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November 2, 2022

Via FedEx & CD-ROM

Dr. Susan Carlson
Director, Division of Biotechnology and GRAS Notice Review
Office of Food Additive Safety (HFS-200)
Center for Food Safety and Applied Nutrition
Food and Drug Administration
5001 Campus Drive
College Park, MD 20740-3835

Re: GRAS Notice for Mitsubishi Chemical Corporation's Sucrose Fatty Acid Esters (SFAE)

Dear Dr. Carlson:

We respectfully submit the attached GRAS Notice on behalf of our client, Mitsubishi Chemical Corporation (MCC), for sucrose fatty acid esters (SFAE). SFAE are intended for use as an emulsifier or stabilizer in chocolate and chocolate-containing products, including imitation and chocolate substitute products, at a use level not to exceed 0.3%. More detailed information regarding product identification, intended use levels, the manufacturing process, and safety of the ingredient is set forth in the attached GRAS Notice.

MCC has determined that its SFAE are GRAS for the intended uses based on scientific procedures in accordance with 21 C.F.R. § 170.30(b) and in conformance with the guidance issued by the Food and Drug Administration (FDA) under 21 C.F.R. § 170.36, 81 Fed. Reg. 54960 (Aug. 17, 2016). Therefore, the use of SFAE, as described in this GRAS Notice, is exempt from the requirement of premarket approval as set forth in the Federal Food, Drug, and Cosmetic Act.

The analytical data, published studies, and information that are the basis for this GRAS Notice are available for FDA review and copying at reasonable times at Keller and Heckman LLP, 1001 G Street, NW, Suite 500W, Washington, DC 20001, or will be sent to the FDA upon request.



Dr. Susan Carlson
November 2, 2022
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We look forward to the agency's review of this submission and would be happy to provide agency officials with any information they may need to complete their assessment. Thank you for your attention to this matter.

Cordially yours,

A solid gray rectangular box used to redact the signature of Frederick A. Stearns.

Frederick A. Stearns

**GRAS Notification for Mitsubishi Chemical Corporation's Sucrose Fatty Acid Esters
(SFAE)**

Prepared for: U.S. Food and Drug Administration
Office of Food Additive Safety (HFS-200)
Center for Food Safety and Applied Nutrition (CFSAN)
5100 Paint Branch Parkway
College Park, MD 20740-3835

Submitted by: Keller and Heckman LLP
1001 G Street, NW
Suite 500W
Washington, DC 20001

Date: November 2, 2022

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Part 1 – Signed Statements and Certification

(1) Applicability of 21 C.F.R. part 170, subpart E

We submit this generally recognized as safe (GRAS) notice in accordance with proposed 21 C.F.R. part 170, subpart E consisting of sections 170.203 through 170.285.

(2) Name and address of the notifier

Company: Mitsubishi Chemical Corporation
Address: 1-1, Marunouchi 1-chrome, Chiyoda-ku
Tokyo 100-8251, Japan
Phone: +81-3-6748-7422
Email: nagai.yukino.me@m-chemical.co.jp

All correspondence regarding this matter is to be sent to Counsel for the Notifier:

Frederick A. Stearns
Keller and Heckman LLP
1001 G Street NW, Suite 500W
Washington, DC 20001
Phone: (202) 434-4288
Email: stearns@khlaw.com

(3) Name of the notified substance

Sucrose fatty acid esters (SFAE)
Sucrose esters of fatty acids

(4) Applicable conditions of use of the notified substance

Mitsubishi Chemical Corporation's (MCC) SFAE are intended for use as an emulsifier or stabilizer in chocolate and chocolate-containing products, including imitation and chocolate substitute products, at a use level not to exceed 0.3%.

(5) Basis for the GRAS determination

Keller and Heckman LLP, on behalf of MCC, hereby notifies the Agency of its determination that the company's SFAE are generally recognized as safe (GRAS), consistent with Section 201(s) of the Federal Food, Drug and Cosmetic Act (FD&C Act). The GRAS conclusion is based on scientific procedures in accordance with 21 C.F.R. § 170.30(a) and (b) and conforms

to the guidance issued by the Food and Drug Administration (FDA) under 21 C.F.R. § 170.36, 81 Fed. Reg. 54960 (Aug. 17, 2016). The GRAS determination has also been evaluated by experts qualified by scientific training and experience to assess the safety of SFAE under the conditions of its intended use in food.

(6) Exclusion from premarket approval

The notified substance is not subject to the premarket approval requirements of the FD&C Act based on our conclusion that the notified substance is GRAS under the conditions of its intended use.

(7) Availability of data and information

If the FDA asks to see the data and information that are the bases for our conclusion of GRAS status, either during or after FDA's evaluation of our notice, we agree to make the data and information available to FDA. Further, upon FDA's request, we will allow the Agency to review and copy the data and information during customary business hours at the above address and will provide FDA with a complete copy of the data and information, either in an electronic format that is accessible for the Agency's evaluation, or on paper.

(8) Applicability of FOIA exemptions

MCC is not claiming any information in Parts 2 through 7 of this GRAS notice as trade secret, confidential, or financial information that is privileged or confidential. Thus, all information and data in this submission are not exempt from disclosure under the Freedom of Information Act (FOIA), 5 U.S.C. Section 552.

(9) Certification

We certify that, to the best of our knowledge, our GRAS notice is a complete, representative, and balanced submission that includes unfavorable information, as well as favorable information, known to us and pertinent to the evaluation of the safety and GRAS status of the use of the substance.

(10) Signature and name and title of the person signing this GRAS notice:



Frederick A. Stearns
Partner
Keller and Heckman LLP

11/2/22
Date

Part 2 – Identity, Method of Manufacture, Specifications, and Physical or Technical Effect

(1) Identity of the Notified Substance

Sucrose fatty acid esters (SFAE) are the mono-, di-, and tri-esters of sucrose with fatty acids and are derived from sucrose and edible vegetable oils and fats. SFAE are white to yellow-brown powders, grains, or flakes. They are prepared in the presence of solvents, such as ethyl acetate, methyl ethyl ketone, dimethyl sulfoxide or isobutanol, as specified in 21 C.F.R. § 172.859 and the *Food Chemicals Codex*.

(2) Description of the Method of Manufacture

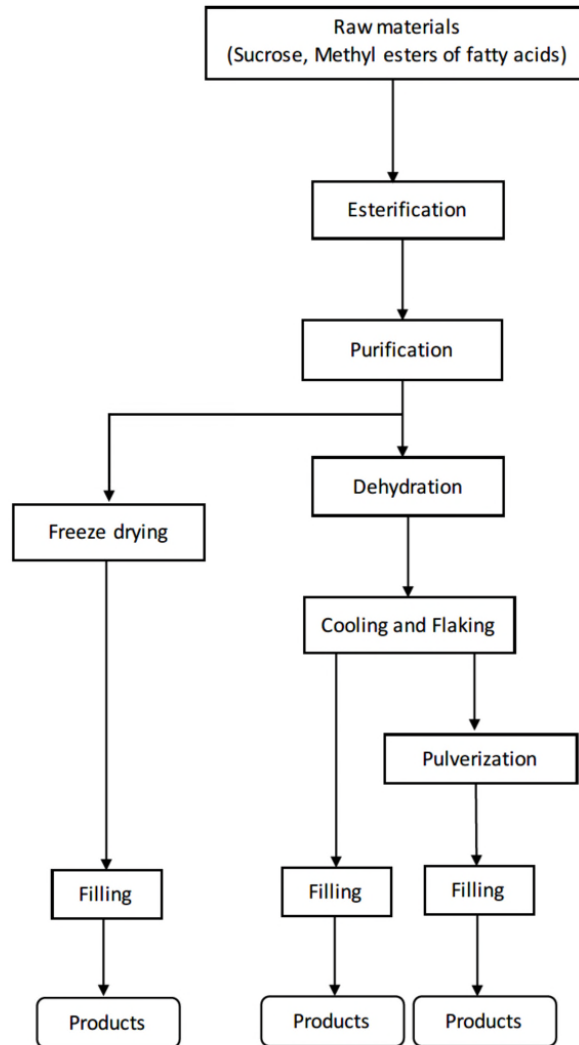
MCC's SFAE are manufactured by inter-esterification of sucrose with methyl esters of fatty acids derived from edible vegetable or hydrogenated edible vegetable oils and fats. The SFAE are prepared in the presence of solvents, such as ethyl acetate, methyl ethyl ketone, dimethyl sulfoxide or isobutanol, as specified in 21 C.F.R. § 172.859 and the *Food Chemicals Codex*.

Upon receipt, the raw materials, sucrose and methyl esters of fatty acids, undergo processes of esterification and purification. In the esterification process, methyl esters of fatty acids are subjected to inter-esterification with sucrose to manufacture the SFAE in the presence of a solvent. The ratio of methyl esters of fatty acids to sucrose establishes the degree of esterification. After the esterification process, the crude reaction product is dissolved in a solvent and then extracted by water to purify. Following the purification process, the substance is either freeze dried, filled, and packaged, or dehydrated, cooled, and flaked. Once cooled and flaked, the substance is either filled and then packaged, or pulverized, filled, and packaged.

The flow chart for the manufacturing of the SFAE is shown in **Figure 1** below. All materials and processing aids used in the manufacture of the SFAE are food-grade.

MCC's SFAE are produced in compliance with the applicable U.S. food safety requirements, including current Good Manufacturing Practices (cGMPs) and hazard analysis and risk-based preventive controls (HARPC) regulations in 21 C.F.R. Part 117, Subpart C.

Figure 1: MCC's SFAE Manufacturing Process



(3) Specifications

All of MCC's SFAE meet the relevant product specifications listed at 21 C.F.R. § 172.859 and in the *Food Chemicals Codex* (Edition 12). MCC's SFAE specifications are included in **Table 1** below.

Table 1: Product Specifications for MCC's SFAE

Parameter	Specification	Method
Assay (Mono-, di-, and tri-esters)	NLT* 80.0%	JECFA High performance liquid chromatography
Free sucrose	NMT** 4.0%	JECFA Gas chromatography
Acid value	NMT 5.0	JECFA Titration method
Residue on ignition	NMT 1.5%	JECFA Sulfating ashing method
Arsenic (as As)	NMT 0.75mg/kg	Inductively coupled plasma mass spectrometry
Heavy metals (as Pb)	NMT 10mg/kg	Sodium sulfide colorimetric method
Lead	NMT 2mg/kg	Atomic absorption spectrometry
Methyl ethyl ketone	NMT 10mg/kg	JECFA Gas chromatography
Ethyl acetate	NMT 350mg/kg	JECFA Gas chromatography
Methanol	NMT 10mg/kg	JECFA Gas chromatography
Dimethylsulfoxide	NMT 2mg/kg	JECFA Gas chromatography
Isobutanol	NMT 10mg/kg	JECFA Gas chromatography
Moisture	NMT 4.0%	Karl Fischer's Method
Aerobic plate count	NMT 300 cfu/g	Japan's Standard Methods of Analysis in Food Safety Regulation
Coliforms	Negative	Japan's Standard Methods of Analysis in Food Safety Regulation
Yeast and mold	Negative	Japan's Standard Methods of Analysis in Food Safety Regulation

* NLT = Not less than

** NMT = Not more than

(4) Batch Analyses

In **Table 2**, MCC has provided analyses from three non-consecutive batches of SFAE that indicate a consistent manufacturing process.

Table 2: Analysis of Three Non-Consecutive Lots of SFAE

Parameter	Specification	Lot 24152211	Lot 25112311	Lot 26072211
Assay (Mono-, di-, and tri-esters)	NLT* 80.0%	Pass	Pass	Pass
Free sucrose	NMT** 4.0%	0.1%	0.2%	0.2%
Acid value	NMT 5.0	2.1	2.3	2.5

Residue on ignition	NMT 1.5%	0.9%	0.9%	1.0%
Arsenic (as As)	NMT 0.75mg/kg	Pass	Pass	Pass
Heavy metals (as Pb)	NMT 10mg/kg	Pass	Pass	Pass
Lead	NMT 2mg/kg	Pass	Pass	Pass
Methyl ethyl ketone	NMT 10mg/kg	Pass	Pass	Pass
Ethyl acetate	NMT 350mg/kg	Pass	Pass	Pass
Methanol	NMT 10mg/kg	Pass	Pass	Pass
Dimethylsulfoxide	NMT 2mg/kg	Pass	Pass	Pass
Isobutanol	NMT 10mg/kg	Pass	Pass	Pass
Moisture	NMT 4.0%	0.6%	0.5%	0.4%
Aerobic plate count	NMT 300 cfu/g	Pass	Pass	Pass
Coliforms	Negative	Pass	Pass	Pass
Yeast and mold	Negative	Pass	Pass	Pass

* NLT = Not less than

** NMT = Not more than

(5) Stability Data

The general stability of MCC's SFAE was assessed by studying a test sample for 30 months at temperatures ranging from 10 - 35°C in a cool, dark, unopened, well-ventilated space. After the sample was stored for 30 months, "acid value," "free sucrose," and "moisture" were analyzed. The results of the stability study are provided in **Table 3**.

Table 3: Stability Data for MCC's SFAE

Parameters	Specification	0 months	30 months
Acid value	NMT 5.0	1.9	2.2
Free sucrose	NMT 4.0%	0.2%	0.1%
Moisture	NMT 4.0%	0.4%	0.7%

(6) Physical or Other Technical Effect

SFAE are intended for use as an emulsifier or stabilizer in chocolate and chocolate-containing products not to exceed 0.3%.

Part 3 – Dietary Exposure

MCC intends to use SFAE in chocolate and chocolate-containing products at a maximum level of 0.3%. The proposed use and existing uses of SFAE are summarized in **Table 4**.

Table 4: Summary of the Individual Approved and Proposed Food Uses and Use-Levels for Sucrose Fatty Acid Esters in the U.S.

Food Category (21 CFR 170.3)	Food-Uses	Sucrose Fatty Acid Esters Use-Level (%)	% Contribution to Mean Total Population Intakes
<i>Approved Food Uses^a</i>			
Alcoholic Beverages	Mixed Drinks, Cocktails, and Dessert Drinks	0.2	4.1
Baked Goods and Baking Mixes	Biscuit Mixes	1.0	4.8
	Cakes	0.5	4.6
	White Breads	0.01 to 0.55	10.6
	White Rolls	0.01 to 0.48	11.0
Beverages and Beverage Bases	Fruit-Flavored Beverages	0.005	0.4
Breakfast Cereals	RTE Breakfast Cereals	0.2	3.6
Chewing Gum	Chewing Gum	0.5	0.1
Confections and Frostings	Frostings	0.5	0.3
Dairy Product Analogs	Coffee Whiteners	0.5	4.0
Fats and Oils	Margarine	0.5	0.4
	Fat Emulsions for Bakery Wares ^b	1.0	0.3
	Mayonnaise and Mayonnaise-Type Dressings	0.5	1.7
	Salad Dressings	0.5	4.9
Fish Products	Surimi-Based Fish Products	1.0	0.0
	Battered Fried Fish Products	0.3	1.3
Fresh Fruits and Vegetables	Raw Fruits	0.0056 to 0.0083	1.1
Frozen Dairy Desserts and Mixes	Ice Cream, Ice Milk, and Sherbet	0.3	8.1
Grain Products and Pastas	Cereal Bars	0.2	0.6
Gravies and Sauces	Sauces and Cooking Sauces	0.5	6.5
Meat Products	Battered Fried Meat Products	0.3	0.2
Milk Products	Dairy-Based Toppings	2.0	0.6
Poultry Products	Battered Fried Poultry Products	0.3	2.1
Processed Fruits and Fruit Juices	Processed Fruit Filling Preparations	0.5	0.0
Processed Vegetables and Vegetable Juices	Battered Fried Vegetable Products	0.3	0.5
Snack Foods	Potato Stick Type Products	0.5	0.1
Other	Fat-Soluble Colors ^c	0.0003 to 2.9 (in final food)	22.0
	Fat-Soluble Flavors ^d		
	Fat-Soluble Nutraceutical Substances ^d		

Food Category (21 CFR 170.3)	Food-Uses	Sucrose Fatty Acid Esters Use-Level (%)	% Contribution to Mean Total Population Intakes
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Proposed Food Uses^e

Soft Candy	Chocolate and Chocolate-Containing products	0.3	6.2
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CFR = Code of Federal Regulations; RTE = ready-to-eat; U.S. = United States.

^a Approved conditions of use based on GRAS Notice (GRN) 514.

^b No food codes for these food uses were available in the NHANES 2017-18 dataset; however, food codes for wafers containing fillings were used as surrogate food codes in line with the previous GRN 514.

^c No food codes were identified for fat-soluble colors in the NHANES 2017-18 dataset; however, food uses and use levels in which β -carotene, lycopene, carmine, turmeric, and turmeric oleoresin are permitted were selected to approximate the consumption of sucrose esters from its proposed use in fat-soluble colors (see Appendix I).

^d No food codes were identified for fat-soluble flavors and fat-soluble nutraceutical substances in the NHANES 2017-18 dataset; however, the use levels for fat-soluble colors was assumed to represent the exposure to all 3 categories (*i.e.*, fat-soluble colors, fat-soluble flavors, and fat-soluble nutraceutical substances).

^e Sucrose fatty acid esters is intended for use in unstandardized products where standards of identity, as established under 21 CFR §130 to 169, do not permit its addition in standardized products.

The Estimated Daily Intake of the proposed uses and the existing uses of SFAE are summarized in **Table 5** and **Table 6** below.

Table 5: Summary of the Estimated Daily Intake of Sucrose Fatty Acid Esters from Approved and Proposed Food Uses in the U.S. by Population Group (2017-2018 NHANES Data)

Population Group	Age Group (Years)	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
Children	2 to 5	336	642	100	470	336	642
Children	6 to 11	548	968	100	681	548	968
Female Teenagers	12 to 19	564	1,126	99.6	448	567	1,126
Male Teenagers	12 to 19	574	1,064	100	444	574	1,064
Female Adults	20 and older	606	1,171	100	2,161	606	1,171
Male Adults	20 and older	786	1,551	99.7	1,973	789	1,557
Total Population	2 and older	649	1,277	99.8	6,177	650	1,277

n = sample size; NHANES = National Health and Nutrition Examination Survey; U.S. = United States.

Table 6: Summary of the Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Approved and Proposed Food Uses in the U.S. by Population Group (2017-2018 NHANES Data)

Population Group	Age Group (Years)	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
Children	2 to 5	19.4	36.8	100	462	19.4	36.8

Population Group	Age Group (Years)	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
Children	6 to 11	17.0	33.4	100	679	17.0	33.4
Female Teenagers	12 to 19	9.3	17.8	99.6	441	9.4	17.8
Male Teenagers	12 to 19	8.8	18.3	100	441	8.8	18.3
Female Adults	20 and older	8.2	16.2	100	2,143	8.2	16.2
Male Adults	20 and older	8.9	17.6	99.7	1,957	9.0	17.6
Total Population	2 and older	9.8	20.0	99.8	6,123	9.8	20.0

bw = body weight; n = sample size; NHANES = National Health and Nutrition Examination Survey; U.S. = United States.

Estimates for the intake of SFAE were based on the existing and proposed food uses and use levels in conjunction with food consumption data included in the U.S. National Center for Health Statistics' (NCHS) National Health and Nutrition Examination Surveys (NHANES) 2017 – 2018 (**Appendix I**). Calculations for the mean and 90th percentile per capita and consumer-only intakes were performed for each of the individual existing and proposed food uses of SFAE and the percentage of consumers were determined. Similar calculations were used to estimate the total intake of SFAE resulting from all existing and proposed food uses of SFAE combined. In both cases, the per person and per kilogram body weight intakes were performed for different age groups.

Based on the exposure estimates summarized in **Appendix I**, approximately 99.6-100% of the total U.S. population was identified as potential consumers of SFAE from existing and proposed food uses (6,123 actual users identified). Consumption of existing and proposed food uses by the total U.S. population resulted in an estimated mean per capita and consumer-only intakes of SFAE of 649 mg/person/day (9.8 mg/kg bw/day) and 650 mg/person/day (9.8 mg/kg bw/day), respectively. The 90th percentile per capita and consumer-only intakes of SFAE from existing and proposed food uses by the total population were both 1,277 mg/person/day (20.0 mg/kg bw/day). Of the individual population groups, male adults were determined to have the greatest mean and 90th percentile consumer-only intakes of SFAE on an absolute basis, at 789 and 1,557 mg/person/day, respectively. The children aged 2-5 years had the lowest mean and 90th percentile consumer-only intakes of 336 and 642 mg/person/day, respectively. On a body weight basis, this age group has the highest mean and 90th percentile intakes, corresponding to 19.4 and 36.8 mg/kg bw/day, respectively, followed by children aged 6-11 years, which are 17.0 and 33.4 mg/kg bw/day, respectively.

It is important to note that these estimates are extremely conservative and likely large overestimates of actual intakes of SFAE in the food supply. In the calculations of estimated intakes, any reported intake of a food corresponding to the proposed and existing use categories (**Table 4**) was assumed to contain added SFAE. Additionally, all foods were assumed to contain the maximum proposed concentration of SFAE per serving. In reality, consumers are more likely to consume only a subset of these foods containing added SFAE, and, additionally, not all products may contain the maximum proposed use levels. Furthermore, it is well established that the length of a dietary survey affects the estimated consumption of individual users. Short-term surveys, such as NHANES the typical 2-day dietary surveys, typically overestimate the consumption of food products that are consumed relatively infrequently.

Part 4 – Self-Limiting Levels of Use

The use of SFAE is not self-limiting.

Part 5 – Experience Based on Common Use in Food Before 1958

The statutory basis for the conclusion of GRAS status of MCC's SFAE in this document is not based on common use in foods before 1958. This GRAS determination is based on scientific procedures.

Part 6 – Narrative

(1) Introduction

The conclusion that MCC’s SFAE are GRAS under the conditions of intended use in chocolate and chocolate-containing products at a maximum level of 0.3% is based on: (1) the composition and manufacturing process of SFAE, (2) the existing regulatory clearances and reviews of SFAE, (3) the safety information on SFAE, and (4) the intended uses that result in safe dietary exposure.

(2) Existing Clearances for SFAE

SFAE are currently permitted for use in a wide variety of food categories. SFAE are permitted as a multipurpose food additive at 21 CFR 172.859 (“Sucrose fatty acid esters”) in accordance with current good manufacturing practice and in an amount not to exceed that reasonably required to accomplish the intended effect for use as emulsifiers as defined in 21 CFR 170.3(o)(8), or as stabilizers as defined in 21 CFR 170.3(o)(28), in baked goods and baking mixes as defined in 21 CFR 170.3(n)(1), in chewing gum as defined in 21 CFR 170.3(n)(6), in coffee and tea beverages with added dairy ingredients and/or dairy product analogues, in confections and frostings as defined in 21 CFR 170.3(n)(9), in dairy product analogues as defined in 21 CFR 170.3(n)(10), in frozen dairy desserts and mixes as defined in 21 CFR 170.3(n)(20), and in whipped milk products. SFAE are further permitted for use as texturizers as defined in 21 CFR 170.3(o)(32) in biscuit mixes, in chewing gum, in confections and frostings, and in surimi-based fabricated seafood products. SFAE are also permitted as components of protective coverings applied to fresh apples, avocados, bananas, banana plantains, limes, melons (honeydew and cantaloupe), papaya, peaches, pears, pineapples, and plums to retard ripening and spoiling.

The FDA has also had no objections to the conclusions that SFAE were generally recognized as safe in four GRAS Notices: GRN 514, GRN 421, GRN 248, and GRN 129. The four GRAS Notices are summarized below.

Table 7: Summary of SFAE GRAS Notices

GRN No.	Substance	Function	Status
514	Sucrose fatty acid esters	For use as an emulsifier, stabilizer and diluent at levels ranging from 0.0003 to 2.9% in multiple food categories.	FDA closure letter: December 3, 2014

421	Sucrose fatty acid esters	For use as surface-active agents (i.e., foaming agents) at a maximum level of 0.2 percent in foams produced using alcoholic beverages	FDA closure letter: August 10, 2012
248	Sucrose fatty acid esters (i.e., sucrose monoesters of lauric acid, palmitic acid, and stearic acid) manufactured by reaction of sucrose with vinyl esters of lauric, palmitic, and stearic acids	For use as emulsifiers in fruit-flavored beverages and beverage concentrates, at levels up to 50 milligrams per Liter as consumed.	FDA closure letter: October 8, 2008
129	Sucrose fatty acid esters	For use as an emulsifier in beta-carotene, beta-apo-8-carotenal (apocarotenal), and canthaxanthin color additive preparations that will be added to beverages, crackers, soups and sauces.	FDA closure letter: November 7, 2003

a. GRN 514: Sucrose Fatty Acid Esters

GRAS Notice 514 (GRN 514) covers SFAE for use as an emulsifier, stabilizer and diluent in breakfast cereals; fats and oils; fish products; grain products and pastas, gravies and sauces; meat products; other; poultry products, processed fruits and fruit juices; and processed vegetables and vegetable juices, at use levels ranging from 0.005 to 1.0% and as a diluent in fat-soluble colors, fat-soluble flavors, and fat soluble nutraceutical substances at use levels of 0.0003 to 2.9% (in final food). As stated in GRN 514, SFAE were not intended to be marketed for infant and toddler foods.

The existing and proposed SFAE food uses and use levels were considered in estimating the cumulative intake of SFAE from all sources. Food codes representative of each proposed food use were chosen from the NHANES 2003-2004, 2005-2006, and 2007-2008 surveys. The cumulative exposure from the existing and proposed uses was estimated for "users only" for all population groups at mean and 90th percentile cumulative intakes at 0.589 g/person (9.6 mg/kg bw/day) and 1.136 g/person (19.1 mg/kg bw/day), respectively. On a body weight basis, the intake of SFAE was over 30 mg/kg bw/day in infants (35.2 mg/kg bw/day) and children (32.7 mg/kg bw/day).

GRN 514 noted that these estimates were likely large overestimates of actual intakes of SFAE resulting from the proposed uses in the food supply. In the calculations of estimated intakes, any reported intake of a food corresponding to one of the proposed as well as the existing use categories

was assumed to contain added SFAE. Additionally, all foods were assumed to contain the maximum proposed concentration of SFAE per serving. It was likely that consumers may consume only a subset of these foods containing added SFAE, and, additionally, not all products may contain the maximum proposed use levels. Therefore, given the methods used in intake estimates, the estimated daily intakes may be overestimated. GRN 514 concluded that SFAE, when used as described, are GRAS, based on scientific procedures. Based on the information provided in GRN 514, the FDA did not question the conclusion that SFAE are GRAS under the intended conditions of use.

b. GRN 421: Sucrose Fatty Acid Esters

GRAS Notice 421 (GRN 421) covers SFAE for use as a surface-active agent (foaming agent) at a maximum level of 0.2% of a foaming alcohol product that will be used as a topping for alcoholic beverages, such as mixed drinks, cocktails, or dessert drinks. The daily intake of SFAE was estimated from foams applied to alcohol-based mixed drinks, using spirit consumption data. GRN 421 assumed that 100% of alcohol-based mixed drinks will be topped with foam made with SFAE at the intended use level, and the EDI was determined to be 0.04 mg/kg bw/day or 2.5 mg/person/day. GRN 421 noted that even when using worst case exposure estimates, the EDI of 2.5 mg/person/day was well below the ADI for SFAE in GRN 129 of 25 mg/kg bw/day or 1500 mg/person/day (approximately 3 orders of magnitude lower). It was also lower than the ADI developed by JECFA of 30 mg/kg bw/day. As such, GRN 421 concluded that SFAE, when used as described, are GRAS, based on scientific procedures. FDA had no questions regarding the notifier's determination that SFAE are GRAS under the intended conditions of use.

c. GRN 248: Sucrose Fatty Acid Esters

GRAS Notice 248 (GRN 248) covers SFAE (i.e., sucrose monoesters of lauric acid, palmitic acid, and stearic acid) manufactured by reaction of sucrose with vinyl esters of lauric, palmitic, and stearic acids, for use as emulsifiers in fruit-flavored beverages and beverage concentrates, at levels up to 50 milligrams per Liter as consumed. GRN 248 estimated that consumption of all foods for which SFAE are proposed for use as well as those in which SFAE are currently permitted for use resulted in estimated mean all-person and all-user intakes of 334.8 mg/person/day (5.7 mg/kg bw/day) and 336.9 mg/person/day (5.7 mg/kg bw/day), respectively. The 90th percentile all-person and all-user intakes of SFAE from all existing and proposed food uses by the total

population were 697.5 mg/person/day (12.6 mg/kg bw/day) and 698.7 mg/person/day (12.6 mg/kg bw/day), respectively. When the intake of SFAE from fruit beverages alone was considered, the estimated all-person and all-user intakes in the total population were determined to be 20.8 mg/person/day (0.30 mg/kg bw/day) and 29.5 mg/person/day (0.43 mg/kg bw/day). The estimated 90th percentile all-person and all-user intakes of SFAE were 53.8 mg/person/day (0.75 mg/kg bw/day) and 63.7 mg/person/day (0.90 mg/kg bw/day). GRN 248 noted that the estimated exposure from the proposed uses represented a small percentage of the current intakes. As the EDIs were lower than the JECFA's ADI of 30 mg/kg bw/day, GRN 248 concluded that SFAE, when used as described, are GRAS, based on scientific procedures. Based on the information provided in GRN 248, the FDA did not question the conclusion that SFAE are GRAS under the intended conditions of use.

d. GRN 129: Sucrose Fatty Acid Esters

GRAS Notice 129 (GRN 129) covers SFAE for use as an emulsifier in beta-carotene, beta-apo-8-carotenol (apocarotenol), and canthaxanthin color additive preparations that will be added to beverages, crackers, soups, and sauces. Carotenoid color preparations to which SFAE are to be added will contain approximately 10% pure carotenoid and a maximum of 4% SFAE. GRN 129 described published studies relating to the absorption, distribution, metabolism, and excretion of SFAE in humans demonstrating that pancreatic lipase in the small intestine completely converts SFAE to sucrose and fatty acids prior to absorption. The notice also described published studies conducted with SFAE, including a subchronic 13-week rodent feeding study and a two-year chronic toxicity/carcinogenicity rodent feeding study. The results of these studies did not show treatment-related adverse effects. The JECFA reviewed SFAE on several occasions and concluded that the data supports an ADI of 30 mg/kg bw/day, which would correspond to 1800 mg/person/day for a 60 kg adult. GRN 129 estimated the cumulative EDI associated with the use of SFAE in the three carotenoid colors, when these colors are added to beverages, crackers, soups, and sauces, is approximately 8 mg/person/day. To estimate the cumulative dietary intake covered by GRN 129 and other approved uses, the notifier considered the entire market for emulsifiers and the market share attributable to sucrose esters. The per capita emulsifier exposure was estimated to be 600 mg/person/day. In the unlikely event that sucrose esters captured 100% of the emulsifier market in the United States, the resulting per capita exposure would be 600 mg/person/day, lower than the ADI. Therefore, GRN 129 concluded that SFAE, when used as described, are GRAS, based on

scientific procedures. FDA had no questions regarding the notifier's determination that SFAE are GRAS under the intended conditions of use.

(3) Regulatory and Scientific Reviews

a. JECFA Evaluations

The Joint FAO/WHO Expert Committee on Food Additives (JECFA) has evaluated SFAE on several occasions. In 1992 and 1995, JECFA evaluated SFAE (and sucroglycerides) and in 1995, it allocated a temporary group ADI of 0–20 mg/kg bw per day and requested a well-designed and well-conducted human tolerance study for review.¹ The ADI of 0–20 mg/kg bw/day was based on a chronic toxicity/carcinogenicity study in which no adverse effects were reported in rats fed diet at levels up to 5%, equivalent to 1970 and 2440 mg/kg bw/day in males and females, respectively. The ADI was rounded to be 20 mg/kg bw/day by applying the standard 100-fold safety factor to the lower NOAEL of 1970 mg/kg bw/day for male rats.

In 1997, JECFA evaluated the requested human tolerance study and established a group ADI of 0–30 mg/kg bw per day for SFAE and sucroglycerides.² In the previous study in humans, single doses of 1.5-3.0 g, or divided doses of 3.0-4.5 g per day for 5-7 days, induced laxation and related abdominal symptoms. The results from the new study in humans indicated an absence of effects of SFAE on the frequency and appearance of feces and related abdominal symptoms in men and women ingesting a divided daily dose of 1.5 g of SFAE (equal to 27 and 29 mg/kg bw/day, respectively) for 5 days. As no systemic effects were observed in the chronic toxicity/carcinogenicity study that was well conducted in rats up to the highest dose tested, 1970 mg/kg bw/day, a group ADI of 0-30 mg/kg bw/day for SFAE and sucroglycerides was allocated on the basis of the new study in humans without the application of a safety factor.

¹ WHO (World Health Organization), 1995. Evaluation of certain food additives and contaminants. Sucrose esters of fatty acids and sucroglycerides. Forty-fourth report of the Joint FAO/WHO Expert Committee on Food Additives (JECFA). WHO Technical Report Series, 859, 12–14.

² WHO (World Health Organization), 1998. Safety evaluation of certain food additives and contaminants. Sucrose esters of fatty acids and sucroglycerides. Prepared by the forty-ninth meeting of the Joint FAO/WHO Expert Committee on Food Additives (JECFA). WHO Food Additives Series, No. 40.

The specifications for SFAE (not less than 80% sucrose esters) have been prepared by JECFA at its 68th meeting in 2007.³ In 2009, JECFA confirmed the group ADI of 0-30 mg/kg bw/day for SFAE, sucroglycerides, and sucrose oligoesters type I and type II.⁴ In 2010, JECFA established a group ADI of 0-30 mg/kg bw/day for sucrose monoesters of lauric, palmitic, or stearic acid together with sucrose esters of fatty acids, sucroglycerides, sucrose oligoesters type I and type II and the new tentative specifications were prepared at the 73rd JECFA (2010).⁵ The specifications were revised and the tentative status was removed at the 74th JECFA (2011).⁶

More recently in 2021, JECFA evaluated exposure assessment on SFAE and sucrose oligoesters (SOEs) types I and II.⁷ The dietary exposure estimates for some age groups exceeded the group ADI of 0–30 mg/kg bw/day. The high dietary exposure estimate of the sum of SFAE and SOEs of 113 mg/kg bw per day for children aged 3–9 years exceeds the ADI by a factor of about 4. The Committee noted that the high dietary exposure estimates are conservative, predominantly due to the assumptions that (1) all foods that could contain SOEs and SFAE do in fact contain these food additives, whereas other food additives with the same functions in foods are available; and (2) when SFAE or SOEs are used, they are always present at the reported use levels. Therefore, the Committee considered that more refined dietary exposure estimates should be provided. To refine the dietary exposure estimates of SFAE and SOEs, either alone or summed, the Committee

³ JECFA (Joint FAO/WHO Expert Committee on Food Additives), 2007. Sucrose esters of fatty acids. Prepared at the 68th JECFA (2007) and published in FAO JECFA Monographs 4.

⁴ JECFA (Joint FAO/WHO Expert Committee on Food Additives), 2009. The Summary report of the 71st JECFA meeting, 16 - 24 June 2009. Issued 1 July 2009. JECFA/71/SC.

⁵ JECFA (Joint FAO/WHO Expert Committee on Food Additives), 2010. Sucrose Monoesters of Lauric, Palmitic or Stearic Acid (Tentative). Prepared at the 73rd JECFA (2010) and published in FAO JECFA Monographs 10, available at: https://www.ipcinfo.org/fileadmin/user_upload/jecfa_additives/docs/monograph10/additive-521-m10.pdf; JECFA (Joint FAO/WHO Expert Committee on Food Additives), 2010. The Summary report of the 73rd JECFA meeting, 8 – 17 June 2010. Issued 24 June 2010. JECFA/73/SC, available at: <https://www.fao.org/3/at862e/at862e.pdf>.

⁶ JECFA (Joint FAO/WHO Expert Committee on Food Additives), 2011. The Summary report of the 74th JECFA meeting, 14 – 23 June 2011. Issued 4 July 2011. JECFA/74/SC, available at: <https://www.fao.org/3/at873e/at873e.pdf>.

⁷ WHO (World Health Organization), 2021. Evaluation of certain food additives. Sucrose esters of fatty acids (INS 473) and sucrose oligoesters types I and II (INS 473a). Eighty-ninth report of the Joint FAO/WHO Expert Committee on Food Additives (JECFA). WHO Technical Report Series, 1027, 38–42.

recommended that sponsors submit information on: (1) typical or mean and high use levels for foods in which the food additives are used; and (2) foods (or food categories) in which the use of SFAE and/or SOEs is permitted but in which they are never used.

b. EFSA Evaluations

In the European Union, SFAE (E 473) are authorized for use in a variety of foods via Directive 95/2/EC of the European Parliament and Council on food additives. In 1992, Scientific Committee for Food (SCF) evaluated SFAE and established a group ADI of 0-20 mg/kg bw/day (expressed as sucrose monostearate) for SFAE and sucroglycerides derived from palm oil, lard, and tallow fatty acids, providing that specifications would limit the presence of tetra and higher esters to 7%.⁸ The basis for establishing a numerical ADI was not specified by the SCF and no report was issued.

In 2004, EFSA evaluated the safety of SFAE in the light of new studies on short- and long-term toxicity in experimental animals as well as laxative effects in human studies.⁹ The NOAEL was established at 5% SFAE in the diet of rats, equal to 1970 mg/kg bw/day in male rats from the new 2-year chronic toxicity/carcinogenicity study. Concern about a potential laxative effect in humans was raised by results from an inadequate study in which laxation and related abdominal symptoms were reported in humans ingesting doses of SFAE exceeding 2 g/day equivalent to 33 mg/kg bw/day. In a subsequent well-designed and conducted human tolerance study, no adverse effects were observed in men and women receiving divided daily doses of 1.5 g SFAE in bread for 5 days (equal to 27 mg/kg bw/day in men and 29 mg/kg bw/day in women). This was the only dose level tested, and it was lower than the dose range (33 – 75 mg/kg bw/day) reported to produce gastrointestinal symptoms in the first study.

EFSA considered all the toxicity data with an overall NOAEL of 2000 mg/kg bw/day, data from the human tolerance study and with the application of an uncertainty factor of 50, a group ADI of 40 mg/kg bw/day was established for SFAE (E 473) and sucroglycerides (E474). However, in

⁸ SCF (Scientific Committee on Food), 1992. Minutes of the 83rd Meeting of the Scientific Committee for Food held on 10 April 1992 in Brussels. Commission of the European Communities, Director.

⁹ EFSA (European Food Safety Authority), 2004. Opinion of the Scientific Panel on food additives, flavourings, processing aids and material in contact with food (AFC) on sucrose esters fatty acids, E 473 and glucoglycerides, E 474 based on a request from the Commission related to sucrose esters of fatty acids (E 473). The EFSA Journal 2004;2(10):106, 24 pp. Modified on 25 January 2006. Available online: <http://www.efsa.europa.eu/en/efsajournal/doc/106.pdf>

view of the human tolerance studies, the Panel pointed out that at daily doses higher than 2 g/day in adults, these substances may cause gastrointestinal symptoms. This ADI covers products containing mono-, di- and triesters with a content of tetra and higher esters of no more than 10%.

Based on the available data, conservative estimates of the intake of SFAE and sucroglycerides may lead to exposures in excess of the ADI of 40 mg/kg bw per day for SFAE (E 473) and sucroglycerides (E 474). In young children (under 3 years, standard body weight of 15 kg) estimates varied from 45 to 75 mg/kg bw/day. Based on Maximum Permitted Levels, for a variety of foods and beverages, a single eating occasion would lead to intakes of SFAE (E 473) and sucroglycerides (E 474) in the range of 1 g. High intakes on a one-day basis could therefore be expected, particularly in children. As such, it was suggested that refined chronic intake estimates were needed.

In 2010, the ADI of 40 mg/kg bw/day was reaffirmed when EFSA reviewed the safety of SFAE prepared from vinyl esters of fatty acids and on the extension of use of SFAE in flavorings in order to improve solubility of the flavoring in water based beverages.¹⁰ It was concluded that an additional use of SFAE in fruit beverages only contributes to a few percent of the group ADI of 40 mg/kg bw/day for SFAE (E 473) and sucroglycerides (E 474) established by EFSA in 2004. An intake estimate calculated for foodstuffs in the Irish adult population give a mean dietary exposure to SFAE of 29.1 mg/kg bw/day, and of 64.2 mg/kg bw/day at the 95th percentile. The mean dietary exposure of Irish children aged 5-12 years was 51.6 mg/kg bw/day, and 117.3 mg/kg bw/day at the 95th percentile. For both groups (average intake and high-level consumers), the estimated intakes were above the ADI. The Panel noted that the main contribution to total dietary exposure to SFAE was from its use as surface treatment for fruits (on average 40-50%) and suggested that for a more refined estimate of intake, actual data on this use would need to be known.

¹⁰ EFSA Panel on Food Additives and Nutrient Sources added to Food (ANS); Scientific Opinion on the safety of sucrose esters of fatty acids prepared from vinyl esters of fatty acids and on the extension of use of sucrose esters of fatty acids in flavourings on request from the European Commission. EFSA Journal 2010;(3):1512. [36 pp.]. doi:10.2903/j.efsa.2010.1512. Available online: www.efsa.europa.eu

Subsequently in 2012, new data were submitted to EFSA providing actual use levels of SFAE as a surface treatment for fresh fruits and the resulting residual levels in fruit.¹¹ A new exposure assessment was based on this information and taking into account an additional proposed use in flavorings. It was concluded that the exposure to SFAE resulting from its use as a surface treatment for fruits represents less than 0.25% of the ADI. Further, the exposure resulting from an additional use of SFAE in clear flavored soft drinks would only represent less than 0.1% of the ADI. However, it was noted that the estimated intake of SFAE was considerably lower than previously estimated but was still above the ADI for children high level consumers. The mean and high (95th percentile) total intake of SFAE were 13.1 and 22.6 mg/kg bw/day for adults and 19.6 and 42.8 mg/kg bw/day for children, respectively. For children high level consumers, the estimated intake exceeded the ADI of 40 mg/kg bw/day by 7%.

In 2017, EFSA performed a refined exposure assessment of SFAE (E 473) when used as a food additive.¹² The Panel concluded that the exposure to SFAE (E 473) exceeded the ADI of 40 mg/kg bw per day for many population groups; especially toddlers and children, and that assuming that SFAE (E 473) is not used in the 24 food categories where data was not provided, the current exposure estimates very likely overestimate the real exposure to SFAE (E 473). The highest mean and 95th percentile refined exposure estimates in the brand-loyal scenario were 54 and 124 mg/kg bw per day, respectively, in toddlers (12–35 months) and children (3–9 years). The Panel recommended the collection of more detailed data (reported use levels from industry) for the food category contributing most to the exposure to SFAE (E 473): fine bakery wares as well as monitoring data for certain type of favored drinks. These data should allow for a more precise mapping of use levels to foods, and thus result in more realistic estimates of exposure to SFAE (E 473) via food.

¹¹ EFSA Panel on Food additives and Nutrient Sources added to Food (ANS); Scientific Opinion on the exposure assessment of sucrose esters of fatty acids (E 473) from its use as food additive. *EFSA Journal* 2012;10(5):2658. [11 pp.] doi:10.2903/j.efsa.2012.2658. Available online: www.efsa.europa.eu/efsajournal

¹² EFSA ANS Panel (EFSA Panel on Food Additives and Nutrient Sources added to Food), Younes M, Aggett P, Aguilar F, Crebelli R, Dusemund B, Filipi_c M, Frutos MJ, Galtier P, Gott D, Gundert-Remy U, Kuhnle GG, Lambr_e C, Lillegaard IT, Moldeus P, Mortensen A, Oskarsson A, Stankovic I, Waalkens-Berendsen I, Woutersen RA, Wright M, Boon P, Lindtner O, Tlustos C, Tard A and Leblanc J-C, 2018. Scientific Opinion on the refined exposure assessment of sucrose esters of fatty acids (E 473) from its use as a food additive. *EFSA Journal* 2018;16(1):5087, 22 pp. <https://doi.org/10.2903/j.efsa.2018.5087>

In summary, JECFA and EFSA have reviewed SFAE several times over the years and established an ADI of 30 mg/kg bw/day and 40 mg/kg bw/day, respectively. Both JECFA and EFSA estimated exposure of SFAE from foods, which exceeded the ADIs for some population groups such as young children. They acknowledged that the exposure estimates very likely overestimated the real exposure to SFAE and recommended more refined and realistic estimates.

c. Safety Studies

The biological and toxicological data on SFAE have been previously reviewed by FDA, JECFA, and EFSA. A literature search did not yield any new safety studies on SFAE.

The test compounds in the below safety studies, which were reviewed by FDA, JECFA, and EFSA, were S-570 and S-1170. Both compounds were manufactured by MCC. Specifically, S-570 is a mixture consisting of 29% monoesters, 35% diesters, 25% triesters, and 11% tetra and higher esters with a fatty acid composition containing about 70% stearic acid and 30% palmitic acid. S-1170 is a mixture consisting of 57% monoesters, 28% diesters, 10% triesters, and 1% tetra and higher esters with a fatty acid composition containing about 70% stearic acid and 30% palmitic acid.

Metabolic and pharmacokinetic studies on SFAE *in vitro*, in rats, dogs, and humans indicated that these esters were extensively hydrolyzed in the gastrointestinal tract into well-known food constituents prior to absorption, that only small amounts of intact monoesters were absorbed, and that incompletely hydrolyzed sucrose esters appeared to be excreted in the feces. There was no evidence of tissue accumulation of the absorbed monoesters, and they were completely metabolized to carbon dioxide or integrated into other endogenous constituents.¹³ A small amount of the di-, tri-, and tetra-esters is hydrolyzed or partially hydrolyzed to form edible fatty acids, free sucrose, and/or sucrose esters with a lower degree of esterification, and the rest is excreted unchanged. It is expected that the metabolism of SFAE would be the same in children.

A 2-year combined chronic oral toxicity (14 rats/sex/dose for 52 weeks) and carcinogenicity study (50 rats/sex/dose for 104 weeks) was performed in rats. The rats were fed a diet containing S-570 at 0, 1%, 3% or 5% in the diet; or 394, 1160, or 1970 mg/kg bw/day in males and 480, 1440 or 2440 mg/kg bw/day in females. Survival at 52 (100%) and 104 weeks (66-76%) was not affected by the treatment. Food efficiency was not affected, but an initial reduction in food intake in both

¹³ See footnote 9 (EFSA, 2004).

sexes was observed for a few weeks in the mid- and high-dose groups. A reduced body weight gain was observed with random incidence during the first 49 weeks in the high dose males. However, during the second year of the study, body weight progression was normal. Some statistically significant changes were observed in hematologic analysis such as the mean corpuscular volume (MCV), red blood cell count, hemoglobin concentration, mean corpuscular hemoglobin concentration (MCHC), and platelet count. These changes were considered by the authors to be small and not considered toxicologically significant. No effects of the treatment were seen in the clinical chemistry parameters or at the ophthalmological examinations.

In the 104 weeks study, at termination, absolute and relative spleen weights were increased in males in the 3% and 5% groups and in females in the 3% (but not in females at 5%) group. The authors considered that the changes in spleen weight and hematological parameters were most likely caused by the occurrence of large granular lymphocyte (LGL) leukemia. Aged rats of this strain normally have a high incidence of LGL leukemia that can be as high as 24% for males and 25% for females. In this experiment, the LGL leukemia frequencies in the groups receiving 0%, 1%, 3% and 5% of test material were 7/50, 9/50, 11/50 and 12/50 in males and 10/50, 7/50, 14/50 and 13/50 in females, respectively. Thus, LGL leukemia was a common neoplasm in all groups but was slightly increased without statistical significance at the two top doses. However, when the rats that showed LGL leukemia were removed from the spleen weight determinations, no differences were seen between treated and control rats. Consistent with the higher incidence of LGL leukemia in the high-dose group, there were associated non-neoplastic findings; extramedullary hematopoiesis in the spleen and hematopoietic hyperplasia in the bone marrow was slightly (but not significantly) increased in the high-dose groups. The incidences of other neoplastic and non-neoplastic changes were not affected by the treatment with S-570. Thus, the authors concluded that the NOAEL in the 104 weeks study was 5% S-570 in the diet, equivalent to 1970 mg/kg bw/day in males and 2440 mg/kg bw/day in females.¹⁴

Two human tolerance studies with SFAE (S-1170) are available.¹⁵ In the first study, no clinical symptoms were observed in the three persons who received a single dose of 1 g S-1170 in 200 mL

¹⁴ Takeda K, Flood M. Chronic toxicity and carcinogenicity of sucrose fatty acid esters in Fischer 344/DuCrj rats. *Regul Toxicol Pharmacol*. 2002 Apr;35(2 Pt 1):157-64. doi: 10.1006/rtph.2001.1502. PMID: 12052001.

¹⁵ See footnote 9 (EFSA, 2004).

orange juice. However, soft stools or diarrhea were observed after single doses of 2 g and 3 g S-1170 in 4/6 and 3/3 subjects, respectively. The incidence and severity of these symptoms increased with dose. When five individuals ingested 1 g twice daily (2 g/day) for 5 days, no clinical symptoms developed. The dose of 2 g/day is equivalent to 33 mg/kg bw/day assuming 60 kg body weight.

No symptoms of laxation were observed in the volunteers who ingested 1 g of S-1170 in bread, but a single dose of 1.5 g or 2 g of S-1170 in bread, treatment related soft stool or diarrhea were observed in 1/5 or 3/5 of the subjects, respectively. In the multiple dose studies, treatment related increases in laxation were observed in 4/5 subjects receiving 1.5 g three times daily for 7 days, in 2/5 persons receiving 1 g three times daily for 5 days, and in 1/5 subjects receiving 1 g two times daily for 5 days. Treatment related clinical symptoms, besides laxation, were a feeling of enlarged abdomen, borborygmus, abdominal pain, flatus, suprapubic discomfort and nausea. These abdominal symptoms, noted during 1 to 10 h after the administration, were transient and slight and tended to subside by 24 hours. There were no treatment-related changes in the results of physical examinations or in hematology, clinical chemistry urinalysis parameters. It was noted that this study had significant deficiencies, most notable in the limited size of the study groups and the lack of controls.

Subsequently, to further evaluate the laxative effects of S-1170, a second study was conducted using a double-blind, cross-over design on an in-patient basis. This study was a well-designed and well-controlled human tolerance study. Ten men and ten women, age 21-35 years, participated. Twice daily for 5 days they consumed a serving of bread containing 0.75 g of S-1170 (1.5 g/day, equal to 27 mg/kg bw/day in men and 29 mg/kg bw/day in women) or control bread. After a 6-day interval, the treatment groups were reversed for the next 5 days treatment period. The results showed that there was no treatment-related effect on the frequency of fecal excretion either in males or females. Incidents of changes in fecal consistency (“muddy” or “watery”) occurred in a few subjects, whereas “soft” feces lasting for 1 to 4 days was observed in several subjects regardless of whether they were consuming control bread or S-1170 containing bread. No treatment-related effects were recorded at day 7 (1½ days after the final dose) in blood pressure, pulse, breath rate, body temperature and body weight, or in the standard battery of hematological, clinical chemistry and urinalysis parameters. This was the only dose level tested in this study, and

it was lower than the dose range (33 – 75 mg/kg bw/day) reported to produce symptoms of laxation in the first study.

In summary, a NOAEL was established at 5% SFAE in the diet of rats, equal to 1970 mg/kg bw/day in males from the 2-year chronic toxicity/carcinogenicity study. A potential laxative effect in humans was raised from an inadequate study in which laxation and related abdominal symptoms were reported in humans ingesting doses of sucrose esters of fatty acids exceeding 2 g/day equivalent to 33 mg/kg bw/day. In a subsequent well designed and conducted human tolerance study no adverse effects were observed in volunteers receiving divided daily doses of 1.5 g sucrose esters of fatty acids in bread for 5 days (equal to 27 mg/kg in men and 29 mg/kg in women).

(4) Discussion and Conclusion

As estimated in Part 3, based on food consumption data NHANES 2017 – 2018, approximately 99.6-100% of the total U.S. population was identified as potential consumers of SFAE from existing and proposed food uses. As such, the per capita and consumer-only intake values are either very close or the same. For the total U.S. population, consumption of existing and proposed food uses resulted in an estimated mean per capita and consumer-only intakes of SFAE of 649 mg/person/day (9.8 mg/kg bw/day) and 650 mg/person/day (9.8 mg/kg bw/day), respectively. The 90th percentile per capita and consumer-only intakes of SFAE from existing and proposed food uses by the total population were both 1,277 mg/person/day (20.0 mg/kg bw/day). Of the individual population groups, male adults were determined to have the greatest mean and 90th percentile consumer-only intakes of SFAE on an absolute basis, at 789 and 1,557 mg/person/day, respectively. The children aged 2-5 years had the lowest mean and 90th percentile consumer-only intakes of 336 and 642 mg/person/day, respectively. On a body weight basis, children aged 2-5 years group has the highest mean and 90th percentile intakes corresponding to 19.4 and 36.8 mg/kg bw/day, respectively, followed by children aged 6-11 years, which are 17.0 and 33.4 mg/kg bw/day, respectively. At the 90th percentile, these intakes slightly exceed JECFA's ADI of 30 mg/kg bw/day and are still below EFSA's ADI of 40 mg/kg bw/day.

As discussed previously in the reviews by JECFA and EFSA, the estimate exposure of SFAE from foods exceeded the ADIs for some population groups, especially toddlers and children, as the estimates very likely overestimated the real exposure to SFAE. In the most recent EFSA refined exposure assessment of SFAE, the highest mean and 95th percentile refined exposure estimates in

the brand-loyal scenario were 54 and 124 mg/kg bw per day, respectively, in toddlers (12–35 months) and children (3–9 years). In JECFA 2021 exposure assessment on SFAE and sucrose oligoesters (SOEs) types I and II, the high dietary exposure estimate of the sum of SFAE and SOEs is 113 mg/kg bw per day for children aged 3–9 years. In these populations, the estimate exceeds the group ADI of 30 mg/kg bw/day or 40 mg/kg bw/day by JECFA or EFSA, respectively. Both JECFA and EFSA acknowledged that the exposure estimates overestimated the real exposure to SFAE and recommended more refined and realistic estimates.

Similarly, the NHANES consumption estimates are extremely conservative and very likely overestimates of actual intakes of SFAE from the proposed and existing uses. Any reported intake of a food corresponding to the proposed and existing use categories was assumed to contain added SFAE. All foods were assumed to contain the maximum proposed concentration of SFAE per serving; while not all products may contain the maximum proposed use levels. In addition, the cumulative exposure assumes the consumer would consume all proposed and existing food categories containing added SFAE daily, while consumers may consume only a subset of these foods. This is especially the case for the conservatively estimated 90th percentile intakes of 36.8 mg/kg bw/day and 33.4 mg/kg bw/day for children aged 2-5 years and 6-11 years, respectively. Therefore, we conclude that there is no safety or health concern of SFAE use in chocolate and chocolate-containing products in children (or any other population groups), in addition to its uses in the existing foods.

Further, in the human tolerance study, when S-1170 was dosed multiple times throughout the day, rather than a single dose, there was no laxative effects in the volunteers even when the dose exceeded 2 g/day. The multiple dosing in the study is more aligned with what would occur in the real life where the consumer consumes different foods containing SFAE on different occasions during the day. As such, the potential laxative effects by single dosing observed in the first human study is not expected for children (or any other population groups) at the estimated intakes. There are no studies identified in the literature showing that children and adults would metabolize SFAE differently.

In the current EU legislation (Annex II of Regulation (EC) No 1333/2008), use levels of additives in foods for infants under the age of 12 weeks are included in food categories (FCs) 13.1.1, 13.1.5.1

and 13.1.5.2.¹⁶ SFAE (E 473) is also authorized in these categories. When EFSA in 2018 conducted refined exposure assessment of SFAE for its use as a food additive, infants (12 weeks-11 months), toddlers (12-35 months), and children (3-9 years) were among the population groups assessed. The dietary exposures in toddlers and children are significantly higher than that in adults. No safety or health issues have been reported or raised in these young population groups. By the same token, the slight increase in dietary exposure of SFAE from chocolate and chocolate-containing products would not be expected to have any safety or health concern in children. Based on the metabolic studies, SFAE is either hydrolyzed in the gastrointestinal tract into normal dietary constituents prior to absorption in very small amounts or unabsorbed and excreted in the feces. These normal dietary constituents, such as fatty acids and sucrose in small amounts, are not expected to affect mineral or vitamin consumption or absorption.

In conclusion, based on a critical evaluation and analysis of the information and literature available on SFAE discussed above, it is concluded that there is reasonable certainty that SFAE are safe and are Generally Recognized as Safe (GRAS), by scientific procedures for use in chocolate and chocolate-containing products at a maximum level of 0.3%.

¹⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02008R1333-20170612&from=EN>
Food of category 13.1.1: Infant formulae as defined by Directive 2006/141/EC; Food of category 13.1.5.1: Dietary foods for infants for special medical purposes and special formulae for infants. This interpretation also applies to those food additives in food category 13.1.5.2 (Dietary foods for babies and young children for special medical purposes as defined in Directive 1999/21/EC) for which exceptional uses in food for infants under the age of 12 weeks are indicated.

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Appendix I

ESTIMATED DAILY INTAKE OF SUCROSE FATTY ACID ESTERS BY THE U.S. POPULATION FROM PROPOSED FOOD USES (2017-2018 NHANES)

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Estimated Daily Intake of Sucrose Fatty Acid Esters by the U.S. Population from Proposed Food Uses (2017-2018 NHANES)

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Estimated Daily Intake of Sucrose Fatty Acid Esters by the U.S. Population from Approved and Proposed Food Uses (2017-2018 NHANES)

1.0 INTRODUCTION

In the United States (U.S.), sucrose fatty acid esters (SFAE) has previously been concluded to be Generally Recognized as Safe (GRAS) for use in alcoholic beverages; baked goods and baking mixes; beverages and beverage bases; breakfast cereals; chewing gum; confections and frostings; dairy product analogs; fats and oil; fish products; fresh fruits and vegetables; frozen dairy desserts and mixes; grain products and pastas; gravies and sauces; meat products; milk products; poultry products; processed fruits and fruit juices; processed vegetables and vegetable juices; snack foods; and fat-soluble colors, flavors, and nutraceutical substances (GRAS Notice [GRN] 514 – U.S. FDA, 2014). In addition to the conditions of use previously notified as GRAS, Keller and Heckman is proposing use of SFAE in chocolate and chocolate-containing products (Table 3-1).

Estimates for the intake of SFAE were based on the proposed food uses and use levels for SFAE in conjunction with food consumption data included in the U.S. National Center for Health Statistics' National Health and Nutrition Examination Surveys (NHANES) 2017-2018. Calculations for the mean and 90th percentile *per capita* and consumer-only intakes were performed for all proposed food uses of SFAE and the percentage of consumers were determined. Similar calculations were used to estimate the intake of SFAE resulting from each individual proposed food use, including the calculations of percent consumers. In both cases, the per person and per kilogram body weight intakes were reported for the following population groups:

- Children, ages 2 to 5 years;
- Children, ages 6 to 11 years;
- Female teenagers, ages 12 to 19 years;
- Male teenagers, ages 12 to 19 years;
- Female adults, ages 20 years and older;
- Male adults, ages 20 years and older; and
- Total population (ages 2 years and older, and both gender groups combined).

2.0 FOOD CONSUMPTION SURVEY DATA

2.1 Survey Description

NHANES for the years 2017-2018 are available for public use (CDC, 2021a,b; USDA, 2021a,b). NHANES are conducted as continuous, annual surveys, and they are released in 2-year cycles. During each year of the ongoing NHANES program, individuals from the U.S. are sampled from up to 30 different study locations in a complex multi-stage probability design intended to ensure the data are a nationally representative sample of the U.S. population.

NHANES 2017-2018 dietary survey data were collected from individuals and households *via* 24-hour dietary recalls administered on 2 non-consecutive days (Day 1 and Day 2) throughout all 4 seasons of the year. Day 1 data were collected in-person, and Day 2 data were collected by telephone in the following 3 to 10 days, on different days of the week, to achieve the desired degree of statistical independence. The data were collected by first selecting primary sampling units (PSUs), which were counties throughout the U.S., of which 30 PSUs are visited per year. Smaller contiguous counties were combined to attain a minimum population size. These PSUs were segmented, and households were chosen within each segment. One or more participants within a household were interviewed. For NHANES 2017-2018, 16,211 individuals were selected for the sample, 9,254 were interviewed (51.9%), and 8,704 were examined (48.8%).

In addition to collecting information on the types and quantities of foods being consumed, NHANES 2017-2018 collected socio-economic, physiological, and demographic information from individual participants in the survey, such as sex, age, body weight, and other variables (such as height and race-ethnicity) that may be useful in characterizing consumption. The inclusion of this information allows for further assessment of food intake based on consumption by specific population groups of interest within the total population. The primary sample design for NHANES 2017-2018 includes an oversample of non-Hispanic Asian persons, Hispanic persons, non-Hispanic black persons, non-Hispanic white and “other” older persons (≥ 80 years), and non-Hispanic low income white and “others” persons ($\leq 185\%$ of the Department of Health and Human Services poverty guidelines); however, sample weights were incorporated to allow estimates from these subgroups to be combined to obtain national estimates that reflect the relative proportions of these groups in the population as a whole (CDC, 2021a,b; USDA, 2021a,b).

2.2 Statistical Methods

For the intake assessment, consumption data from individual dietary records, detailing food items ingested by each survey participant, were collated by computer and used to generate estimates for the intake of SFAE by the U.S. population.¹ Estimates for the daily intake of SFAE represent projected 2-day averages for each individual from Day 1 and Day 2 of NHANES 2017-2018 (*i.e.*, a value was established for each person). From these average amounts, a distribution was established from which the mean and percentile intake estimates for the cohort of interest were determined, which incorporated survey weights in order to provide representative intakes for the entire U.S. population. “*Per capita*” intake refers to the estimated intake of SFAE averaged over all individuals surveyed, regardless of whether they consumed food products in which SFAE is proposed for use, and therefore includes individuals with “zero” intakes (*i.e.*, including individuals who reported no intake of food products containing SFAE during the 2 survey days). “Consumer-only” intake refers to the estimated intake of SFAE by only those individuals who reported consuming food products of interest on either Day 1 or Day 2 of the survey.

Mean and 90th percentile intake estimates based on sample sizes of less than 30 and 80, respectively, may not be considered statistically reliable due to the limited sampling size (CDC, 2013). As such, the reliability of estimates for the intake of SFAE based on consumption estimates derived from individual population groups of a limited sample size should be interpreted with caution. These values are marked with an asterisk in the relevant data tables.

¹ Statistical analysis and data management were conducted in DaDiet Software (Dazult Ltd., 2018). DaDiet Software is a web-based software tool that allows accurate estimate of exposure to nutrients and to substances added to foods, including contaminants, food additives and novel ingredients. The main input components are concentration (use level) data and food consumption data. Data sets are combined in the software to provide accurate and efficient exposure assessments.

3.0 FOOD USAGE DATA

The food uses and use levels for SFAE employed in the current intake analysis are summarized in Table 3-1. Food codes representative of each food use were chosen from the NHANES 2017-2018 (CDC, 2021b). Food codes were grouped in food use categories according to Title 21, Section §170.3 of the *Code of Federal Regulations* (U.S. FDA, 2021a). If necessary, product-specific adjustment factors were developed for composite foods/mixtures based on data provided in the Food and Nutrient Database for Dietary Studies (USDA ARS, 2021a,b) or the Food Commodity Intake Database (U.S. EPA & USDA, 2021). All food codes included in the current intake assessment are listed in Appendix D.

Table 3-1 Summary of the Individual Approved and Proposed Food Uses and Use Levels for Sucrose Fatty Acid Esters in the U.S.

Food Category (21 CFR §170.3) (U.S. FDA, 2021a)	Food Uses	Sucrose Fatty Acid Esters Use Level (%)
Approved Food Uses^a		
Alcoholic Beverages	Mixed Drinks, Cocktails, and Dessert Drinks	0.2
Baked Goods and Baking Mixes	Biscuit Mixes	1.0
	Cakes	0.5
	White Breads	0.01 to 0.55
	White Rolls	0.01 to 0.48
Beverages and Beverage Bases	Fruit-Flavored Beverages	0.005
Breakfast Cereals	RTE Breakfast Cereals	0.2
Chewing Gum	Chewing Gum	0.5
Confections and Frostings	Frostings	0.5
Dairy Product Analogs	Coffee Whiteners	0.5
Fats and Oils	Margarine	0.5
	Fat Emulsions for Bakery Wares ^b	1.0
	Mayonnaise and Mayonnaise-Type Dressings	0.5
	Salad Dressings	0.5
Fish Products	Surimi-Based Fish Products	1.0
	Battered Fried Fish Products	0.3
Fresh Fruits and Vegetables	Raw Fruits	0.0056 to 0.0083
Frozen Dairy Desserts and Mixes	Ice Cream, Ice Milk, and Sherbet	0.3
Grain Products and Pastas	Cereal Bars	0.2
Gravies and Sauces	Sauces and Cooking Sauces	0.5
Meat Products	Battered Fried Meat Products	0.3
Milk Products	Dairy-Based Toppings	2.0
Poultry Products	Battered Fried Poultry Products	0.3
Processed Fruits and Fruit Juices	Processed Fruit Filling Preparations	0.5
Processed Vegetables and Vegetable Juices	Battered Fried Vegetable Products	0.3
Snack Foods	Potato Stick Type Products	0.5
Other	Fat-Soluble Colors ^c	0.0003 to 2.9 (in final food)
	Fat-Soluble Flavors ^d	
	Fat-Soluble Nutraceutical Substances ^d	

Table 3-1 Summary of the Individual Approved and Proposed Food Uses and Use Levels for Sucrose Fatty Acid Esters in the U.S.

Food Category (21 CFR §170.3) (U.S. FDA, 2021a)	Food Uses	Sucrose Fatty Acid Esters Use Level (%)
<i>Proposed Food Uses^e</i>		
Soft Candy	Chocolate and Chocolate-Containing products	0.3

CFR = Code of Federal Regulations; GRN = Generally Recognized as Safe Notice; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

^a Approved conditions of use based on GRN 514.

^b No food codes for these food uses were available in the NHANES 2017-18 dataset; however, food codes for wafers containing fillings were used as surrogate food codes in line with the previous GRN 514.

^c No food codes were identified for fat-soluble colors in the NHANES 2017-18 dataset; however, food uses and use levels in which β-carotene, lycopene, carmine, turmeric, and turmeric oleoresin are permitted were selected to approximate the consumption of sucrose esters from its proposed use in fat-soluble colors (see Appendix C).

^d No food codes were identified for fat-soluble flavors and fat-soluble nutraceutical substances in the NHANES 2017-18 dataset; however, the use levels for fat-soluble colors was assumed to represent the exposure to all 3 categories (i.e., fat-soluble colors, fat-soluble flavors, and fat-soluble nutraceutical substances).

^e Sucrose fatty acid esters is intended for use in unstandardized products where standards of identity, as established under 21 CFR §130 to 169 (U.S. FDA, 2021b), do not permit its addition in standardized products.

4.0 FOOD SURVEY RESULTS

Estimates for the total daily intakes of SFAE from food uses are provided in Section 4.1. Estimates for the daily intake of SFAE from individual food uses in the U.S. are summarized in Section 4.2 and presented in Tables A-1 to A-7 and B-1 to B-7 of Appendices A and B, respectively.

4.1 Estimated Daily Intake of Sucrose Fatty Acid Esters from All Food Uses in the U.S.

Table 4.1-1 summarizes the estimated total intake of SFAE (mg/person/day) from all food uses (proposed and previously notified as GRAS) in the U.S. population groups. Table 4.1-2 presents this data on a per kilogram body weight basis (mg/kg body weight/day). The percentage of consumers was high among all age groups evaluated in the current intake assessment; more than 99.6% of the population groups consisted of consumers of food products in which SFAE is currently proposed for use (Table 4.1-1). Children (both age groups), male teenagers, and female adults had the greatest proportion of consumers at 100%. The consumer-only estimates are more relevant to risk assessments as they represent exposures in the target population; consequently, only the consumer-only intake results are discussed in detail herein.

Among the total population (ages 2 years and older), the mean and 90th percentile consumer-only intakes of SFAE were determined to be 650 and 1,277 mg/person/day, respectively. Of the individual population groups, male adults were determined to have the greatest mean and 90th percentile consumer-only intakes of SFAE on an absolute basis, at 789 and 1,557 mg/person/day, respectively, while children (ages 2 to 5 years old) had the lowest mean and 90th percentile consumer-only intakes of 336 and 642 mg/person/day, respectively (Table 4.1-1).

Table 4.1-1 Summary of the Estimated Daily Intake of Sucrose Fatty Acid Esters from Approved and Proposed Food Uses in the U.S. by Population Group (2017-2018 NHANES Data)

Population Group	Age Group (Years)	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
Children	2 to 5	336	642	100	470	336	642
Children	6 to 11	548	968	100	681	548	968
Female Teenagers	12 to 19	564	1,126	99.6	448	567	1,126
Male Teenagers	12 to 19	574	1,064	100	444	574	1,064
Female Adults	20 and older	606	1,171	100	2,161	606	1,171
Male Adults	20 and older	786	1,551	99.7	1,973	789	1,557
Total Population	2 and older	649	1,277	99.8	6,177	650	1,277

n = sample size; NHANES = National Health and Nutrition Examination Survey; U.S. = United States.

On a body weight basis, the total population (ages 2 years and older) mean and 90th percentile consumer-only intakes of SFAE were determined to be 9.8 and 20.0 mg/kg body weight/day, respectively. Among the individual population groups, children (ages 2 to 5 years old) were identified as having the highest mean and 90th percentile consumer-only intakes of any population group, of 19.4 and 36.8 mg/kg body weight/day, respectively. Female adults had the lowest mean and 90th percentile consumer-only intakes of 8.2 and 16.2 mg/kg body weight/day, respectively (Table 4.1-2).

Table 4.1-2 Summary of the Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Approved and Proposed Food Uses in the U.S. by Population Group (2017-2018 NHANES Data)

Population Group	Age Group (Years)	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
Children	2 to 5	19.4	36.8	100	462	19.4	36.8
Children	6 to 11	17.0	33.4	100	679	17.0	33.4
Female Teenagers	12 to 19	9.3	17.8	99.6	441	9.4	17.8
Male Teenagers	12 to 19	8.8	18.3	100	441	8.8	18.3
Female Adults	20 and older	8.2	16.2	100	2,143	8.2	16.2
Male Adults	20 and older	8.9	17.6	99.7	1,957	9.0	17.6
Total Population	2 and older	9.8	20.0	99.8	6,123	9.8	20.0

bw = body weight; n = sample size; NHANES = National Health and Nutrition Examination Survey; U.S. = United States.

4.2 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses in the U.S.

The total U.S. population (ages 2 years and older) was identified as being significant consumers of fat-soluble colors, flavors, and nutraceuticals (96 to 100% consumers), raw fruits (45 to 80% consumers), chocolate and chocolate-containing products (40 to 61% consumers), ready-to-eat breakfast cereals (26 to 58% consumers), white rolls (25 to 42% consumers), and white breads (27 to 36% consumers).

In terms of contribution to total mean intake of SFAE, fat-soluble colors, flavors, and nutraceuticals (which contributed 18 to 27% to total mean intakes), white breads (which contributed 10 to 16% to total mean intakes), white rolls (which contributed 9 to 14% to total mean intakes), ice cream, ice milk, and sherbet (which contributed 7 to 16% to total mean intakes), and chocolate and chocolate-containing products (which contributed 6 to 9% to total mean intakes) were the 5 main sources of intake across all population groups. The remaining food categories all individually contributed $\leq 7\%$ to total mean SFAE intakes across all population groups (see Tables A-1 to A-7 and/or B-1 to B-7 for further details).

5.0 SUMMARY AND CONCLUSIONS

Consumption data and information pertaining to the individual proposed food uses of SFAE were used to estimate the *per capita* and consumer-only intakes of SFAE for specific demographic groups and for the total U.S. population. There were a number of assumptions included in the assessment which render exposure estimates that may be considered suitably conservative. For example, it has been assumed in both exposure assessments that all food products within a food category contain SFAE at the maximum specified level of use. In reality, the levels added to specific foods will vary depending on the nature of the food product and it is unlikely that SFAE will have 100% market penetration in all identified food categories.

In summary, on a consumer-only basis, the resulting mean and 90th percentile intakes of SFAE by the total U.S. population (ages 2 years and older) from all proposed food uses, were estimated to be 650 g/person/day (9.8 mg/kg body weight/day) and 1,277 mg/person/day (20.0 mg/kg body weight/day), respectively. Among the individual population groups, the highest mean and 90th percentile consumer-only intakes of SFAE were determined to be 789 mg/person/day (9.0 mg/kg body weight/day) and 1,557 mg/person/day (17.6 mg/kg body weight/day), respectively, as identified among male adults. Children (ages 2 to 5 years old) had the lowest mean and 90th percentile consumer-only intakes of 336 mg/person/day and 642 mg/person/day, respectively. However, when intakes were expressed on a body weight basis, children (ages 2 to 5 years old) had the highest mean and 90th percentile consumer-only intakes of 19.4 and 36.8 mg/kg body weight/day, respectively.

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APPENDIX A

Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Different Population Groups within the U.S. (2017-2018 NHANES Data)

Table A-1 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Children Aged 2 to 5 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
All	100	336	642	100	470	336	642
Approved Food Uses							
<u>Alcoholic Beverages</u>							
Mixed Drinks, Cocktails, and Dessert Drinks	0	0	0	0	0	0	0
<u>Baked Goods and Baking Mixes</u>							
Biscuit Mixes	5.6	19*	na	6.0	29	312*	450*
Cakes	4.3	15	na	8.0	34	182	376*
White Breads	12.1	41	154	27.3	145	148	251
White Rolls	8.5	29	117	25.1	116	114	247
<u>Beverages and Beverage Bases</u>							
Fruit-Flavored Beverages	0.9	3	9	39.8	180	8	15
<u>Breakfast Cereals</u>							
RTE Breakfast Cereals	7.0	24	63	58.4	275	40	74
<u>Chewing Gum</u>							
Chewing Gum	0.1	<1*	na	2.7	9	9*	18*
<u>Confections and Frostings</u>							
Frostings	0.7	2*	na	9.2	29	26*	45*
<u>Dairy Product Analogs</u>							
Coffee Whiteners	0.2	1*	na	2.0	7	32*	63*
<u>Fats and Oils</u>							
Margarine	0.3	1*	na	7.6	26	13*	35*
Fat Emulsions for Bakery Wares	0.6	2*	na	2.0	8	94*	137*
Mayonnaise and Mayonnaise-Type Dressings	1.1	4	18*	11.3	55	32	53*
Salad Dressings	2.1	7	14*	13.3	55	54	147*
<u>Fish Products</u>							
Surimi-Based Fish Products	0	0	0	0	0	0	0
Battered Fried Fish Products	0.4	2*	na	1.4	10	105*	113*
<u>Fresh Fruits and Vegetables</u>							
Raw Fruits	3.0	10	23	79.9	347	13	25
<u>Frozen Dairy Desserts and Mixes</u>							
Ice Cream, Ice Milk, and Sherbet	8.5	29	113	20.0	95	142	281
<u>Grain Products and Pastas</u>							
Cereal Bars	1.8	6	24*	13.5	56	44	86*
<u>Gravies and Sauces</u>							
Sauces and Cooking Sauces	3.9	13	35	15.0	81	88	193
<u>Meat Products</u>							
Battered Fried Meat Products	0.2	1*	na	0.4	1	151*	151*

Table A-1 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Children Aged 2 to 5 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
<u>Milk Products</u>							
Dairy-Based Toppings	1.0	3*	na	3.2	6	108*	129*
<u>Poultry Products</u>							
Battered Fried Poultry Products	1.9	6*	na	5.3	29	120*	217*
<u>Processed Fruits and Fruit Juices</u>							
Processed Fruit Filling Preparations	0	0	0	0	0	0	0
<u>Processed Vegetables and Vegetable Juices</u>							
Battered Fried Vegetable Products	0.1	<1*	na	0.9	3	40*	96*
<u>Snack Foods</u>							
Potato Stick Type Products	0.1	<1*	na	0.6	6	83*	142*
<u>Other</u>							
Fat-Soluble Colors, Flavors, and Nutraceutical Substances	26.6	89	233	99.7	466	90	234
<i>Proposed Food Uses</i>							
<u>Soft Candy</u>							
Chocolate and Chocolate-Containing Products	8.9	30	106	47.7	210	63	151

n = sample size; na = not available; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

* Indicates an intake estimate that may not be statistically reliable, as the sample size does not meet the minimum reporting requirements (mean n<30; 90th percentile n<80).

Table A-2 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Children Aged 6 to 11 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
All	100	548	968	100	681	548	968
Approved Food Uses							
<u>Alcoholic Beverages</u>							
Mixed Drinks, Cocktails, and Dessert Drinks	<0.1	<1*	na	0.1	1	10*	10*
<u>Baked Goods and Baking Mixes</u>							
Biscuit Mixes	4.1	23	na	6.3	46	357	575*
Cakes	5.7	32	na	9.2	68	341	648*
White Breads	13.1	72	268	36.4	244	197	352
White Rolls	10.5	58	174	36.3	221	159	307
<u>Beverages and Beverage Bases</u>							
Fruit-Flavored Beverages	0.7	4	12	41.0	306	10	21
<u>Breakfast Cereals</u>							
RTE Breakfast Cereals	6.4	35	95	56.9	404	62	116
<u>Chewing Gum</u>							
Chewing Gum	0.1	1*	na	3.5	26	19*	47*
<u>Confections and Frostings</u>							
Frostings	0.5	3	na	9.2	55	31	68*
<u>Dairy Product Analogs</u>							
Coffee Whiteners	0.1	1*	na	2.2	8	28*	86*
<u>Fats and Oils</u>							
Margarine	0.4	2	na	7.8	45	27	47*
Fat Emulsions for Bakery Wares	0.5	3*	na	3.2	16	86*	146*
Mayonnaise and Mayonnaise-Type Dressings	1.2	7	35	17.4	123	38	70
Salad Dressings	3.1	17	74	20.6	121	84	147
<u>Fish Products</u>							
Surimi-Based Fish Products	0	0	0	0	0	0	0
Battered Fried Fish Products	0.3	2*	na	1.3	16	142*	314*
<u>Fresh Fruits and Vegetables</u>							
Raw Fruits	1.5	8	20	66.5	424	13	25
<u>Frozen Dairy Desserts and Mixes</u>							
Ice Cream, Ice Milk, and Sherbet	12.5	69	225	29.9	189	230	432
<u>Grain Products and Pastas</u>							
Cereal Bars	0.9	5	24*	11.9	62	40	80*
<u>Gravies and Sauces</u>							
Sauces and Cooking Sauces	4.5	25	85	20.0	157	125	300
<u>Meat Products</u>							
Battered Fried Meat Products	0.3	2*	na	0.5	3	356*	438*

Table A-2 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Children Aged 6 to 11 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
<u>Milk Products</u>							
Dairy-Based Toppings	0.7	4*	na	3.2	11	119*	181*
<u>Poultry Products</u>							
Battered Fried Poultry Products	2.3	13	na	7.0	46	182	285*
<u>Processed Fruits and Fruit Juices</u>							
Processed Fruit Filling Preparations	0	0	0	0	0	0	0
<u>Processed Vegetables and Vegetable Juices</u>							
Battered Fried Vegetable Products	0.1	<1*	na	0.7	5	61*	126*
<u>Snack Foods</u>							
Potato Stick Type Products	0.2	1*	na	1.0	7	102*	165*
<u>Other</u>							
Fat-Soluble Colors, Flavors, and Nutraceutical Substances	20.6	113	309	99.3	677	114	309
<i>Proposed Food Uses</i>							
<u>Soft Candy</u>							
Chocolate and Chocolate-Containing Products	9.3	51	143	60.8	371	84	182

n = sample size; na = not available; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

* Indicates an intake estimate that may not be statistically reliable, as the sample size does not meet the minimum reporting requirements (mean n<30; 90th percentile n<80).

Table A-3 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Female Teenagers Aged 12 to 19 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
All	100	564	1,126	99.6	448	567	1,126
Approved Food Uses							
<u>Alcoholic Beverages</u>							
Mixed Drinks, Cocktails, and Dessert Drinks	0.4	2*	na	0.8	2	256*	259*
<u>Baked Goods and Baking Mixes</u>							
Biscuit Mixes	6.0	34	na	7.9	30	431	958*
Cakes	5.2	30	na	9.5	43	311	776*
White Breads	10.8	61	231	29.4	126	207	396
White Rolls	10.2	57	213	32.8	131	175	287
<u>Beverages and Beverage Bases</u>							
Fruit-Flavored Beverages	0.6	3	10	29.0	148	11	18
<u>Breakfast Cereals</u>							
RTE Breakfast Cereals	4.9	28	96	36.9	155	75	154
<u>Chewing Gum</u>							
Chewing Gum	0.1	<1*	na	2.4	16	20*	27*
<u>Confections and Frostings</u>							
Frostings	0.4	2	na	7.2	32	29	54*
<u>Dairy Product Analogs</u>							
Coffee Whiteners	1.2	7*	na	5.0	24	141*	305*
<u>Fats and Oils</u>							
Margarine	0.4	2*	na	6.7	18	30*	47*
Fat Emulsions for Bakery Wares	<0.1	<1*	na	0.4	1	40*	40*
Mayonnaise and Mayonnaise-Type Dressings	1.6	9	35	18.8	87	49	70
Salad Dressings	5.3	30	115	25.5	96	118	294
<u>Fish Products</u>							
Surimi-Based Fish Products	0	0	0	0	0	0	0
Battered Fried Fish Products	0.3	2*	na	1.3	6	122*	165*
<u>Fresh Fruits and Vegetables</u>							
Raw Fruits	1.0	6	17	53.7	210	11	26
<u>Frozen Dairy Desserts and Mixes</u>							
Ice Cream, Ice Milk, and Sherbet	15.7	89	360	28.9	109	308	473
<u>Grain Products and Pastas</u>							
Cereal Bars	1.0	6	24*	13.8	47	42	78*
<u>Gravies and Sauces</u>							
Sauces and Cooking Sauces	5.2	29	80	18.7	87	156	439
<u>Meat Products</u>							
Battered Fried Meat Products	0.1	<1*	na	0.2	1	182*	182*

Table A-3 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Female Teenagers Aged 12 to 19 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
<u>Milk Products</u>							
Dairy-Based Toppings	0.8	5*	na	5.1	9	91*	200*
<u>Poultry Products</u>							
Battered Fried Poultry Products	3.2	18	na	5.6	32	320	425*
<u>Processed Fruits and Fruit Juices</u>							
Processed Fruit Filling Preparations	0	0	0	0	0	0	0
<u>Processed Vegetables and Vegetable Juices</u>							
Battered Fried Vegetable Products	0.1	<1*	na	0.3	3	109*	117*
<u>Snack Foods</u>							
Potato Stick Type Products	0.2	1*	na	1.0	10	87*	158*
<u>Other</u>							
Fat-Soluble Colors, Flavors, and Nutraceutical Substances	18.4	104	271	96.1	434	108	276
<i>Proposed Food Uses</i>							
<u>Soft Candy</u>							
Chocolate and Chocolate-Containing Products	7.0	40	118	46.3	187	86	177

n = sample size; na = not available; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

* Indicates an intake estimate that may not be statistically reliable, as the sample size does not meet the minimum reporting requirements (mean n<30; 90th percentile n<80).

Table A-4 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Male Teenagers Aged 12 to 19 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
All	100	574	1,064	100	444	574	1,064
Approved Food Uses							
<u>Alcoholic Beverages</u>							
Mixed Drinks, Cocktails, and Dessert Drinks	0.5	3*	na	0.7	2	423*	360*
<u>Baked Goods and Baking Mixes</u>							
Biscuit Mixes	2.5	14*	na	3.2	16	448*	858*
Cakes	4.3	25	na	5.3	31	467	662*
White Breads	15.9	91	308	32.5	149	281	488
White Rolls	13.8	79	267	36.8	152	216	465
<u>Beverages and Beverage Bases</u>							
Fruit-Flavored Beverages	0.7	4	14	30.1	123	13	23
<u>Breakfast Cereals</u>							
RTE Breakfast Cereals	6.1	35	116	40.5	177	86	159
<u>Chewing Gum</u>							
Chewing Gum	0.1	1*	na	4.8	19	12*	20*
<u>Confections and Frostings</u>							
Frostings	0.4	2*	na	4.8	22	45*	73*
<u>Dairy Product Analogs</u>							
Coffee Whiteners	1.5	9*	na	4.0	17	217*	406*
<u>Fats and Oils</u>							
Margarine	0.1	1*	na	3.7	12	23*	35*
Fat Emulsions for Bakery Wares	<0.1	<1*	na	0.4	1	20*	20*
Mayonnaise and Mayonnaise-Type Dressings	2.4	14	70	25.5	96	55	75
Salad Dressings	2.7	15	37*	12.6	58	121	303*
<u>Fish Products</u>							
Surimi-Based Fish Products	0	0	0	0	0	0	0
Battered Fried Fish Products	0.9	5*	na	2.6	15	194*	516*
<u>Fresh Fruits and Vegetables</u>							
Raw Fruits	1.0	5	16	44.9	192	12	24
<u>Frozen Dairy Desserts and Mixes</u>							
Ice Cream, Ice Milk, and Sherbet	8.2	47	188	17.8	84	265	459
<u>Grain Products and Pastas</u>							
Cereal Bars	0.7	4	na	8.2	33	48	89*
<u>Gravies and Sauces</u>							
Sauces and Cooking Sauces	5.9	34	87	21.6	97	158	402
<u>Meat Products</u>							
Battered Fried Meat Products	0.1	<1*	na	0.1	1	201*	201*

Table A-4 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Male Teenagers Aged 12 to 19 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
<u>Milk Products</u>							
Dairy-Based Toppings	0.2	1*	na	0.6	4	194*	200*
<u>Poultry Products</u>							
Battered Fried Poultry Products	2.0	11*	na	3.4	24	336*	643*
<u>Processed Fruits and Fruit Juices</u>							
Processed Fruit Filling Preparations	<0.1	<1*	na	0.3	1	3*	3*
<u>Processed Vegetables and Vegetable Juices</u>							
Battered Fried Vegetable Products	0.4	2*	na	2.8	9	79*	151*
<u>Snack Foods</u>							
Potato Stick Type Products	0.4	2*	na	1.5	8	144*	167*
<u>Other</u>							
Fat-Soluble Colors, Flavors, and Nutraceutical Substances	21.6	124	343	97.5	431	127	352
<i>Proposed Food Uses</i>							
<u>Soft Candy</u>							
Chocolate and Chocolate-Containing Products	7.6	44	121	40.3	189	108	243

n = sample size; na = not available; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

* Indicates an intake estimate that may not be statistically reliable, as the sample size does not meet the minimum reporting requirements (mean n<30; 90th percentile n<80).

Table A-5 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Female Adults Aged 20 Years and Older within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
All	100	606	1,171	100	2,161	606	1,171
Approved Food Uses							
<u>Alcoholic Beverages</u>							
Mixed Drinks, Cocktails, and Dessert Drinks	5.3	32	na	7.2	121	447	675
<u>Baked Goods and Baking Mixes</u>							
Biscuit Mixes	4.5	27	na	6.1	145	440	1,100
Cakes	5.1	31	7	10.2	218	302	603
White Breads	10.4	63	209	30.6	656	206	373
White Rolls	8.6	52	149	27.5	570	190	377
<u>Beverages and Beverage Bases</u>							
Fruit-Flavored Beverages	0.4	3	8	17.3	421	15	28
<u>Breakfast Cereals</u>							
RTE Breakfast Cereals	3.1	19	70	26.2	524	72	134
<u>Chewing Gum</u>							
Chewing Gum	0.1	1	na	4.9	81	11	20
<u>Confections and Frostings</u>							
Frostings	0.3	2	na	4.9	91	35	56
<u>Dairy Product Analogs</u>							
Coffee Whiteners	6.2	38	104	26.9	606	140	300
<u>Fats and Oils</u>							
Margarine	0.6	4	3	10.4	205	34	72
Fat Emulsions for Bakery Wares	0.3	2	na	1.5	36	118	234*
Mayonnaise and Mayonnaise-Type Dressings	1.5	9	35	21.7	491	43	75
Salad Dressings	5.5	33	115	33.6	637	99	208
<u>Fish Products</u>							
Surimi-Based Fish Products	<0.1	<1*	na	<0.1	1	585*	585*
Battered Fried Fish Products	1.5	9	na	4.4	125	203	387
<u>Fresh Fruits and Vegetables</u>							
Raw Fruits	1.2	7	20	59.7	1,300	12	25
<u>Frozen Dairy Desserts and Mixes</u>							
Ice Cream, Ice Milk, and Sherbet	7.2	43	180	19.2	379	226	469
<u>Grain Products and Pastas</u>							
Cereal Bars	0.6	4	na	8.2	136	46	80
<u>Gravies and Sauces</u>							
Sauces and Cooking Sauces	7.0	43	148	25.3	509	168	381
<u>Meat Products</u>							
Battered Fried Meat Products	0.2	1*	na	0.5	9	218*	325*

Table A-5 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Female Adults Aged 20 Years and Older within the U.S. (2017-2018 NHANES Data)

Food	% Contribution to Total Mean Intake	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
<u>Milk Products</u>							
Dairy-Based Toppings	0.7	4	na	3	46	141	200*
<u>Poultry Products</u>							
Battered Fried Poultry Products	1.6	10	na	4.6	152	209	390
<u>Processed Fruits and Fruit Juices</u>							
Processed Fruit Filling Preparations	0	0	0	0	0	0	0
<u>Processed Vegetables and Vegetable Juices</u>							
Battered Fried Vegetable Products	0.6	4	na	4.3	74	90	135*
<u>Snack Foods</u>							
Potato Stick Type Products	0.1	<1*	na	0.3	6	113*	231*
<u>Other</u>							
Fat-Soluble Colors, Flavors, and Nutraceutical Substances	21.6	131	330	98.2	2,117	133	333
<i>Proposed Food Uses</i>							
<u>Soft Candy</u>							
Chocolate and Chocolate-Containing Products	5.9	36	103	42.4	815	84	185

n = sample size; na = not available; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

* Indicates an intake estimate that may not be statistically reliable, as the sample size does not meet the minimum reporting requirements (mean n<30; 90th percentile n<80).

Table A-6 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Male Adults Aged 20 Years and Older within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
All	100	786	1,551	99.7	1,973	789	1,557
Approved Food Uses							
<u>Alcoholic Beverages</u>							
Mixed Drinks, Cocktails, and Dessert Drinks	4.7	37	na	6.2	96	595	1,500
<u>Baked Goods and Baking Mixes</u>							
Biscuit Mixes	5.2	41	na	7.8	189	524	900
Cakes	3.9	30	na	7.8	166	391	804
White Breads	9.6	76	264	32.8	640	230	446
White Rolls	13.1	103	287	42.1	746	244	480
<u>Beverages and Beverage Bases</u>							
Fruit-Flavored Beverages	0.4	3	10	17.5	366	16	36
<u>Breakfast Cereals</u>							
RTE Breakfast Cereals	2.9	23	90	25.9	506	88	170
<u>Chewing Gum</u>							
Chewing Gum	0.1	<1	na	2.4	48	19	30*
<u>Confections and Frostings</u>							
Frostings	0.3	2	na	5.1	72	45	90*
<u>Dairy Product Analogs</u>							
Coffee Whiteners	3.5	27	75	19.5	437	140	350
<u>Fats and Oils</u>							
Margarine	0.4	3	na	6.8	193	43	93
Fat Emulsions for Bakery Wares	0.4	3*	na	1.7	24	195*	328*
Mayonnaise and Mayonnaise-Type Dressings	1.9	15	70	28.1	537	52	75
Salad Dressings	5.0	39	147	27.4	442	143	294
<u>Fish Products</u>							
Surimi-Based Fish Products	0	0	0	0	0	0	0
Battered Fried Fish Products	1.4	11	na	3.7	81	302	681
<u>Fresh Fruits and Vegetables</u>							
Raw Fruits	0.9	7	19	49.8	1,025	14	27
<u>Frozen Dairy Desserts and Mixes</u>							
Ice Cream, Ice Milk, and Sherbet	7.3	58	210	20.3	375	283	527
<u>Grain Products and Pastas</u>							
Cereal Bars	0.5	4	na	7.4	100	49	75
<u>Gravies and Sauces</u>							
Sauces and Cooking Sauces	6.8	54	180	30.4	516	176	338
<u>Meat Products</u>							
Battered Fried Meat Products	0.2	1*	na	0.5	10	288*	395*

Table A-6 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Male Adults Aged 20 Years and Older within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
<u>Milk Products</u>							
Dairy-Based Toppings	0.6	4*	na	1.3	23	343*	829*
<u>Poultry Products</u>							
Battered Fried Poultry Products	2.3	18	na	5.1	154	363	585
<u>Processed Fruits and Fruit Juices</u>							
Processed Fruit Filling Preparations	0	0	0	0	0	0	0
<u>Processed Vegetables and Vegetable Juices</u>							
Battered Fried Vegetable Products	0.5	4	na	3.3	53	120	210*
<u>Snack Foods</u>							
Potato Stick Type Products	0.1	1*	na	0.2	9	306*	553*
<u>Other</u>							
Fat-Soluble Colors, Flavors, and Nutraceutical Substances	22.6	178	464	98.5	1,939	181	474
<i>Proposed Food Uses</i>							
<u>Soft Candy</u>							
Chocolate and Chocolate-Containing Products	5.6	44	139	39.8	696	111	236

n = sample size; na = not available; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

* Indicates an intake estimate that may not be statistically reliable, as the sample size does not meet the minimum reporting requirements (mean n<30; 90th percentile n<80).

Table A-7 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by the U.S. Population Aged 2 Years and Older (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
All	100	649	1,277	99.8	6,177	650	1,277
Approved Food Uses							
<u>Alcoholic Beverages</u>							
Mixed Drinks, Cocktails, and Dessert Drinks	4.1	27	na	5.2	222	509	1,305
<u>Baked Goods and Baking Mixes</u>							
Biscuit Mixes	4.8	31	na	6.7	455	463	900
Cakes	4.6	30	na	8.8	560	335	666
White Breads	10.6	69	236	31.7	1,960	216	396
White Rolls	11.0	72	241	34.2	1,936	209	413
<u>Beverages and Beverage Bases</u>							
Fruit-Flavored Beverages	0.4	3	10	21.7	1,544	13	26
<u>Breakfast Cereals</u>							
RTE Breakfast Cereals	3.6	23	82	31.5	2,041	74	137
<u>Chewing Gum</u>							
Chewing Gum	0.1	1	na	3.6	199	14	30
<u>Confections and Frostings</u>							
Frostings	0.3	2	na	5.6	301	37	75
<u>Dairy Product Analogs</u>							
Coffee Whiteners	4.0	26	75	18.6	1,099	139	312
<u>Fats and Oils</u>							
Margarine	0.4	3	na	8.2	499	35	70
Fat Emulsions for Bakery Wares	0.3	2	na	1.6	86	138	330
Mayonnaise and Mayonnaise-Type Dressings	1.7	11	35	23.2	1,389	48	75
Salad Dressings	4.9	32	110	27.7	1,409	114	257
<u>Fish Products</u>							
Surimi-Based Fish Products	<0.1	<1*	na	<0.1	1	585*	585*
Battered Fried Fish Products	1.3	8	na	3.5	253	235	510
<u>Fresh Fruits and Vegetables</u>							
Raw Fruits	1.1	7	20	56.5	3,498	13	25
<u>Frozen Dairy Desserts and Mixes</u>							
Ice Cream, Ice Milk, and Sherbet	8.1	52	188	20.9	1,231	250	480
<u>Grain Products and Pastas</u>							
Cereal Bars	0.6	4	na	8.8	434	46	80
<u>Gravies and Sauces</u>							
Sauces and Cooking Sauces	6.5	42	150	25.6	1,447	165	344
<u>Meat Products</u>							
Battered Fried Meat Products	0.2	1*	na	0.5	25	252*	402*

Table A-7 Estimated Daily Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by the U.S. Population Aged 2 Years and Older (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
<u>Milk Products</u>							
Dairy-Based Toppings	0.6	4	na	2.4	99	172	200
<u>Poultry Products</u>							
Battered Fried Poultry Products	2.1	13	na	5.0	437	270	458
<u>Processed Fruits and Fruit Juices</u>							
Processed Fruit Filling Preparations	<0.1	<1*	na	<0.1	1	3*	3*
<u>Processed Vegetables and Vegetable Juices</u>							
Battered Fried Vegetable Products	0.5	3	na	3.2	147	100	180
<u>Snack Foods</u>							
Potato Stick Type Products	0.1	1	na	0.4	46	141	285*
<u>Other</u>							
Fat-Soluble Colors, Flavors, and Nutraceutical Substances	22.0	143	371	98.3	6,064	145	376
<i>Proposed Food Uses</i>							
<u>Soft Candy</u>							
Chocolate and Chocolate-Containing Products	6.2	40	120	43.2	2,468	93	213

n = sample size; na = not available; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

* Indicates an intake estimate that may not be statistically reliable, as the sample size does not meet the minimum reporting requirements (mean n<30; 90th percentile n<80).

APPENDIX B

Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Different Population Groups within the U.S. (2017-2018 NHANES Data)

Table B-1 Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Children Aged 2 to 5 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
All	100	19.4	36.8	100	462	19.4	36.8
Approved Food Uses							
<u>Alcoholic Beverages</u>							
Mixed Drinks, Cocktails, and Dessert Drinks	0	0	0	0	0	0	0
<u>Baked Goods and Baking Mixes</u>							
Biscuit Mixes	6.0	1.2*	na	6.1	29	19.3*	32.5*
Cakes	4.2	0.8	na	8.1	33	10.2	16.5*
White Breads	12.0	2.3	8.4	27.3	141	8.5	17.5
White Rolls	8.0	1.6	6.0	25.3	115	6.2	12.4
<u>Beverages and Beverage Bases</u>							
Fruit-Flavored Beverages	1.0	0.2	0.6	40.1	177	0.5	0.9
<u>Breakfast Cereals</u>							
RTE Breakfast Cereals	7.3	1.4	3.9	58.3	271	2.4	4.5
<u>Chewing Gum</u>							
Chewing Gum	0.1	<0.1*	na	2.8	9	0.4*	0.6*
<u>Confections and Frostings</u>							
Frostings	0.7	0.1*	na	9.3	29	1.5*	2.7*
<u>Dairy Product Analogs</u>							
Coffee Whiteners	0.2	<0.1*	na	2.0	7	2.1*	3.8*
<u>Fats and Oils</u>							
Margarine	0.3	<0.1*	na	7.8	26	0.6*	1.2*
Fat Emulsions for Bakery Wares	0.5	0.1*	na	2.0	8	5.0*	7.0*
Mayonnaise and Mayonnaise-Type Dressings	1.0	0.2	0.8*	11.5	55	1.7	3.2*
Salad Dressings	2.1	0.4	1.1*	13.5	55	2.9	6.5*
<u>Fish Products</u>							
Surimi-Based Fish Products	0	0	0	0	0	0	0
Battered Fried Fish Products	0.5	0.1*	na	1.5	10	6.5*	8.6*
<u>Fresh Fruits and Vegetables</u>							
Raw Fruits	3.1	0.6	1.3	79.6	339	0.8	1.4
<u>Frozen Dairy Desserts and Mixes</u>							
Ice Cream, Ice Milk, and Sherbet	8.6	1.7	6.6	20.3	95	8.2	15.6
<u>Grain Products and Pastas</u>							
Cereal Bars	1.7	0.3	1.6*	13.7	56	2.4	3.7*
<u>Gravies and Sauces</u>							
Sauces and Cooking Sauces	3.9	0.7	1.9	15.0	80	5.0	11.5
<u>Meat Products</u>							
Battered Fried Meat Products	0.2	<0.1*	na	0.4	1	10.1*	10.1*

Table B-1 Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Children Aged 2 to 5 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
<u>Milk Products</u>							
Dairy-Based Toppings	1.0	0.2*	na	3.3	6	6.2*	6.8*
<u>Poultry Products</u>							
Battered Fried Poultry Products	1.9	0.4*	na	5.1	28	7.4*	11.8*
<u>Processed Fruits and Fruit Juices</u>							
Processed Fruit Filling Preparations	0	0	0	0	0	0	0
<u>Processed Vegetables and Vegetable Juices</u>							
Battered Fried Vegetable Products	0.1	<0.1*	na	0.9	3	1.9*	4.6*
<u>Snack Foods</u>							
Potato Stick Type Products	0.1	<0.1*	na	0.6	6	4.2*	5.4*
<u>Other</u>							
Fat-Soluble Colors, Flavors, and Nutraceutical Substances	26.5	5.2	13.6	99.7	458	5.2	13.8
<i>Proposed Food Uses</i>							
<u>Soft Candy</u>							
Chocolate and Chocolate-Containing Products	9.0	1.7	6.1	47.5	206	3.7	9.4

bw = body weight; n = sample size; na = not available; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

* Indicates an intake estimate that may not be statistically reliable, as the sample size does not meet the minimum reporting requirements (mean n<30; 90th percentile n<80).

Table B-2 Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Children Aged 6 to 11 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
All	100	17.0	33.4	100	679	17.0	33.4
Approved Food Uses							
<u>Alcoholic Beverages</u>							
Mixed Drinks, Cocktails, and Dessert Drinks	<0.1	<0.1*	na	0.1	1	0.2*	0.2*
<u>Baked Goods and Baking Mixes</u>							
Biscuit Mixes	4.0	0.7	na	6.3	46	10.9	23.3*
Cakes	5.7	1.0	na	9.3	68	10.5	18.7*
White Breads	12.7	2.2	7.7	36.4	244	5.9	10.2
White Rolls	10.2	1.7	5.5	36.3	220	4.8	10.0
<u>Beverages and Beverage Bases</u>							
Fruit-Flavored Beverages	0.7	0.1	0.4	41.0	305	0.3	0.6
<u>Breakfast Cereals</u>							
RTE Breakfast Cereals	6.5	1.1	3.0	56.9	403	1.9	3.8
<u>Chewing Gum</u>							
Chewing Gum	0.1	<0.1*	na	3.5	26	0.7*	2.1*
<u>Confections and Frostings</u>							
Frostings	0.5	0.1	na	9.2	55	1.0	1.8*
<u>Dairy Product Analogs</u>							
Coffee Whiteners	0.1	<0.1*	na	2.3	8	0.8*	2.0*
<u>Fats and Oils</u>							
Margarine	0.3	0.1	na	7.8	45	0.7	1.3*
Fat Emulsions for Bakery Wares	0.4	0.1*	na	3.2	15	2.3*	3.4*
Mayonnaise and Mayonnaise-Type Dressings	1.1	0.2	0.9	17.5	123	1.1	1.7
Salad Dressings	3.0	0.5	1.7	20.6	121	2.5	4.8
<u>Fish Products</u>							
Surimi-Based Fish Products	0	0	0	0	0	0	0
Battered Fried Fish Products	0.4	0.1*	na	1.3	16	4.7*	9.6*
<u>Fresh Fruits and Vegetables</u>							
Raw Fruits	1.6	0.3	0.6	66.5	423	0.4	0.8
<u>Frozen Dairy Desserts and Mixes</u>							
Ice Cream, Ice Milk, and Sherbet	12.6	2.1	7.8	29.9	189	7.2	13.6
<u>Grain Products and Pastas</u>							
Cereal Bars	0.9	0.2	0.7*	11.9	62	1.3	2.5*
<u>Gravies and Sauces</u>							
Sauces and Cooking Sauces	4.3	0.7	2.5	20.0	157	3.7	8.9
<u>Meat Products</u>							
Battered Fried Meat Products	0.4	0.1*	na	0.5	3	16.0*	19.9*

Table B-2 Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Children Aged 6 to 11 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
<u>Milk Products</u>							
Dairy-Based Toppings	0.7	0.1*	na	3.2	11	3.9*	5.7*
<u>Poultry Products</u>							
Battered Fried Poultry Products	2.4	0.4	na	7.0	46	5.9	8.2*
<u>Processed Fruits and Fruit Juices</u>							
Processed Fruit Filling Preparations	0	0	0	0	0	0	0
<u>Processed Vegetables and Vegetable Juices</u>							
Battered Fried Vegetable Products	0.1	<0.1*	na	0.7	5	1.7*	3.6*
<u>Snack Foods</u>							
Potato Stick Type Products	0.2	<0.1*	na	1.0	7	3.2*	4.8*
<u>Other</u>							
Fat-Soluble Colors, Flavors, and Nutraceutical Substances	21.5	3.7	9.6	99.3	675	3.7	9.6
<i>Proposed Food Uses</i>							
<u>Soft Candy</u>							
Chocolate and Chocolate-Containing Products	9.1	1.6	4.5	60.8	371	2.6	5.8

bw = body weight; n = sample size; na = not available; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

* Indicates an intake estimate that may not be statistically reliable, as the sample size does not meet the minimum reporting requirements (mean n<30; 90th percentile n<80).

Table B-3 Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Female Teenagers Aged 12 to 19 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
All	100	9.3	17.8	99.6	441	9.4	17.8
Approved Food Uses							
<u>Alcoholic Beverages</u>							
Mixed Drinks, Cocktails, and Dessert Drinks	0.3	<0.1*	na	0.8	2	3.8*	3.9*
<u>Baked Goods and Baking Mixes</u>							
Biscuit Mixes	5.5	0.5	na	8.0	30	6.4	13.1*
Cakes	5.4	0.5	na	9.6	43	5.2	14.0*
White Breads	10.7	1.0	3.6	29.6	124	3.4	7.1
White Rolls	10.2	0.9	3.4	33.2	130	2.9	4.8
<u>Beverages and Beverage Bases</u>							
Fruit-Flavored Beverages	0.5	0.1	0.2	29.2	146	0.2	0.3
<u>Breakfast Cereals</u>							
RTE Breakfast Cereals	4.9	0.5	1.5	36.5	152	1.3	2.5
<u>Chewing Gum</u>							
Chewing Gum	0.1	<0.1*	na	2.4	16	0.3*	0.6*
<u>Confections and Frostings</u>							
Frostings	0.4	<0.1	na	7.3	32	0.5	1.1*
<u>Dairy Product Analogs</u>							
Coffee Whiteners	1.1	0.1*	na	4.8	23	2.2*	3.9*
<u>Fats and Oils</u>							
Margarine	0.3	<0.1*	na	6.7	17	0.5*	0.8*
Fat Emulsions for Bakery Wares	<0.1	<0.1*	na	0.4	1	0.8*	0.8*
Mayonnaise and Mayonnaise-Type Dressings	1.6	0.1	0.6	18.6	84	0.8	1.2
Salad Dressings	5.5	0.5	2.0	25.9	96	2.0	5.1
<u>Fish Products</u>							
Surimi-Based Fish Products	0	0	0	0	0	0	0
Battered Fried Fish Products	0.2	<0.1*	na	1.3	6	1.6*	2.2*
<u>Fresh Fruits and Vegetables</u>							
Raw Fruits	1.1	0.1	0.3	54.2	208	0.2	0.4
<u>Frozen Dairy Desserts and Mixes</u>							
Ice Cream, Ice Milk, and Sherbet	15.6	1.5	6.0	29.0	107	5.0	8.5
<u>Grain Products and Pastas</u>							
Cereal Bars	1.1	0.1	0.4*	14.0	47	0.7	1.3*
<u>Gravies and Sauces</u>							
Sauces and Cooking Sauces	5.1	0.5	1.3	18.9	87	2.5	7.9
<u>Meat Products</u>							
Battered Fried Meat Products	0.1	<0.1*	na	0.2	1	3.1*	3.1*

Table B-3 Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Female Teenagers Aged 12 to 19 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
<u>Milk Products</u>							
Dairy-Based Toppings	0.9	0.1*	na	5.2	9	1.6*	3.1*
<u>Poultry Products</u>							
Battered Fried Poultry Products	3.1	0.3	na	5.4	31	5.4	6.2*
<u>Processed Fruits and Fruit Juices</u>							
Processed Fruit Filling Preparations	0	0	0	0	0	0	0
<u>Processed Vegetables and Vegetable Juices</u>							
Battered Fried Vegetable Products	<0.1	<0.1*	na	0.3	3	1.2*	1.4*
<u>Snack Foods</u>							
Potato Stick Type Products	0.1	<0.1*	na	1.0	10	1.1*	2.2*
<u>Other</u>							
Fat-Soluble Colors, Flavors, and Nutraceutical Substances	18.5	1.7	4.4	96.1	427	1.8	4.5
<i>Proposed Food Uses</i>							
<u>Soft Candy</u>							
Chocolate and Chocolate-Containing Products	7.4	0.7	2.0	46.5	185	1.5	3.3

bw = body weight; n = sample size; na = not available; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

* Indicates an intake estimate that may not be statistically reliable, as the sample size does not meet the minimum reporting requirements (mean n<30; 90th percentile n<80).

Table B-4 Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Male Teenagers Aged 12 to 19 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
All	100	8.8	18.3	100	441	8.8	18.3
Approved Food Uses							
<u>Alcoholic Beverages</u>							
Mixed Drinks, Cocktails, and Dessert Drinks	0.4	<0.1*	na	0.7	2	5.3*	4.4*
<u>Baked Goods and Baking Mixes</u>							
Biscuit Mixes	2.6	0.2*	na	3.2	16	7.1*	16.2*
Cakes	5.6	0.5	na	5.4	31	9.2	17.8*
White Breads	15.5	1.4	4.6	32.8	149	4.2	9.2
White Rolls	12.9	1.1	3.9	36.9	151	3.1	6.3
<u>Beverages and Beverage Bases</u>							
Fruit-Flavored Beverages	0.8	0.1	0.3	30.1	122	0.2	0.5
<u>Breakfast Cereals</u>							
RTE Breakfast Cereals	6.2	0.5	1.8	40.5	176	1.4	2.2
<u>Chewing Gum</u>							
Chewing Gum	0.1	<0.1*	na	4.8	19	0.2*	0.3*
<u>Confections and Frostings</u>							
Frostings	0.5	<0.1*	na	4.8	22	0.8*	1.7*
<u>Dairy Product Analogs</u>							
Coffee Whiteners	1.4	0.1*	na	4.1	17	3.0*	5.4*
<u>Fats and Oils</u>							
Margarine	0.1	<0.1*	na	3.5	11	0.4*	0.5*
Fat Emulsions for Bakery Wares	<0.1	<0.1*	na	0.4	1	0.3*	0.3*
Mayonnaise and Mayonnaise-Type Dressings	2.5	0.2	0.8	25.2	94	0.9	1.5
Salad Dressings	2.7	0.2	0.4*	12.7	58	1.9	4.8*
<u>Fish Products</u>							
Surimi-Based Fish Products	0	0	0	0	0	0	0
Battered Fried Fish Products	1.0	0.1*	na	2.6	15	3.4*	10.2*
<u>Fresh Fruits and Vegetables</u>							
Raw Fruits	1.0	0.1	0.3	44.9	191	0.2	0.4
<u>Frozen Dairy Desserts and Mixes</u>							
Ice Cream, Ice Milk, and Sherbet	7.8	0.7	2.9	17.6	83	3.9	7.2
<u>Grain Products and Pastas</u>							
Cereal Bars	0.7	0.1	na	8.3	33	0.7	1.7*
<u>Gravies and Sauces</u>							
Sauces and Cooking Sauces	5.8	0.5	1.4	21.8	97	2.4	5.7
<u>Meat Products</u>							
Battered Fried Meat Products	0.1	<0.1*	na	0.1	1	3.1*	3.1*

Table B-4 Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Male Teenagers Aged 12 to 19 Years within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
<u>Milk Products</u>							
Dairy-Based Toppings	0.2	<0.1*	na	0.6	4	3.4*	3.7*
<u>Poultry Products</u>							
Battered Fried Poultry Products	1.9	0.2*	na	3.2	23	5.2*	8.7*
<u>Processed Fruits and Fruit Juices</u>							
Processed Fruit Filling Preparations	<0.1	<0.1*	na	0.3	1	<0.1*	<0.1*
<u>Processed Vegetables and Vegetable Juices</u>							
Battered Fried Vegetable Products	0.5	<0.1*	na	2.8	9	1.7*	3.3*
<u>Snack Foods</u>							
Potato Stick Type Products	0.5	<0.1*	na	1.5	8	2.9*	3.4*
<u>Other</u>							
Fat-Soluble Colors, Flavors, and Nutraceutical Substances	21.4	1.9	4.8	97.5	428	1.9	4.8
<i>Proposed Food Uses</i>							
<u>Soft Candy</u>							
Chocolate and Chocolate-Containing Products	7.7	0.7	1.9	40.2	188	1.7	5.0

bw = body weight; n = sample size; na = not available; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

* Indicates an intake estimate that may not be statistically reliable, as the sample size does not meet the minimum reporting requirements (mean n<30; 90th percentile n<80).

Table B-5 Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Female Adults Aged 20 Years and Older within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
All	100	8.2	16.2	100	2,143	8.2	16.2
Approved Food Uses							
<u>Alcoholic Beverages</u>							
Mixed Drinks, Cocktails, and Dessert Drinks	5.0	0.4	na	7.2	120	5.6	9.3
<u>Baked Goods and Baking Mixes</u>							
Biscuit Mixes	4.3	0.4	na	6.2	144	5.7	12.2
Cakes	5.2	0.4	0.1	10.3	217	4.2	8.1
White Breads	10.2	0.8	2.8	30.3	645	2.8	5.0
White Rolls	8.4	0.7	2.2	27.4	563	2.5	5.3
<u>Beverages and Beverage Bases</u>							
Fruit-Flavored Beverages	0.4	<0.1	0.1	17.3	419	0.2	0.4
<u>Breakfast Cereals</u>							
RTE Breakfast Cereals	3.2	0.3	0.9	26.2	518	1.0	2.0
<u>Chewing Gum</u>							
Chewing Gum	0.1	<0.1	na	5.0	81	0.1	0.3
<u>Confections and Frostings</u>							
Frostings	0.3	<0.1	na	4.9	91	0.5	0.8
<u>Dairy Product Analogs</u>							
Coffee Whiteners	6.3	0.5	1.3	26.9	600	1.9	4.0
<u>Fats and Oils</u>							
Margarine	0.6	<0.1	<0.1	10.3	202	0.4	1.0
Fat Emulsions for Bakery Wares	0.3	<0.1	na	1.5	36	1.6	2.7*
Mayonnaise and Mayonnaise-Type Dressings	1.5	0.1	0.5	21.6	484	0.6	1.0
Salad Dressings	5.6	0.5	1.7	33.7	635	1.4	2.9
<u>Fish Products</u>							
Surimi-Based Fish Products	<0.1	<0.1*	na	<0.1	1	9.5*	9.5*
Battered Fried Fish Products	1.4	0.1	na	4.5	125	2.5	5.6
<u>Fresh Fruits and Vegetables</u>							
Raw Fruits	1.2	0.1	0.3	59.6	1,287	0.2	0.4
<u>Frozen Dairy Desserts and Mixes</u>							
Ice Cream, Ice Milk, and Sherbet	7.6	0.6	2.4	19.3	377	3.2	7.6
<u>Grain Products and Pastas</u>							
Cereal Bars	0.7	0.1	na	8.3	136	0.6	1.1
<u>Gravies and Sauces</u>							
Sauces and Cooking Sauces	7.1	0.6	1.9	25.3	504	2.3	5.8
<u>Meat Products</u>							
Battered Fried Meat Products	0.2	<0.1*	na	0.5	9	2.6*	3.7*

Table B-5 Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Female Adults Aged 20 Years and Older within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
<u>Milk Products</u>							
Dairy-Based Toppings	0.7	0.1	na	3.0	46	1.9	3.0*
<u>Poultry Products</u>							
Battered Fried Poultry Products	1.6	0.1	na	4.6	150	2.8	5.2
<u>Processed Fruits and Fruit Juices</u>							
Processed Fruit Filling Preparations	0	0	0	0	0	0	0
<u>Processed Vegetables and Vegetable Juices</u>							
Battered Fried Vegetable Products	0.6	0.1	na	4.4	74	1.2	2.0*
<u>Snack Foods</u>							
Potato Stick Type Products	0.1	<0.1*	na	0.3	6	1.5*	3.0*
<u>Other</u>							
Fat-Soluble Colors, Flavors, and Nutraceutical Substances	21.9	1.8	4.6	98.2	2,100	1.8	4.6
<i>Proposed Food Uses</i>							
<u>Soft Candy</u>							
Chocolate and Chocolate-Containing Products	5.9	0.5	1.4	42.4	809	1.1	2.5

bw = body weight; n = sample size; na = not available; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

* Indicates an intake estimate that may not be statistically reliable, as the sample size does not meet the minimum reporting requirements (mean n<30; 90th percentile n<80).

Table B-6 Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Male Adults Aged 20 Years and Older within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
All	100	8.9	17.6	99.7	1,957	9.0	17.6
Approved Food Uses							
<u>Alcoholic Beverages</u>							
Mixed Drinks, Cocktails, and Dessert Drinks	4.5	0.4	na	6.2	94	6.5	17.0
<u>Baked Goods and Baking Mixes</u>							
Biscuit Mixes	5.3	0.5	na	7.8	187	6.1	10.4
Cakes	4.0	0.4	na	7.8	166	4.6	11.0
White Breads	9.7	0.9	2.8	32.8	634	2.7	5.0
White Rolls	13.2	1.2	3.4	42	739	2.8	5.6
<u>Beverages and Beverage Bases</u>							
Fruit-Flavored Beverages	0.4	<0.1	0.1	17.4	359	0.2	0.4
<u>Breakfast Cereals</u>							
RTE Breakfast Cereals	3.0	0.3	1.0	25.9	502	1.0	1.9
<u>Chewing Gum</u>							
Chewing Gum	0.1	<0.1	na	2.4	48	0.2	0.4*
<u>Confections and Frostings</u>							
Frostings	0.3	<0.1	na	5.1	72	0.5	0.8*
<u>Dairy Product Analogs</u>							
Coffee Whiteners	3.3	0.3	0.8	19.5	435	1.5	4.2
<u>Fats and Oils</u>							
Margarine	0.4	<0.1	na	6.8	191	0.5	1.1
Fat Emulsions for Bakery Wares	0.4	<0.1*	na	1.7	23	2.0*	3.4*
Mayonnaise and Mayonnaise-Type Dressings	1.9	0.2	0.6	28.2	534	0.6	1.0
Salad Dressings	4.9	0.4	1.5	27.5	439	1.6	3.6
<u>Fish Products</u>							
Surimi-Based Fish Products	0	0	0	0	0	0	0
Battered Fried Fish Products	1.3	0.1	na	3.7	81	3.2	7.2
<u>Fresh Fruits and Vegetables</u>							
Raw Fruits	0.9	0.1	0.2	49.9	1,018	0.2	0.3
<u>Frozen Dairy Desserts and Mixes</u>							
Ice Cream, Ice Milk, and Sherbet	7.2	0.6	2.5	20.3	373	3.2	6.5
<u>Grain Products and Pastas</u>							
Cereal Bars	0.5	<0.1	na	7.4	99	0.6	0.9
<u>Gravies and Sauces</u>							
Sauces and Cooking Sauces	6.9	0.6	1.9	30.4	513	2.0	4.4
<u>Meat Products</u>							
Battered Fried Meat Products	0.2	<0.1*	na	0.5	9	3.0*	4.4*

Table B-6 Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by Male Adults Aged 20 Years and Older within the U.S. (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
<u>Milk Products</u>							
Dairy-Based Toppings	0.5	<0.1*	na	1.3	22	3.7*	9.3*
<u>Poultry Products</u>							
Battered Fried Poultry Products	2.3	0.2	na	4.9	150	4.2	6.8
<u>Processed Fruits and Fruit Juices</u>							
Processed Fruit Filling Preparations	0	0	0	0	0	0	0
<u>Processed Vegetables and Vegetable Juices</u>							
Battered Fried Vegetable Products	0.5	<0.1	na	3.3	53	1.4	2.5*
<u>Snack Foods</u>							
Potato Stick Type Products	0.1	<0.1*	na	0.2	9	4.5*	8.6*
<u>Other</u>							
Fat-Soluble Colors, Flavors, and Nutraceutical Substances	22.5	2.0	5.4	98.5	1,924	2.1	5.4
<i>Proposed Food Uses</i>							
<u>Soft Candy</u>							
Chocolate and Chocolate-Containing Products	5.8	0.5	1.5	39.8	690	1.3	3.2

bw = body weight; n = sample size; na = not available; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

* Indicates an intake estimate that may not be statistically reliable, as the sample size does not meet the minimum reporting requirements (mean n<30; 90th percentile n<80).

Table B-7 Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by the U.S. Population Aged 2 Years and Older (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
All	100	9.8	20.0	99.8	6,123	9.8	20.0
Approved Food Uses							
<u>Alcoholic Beverages</u>							
Mixed Drinks, Cocktails, and Dessert Drinks	3.2	0.3	na	5.2	219	6.0	12.9
<u>Baked Goods and Baking Mixes</u>							
Biscuit Mixes	4.8	0.5	na	6.7	452	7.0	13.9
Cakes	4.8	0.5	na	8.9	558	5.3	13.3
White Breads	10.9	1.1	3.5	31.7	1,937	3.4	6.7
White Rolls	10.5	1.0	3.3	34.2	1,918	3.0	6.2
<u>Beverages and Beverage Bases</u>							
Fruit-Flavored Beverages	0.5	0.1	0.2	21.7	1,528	0.2	0.5
<u>Breakfast Cereals</u>							
RTE Breakfast Cereals	4.2	0.4	1.5	31.5	2,022	1.3	2.8
<u>Chewing Gum</u>							
Chewing Gum	0.1	<0.1	na	3.7	199	0.2	0.4
<u>Confections and Frostings</u>							
Frostings	0.4	<0.1	na	5.7	301	0.6	1.5
<u>Dairy Product Analogs</u>							
Coffee Whiteners	3.4	0.3	0.8	18.6	1,090	1.8	4.0
<u>Fats and Oils</u>							
Margarine	0.4	<0.1	na	8.1	492	0.5	1.1
Fat Emulsions for Bakery Wares	0.3	<0.1	na	1.6	84	2.1	3.9
Mayonnaise and Mayonnaise-Type Dressings	1.6	0.2	0.6	23.2	1,374	0.7	1.2
Salad Dressings	4.5	0.4	1.5	27.8	1,404	1.6	3.6
<u>Fish Products</u>							
Surimi-Based Fish Products	<0.1	<0.1*	na	<0.1	1	9.5*	9.5*
Battered Fried Fish Products	1.1	0.1	na	3.5	253	3.0	6.8
<u>Fresh Fruits and Vegetables</u>							
Raw Fruits	1.3	0.1	0.4	56.5	3,466	0.2	0.5
<u>Frozen Dairy Desserts and Mixes</u>							
Ice Cream, Ice Milk, and Sherbet	8.6	0.8	3.2	21	1,224	4.1	8.3
<u>Grain Products and Pastas</u>							
Cereal Bars	0.8	0.1	na	8.8	433	0.8	1.6
<u>Gravies and Sauces</u>							
Sauces and Cooking Sauces	6.2	0.6	1.9	25.7	1,438	2.4	5.4
<u>Meat Products</u>							
Battered Fried Meat Products	0.2	<0.1*	na	0.5	24	4.2*	8.9*

Table B-7 Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Individual Proposed Food Uses by the U.S. Population Aged 2 Years and Older (2017-2018 NHANES Data)

Food Use Category	% Contribution to Total Mean Intake	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
<u>Milk Products</u>							
Dairy-Based Toppings	0.7	0.1	na	2.4	98	2.7	6.0
<u>Poultry Products</u>							
Battered Fried Poultry Products	2.1	0.2	na	4.9	428	4.1	7.2
<u>Processed Fruits and Fruit Juices</u>							
Processed Fruit Filling Preparations	<0.1	<0.1*	na	<0.1	1	<0.1*	<0.1*
<u>Processed Vegetables and Vegetable Juices</u>							
Battered Fried Vegetable Products	0.4	<0.1	na	3.2	147	1.3	2.4
<u>Snack Foods</u>							
Potato Stick Type Products	0.1	<0.1	na	0.4	46	2.6	5.5*
<u>Other</u>							
Fat-Soluble Colors, Flavors, and Nutraceutical Substances	22.3	2.2	5.6	98.3	6,012	2.2	5.6
<i>Proposed Food Uses</i>							
<u>Soft Candy</u>							
Chocolate and Chocolate-Containing Products	6.8	0.7	1.9	43.3	2,449	1.5	3.6

bw = body weight; n = sample size; na = not available; NHANES = National Health and Nutrition Examination Survey; RTE = ready-to-eat; U.S. = United States.

* Indicates an intake estimate that may not be statistically reliable, as the sample size does not meet the minimum reporting requirements (mean n<30; 90th percentile n<80).

APPENDIX C
**Summary of Identified Food Uses and Use Levels for Fat-Soluble Colors,
Flavors, and Nutraceutical Substances**

Table C-1 Summary of the Existing Food Uses and Use Levels for Fat-Soluble Colors, Flavors, and Nutraceutical Substances^a in the U.S.

Food Category (21 CFR 170.3)	Food Uses ^b	<i>beta</i> -Carotene	Lycopene	Carmine	Turmeric
		Typical Concentration in Food	Typical Concentration in Food	Typical Concentration in Food	Typical Concentration in Food
Alcoholic Beverages	Alcoholic Beverages	0.0090%	0.0060%	na	na
Baked Goods and Baking Mixes	Bread Products (Excluding White Breads and White Rolls)	na	na	na	0.0177%
	Cookies	na	na	na	0.117%
	Crackers	0.0060%	na	na	na
	Fruit Cakes/Cones	na	na	2.9%	na
	Fruit-Filled Pies	na	na	na	0.051%
	Wafers	na	0.006%	na	na
	Beverages and Beverage Bases	Carbonated Beverages	0.0090%	0.006%	na
Meal Replacement Beverages		0.0090%	0.006%	na	na
Cheeses	Cream Cheese	na	0.006%	na	0.0159%
	Flavored Processed Cheese	na	0.006%	na	na
Condiments and Relishes	Chutneys, Ketchup, and Salsas	na	0.015%	na	0.0069%
	Pickles/Relishes	na	0.015%	na	0.024%
	Prepared Mustard	na	0.009%	na	1.680%
	Olives	na	na	na	0.120%
Dairy Product Analogs	Non-Dairy Milk	0.003%	na	na	na
	Non-Dairy Toppings	0.003%	na	na	na
Egg Products	Egg Products	na	na	na	0.3600%
Fats and Oils	Butter	0.0030%	na	na	na
	Cooking Oil	0.0030%	na	na	na
	Vegetable Shortening	0.0030%	na	na	na

Table C-1 Summary of the Existing Food Uses and Use Levels for Fat-Soluble Colors, Flavors, and Nutraceutical Substances^a in the U.S.

Food Category (21 CFR 170.3)	Food Uses ^b	<i>beta</i> -Carotene	Lycopene	Carmine	Turmeric
		Typical Concentration in Food	Typical Concentration in Food	Typical Concentration in Food	Typical Concentration in Food
Fish Products	Frozen Fish Meals	na	na	na	0.5700%
	Fish/Crustacean Pastes	na	0.009%	na	na
	Fish Roe	na	0.009%	na	na
	Pre-cooked Crustaceans	na	0.0075%	na	na
	Processed Frozen Fish Products	na	na	na	0.003%
	Smoked Fish	na	0.009%	na	na
Fruit and Water Ices	Edible Ices	na	0.006%	na	na
Grain Products & Pasta	Flavored Rice	na	na	na	0.0279%
Hard Candy	Hard Candy	na	0.009%	0.7800%	na
Jams and Jellies	Jams, Jellies, Marmalades, and Other Similar Fruit Preparations	na	0.009%	na	na
Milk Products	Flavored Milk Products	na	0.0045%	na	na
	Sour Cream	na	na	na	0.9900%
	Yogurt	na	na	na	0.0003%
Nuts and Nut Products	Dry Roasted Seeds & Nuts	na	0.015%	na	0.9000%
Plant Protein Products	Meat and Fish Analogues	na	0.015%	na	na
	Salmon Substitutes ^c	na	0.015%	na	na
Processed Fruits and Fruit Juices	Candied Fruits	na	0.006%	na	na
	Preserves of Red Fruits	na	0.006%	na	na
	Processed Fruits	0.009%	na	na	na
Processed Vegetables	Candied Vegetables	na	0.006%	na	na
	Specialty Vegetables ^c	na	na	na	0.0162%
Seasonings and Flavors	Products other than MSG ^c	na	na	na	30.0%
	Meat Tenderizers ^c	na	na	na	1.00%
	Table Salt ^c	na	na	na	3.90%
Snack Foods	Savory Snacks	na	0.006%	na	na

Table C-1 Summary of the Existing Food Uses and Use Levels for Fat-Soluble Colors, Flavors, and Nutraceutical Substances^a in the U.S.

Food Category (21 CFR 170.3)	Food Uses ^b	<i>beta</i> -Carotene	Lycopene	Carmine	Turmeric
		Typical Concentration in Food	Typical Concentration in Food	Typical Concentration in Food	Typical Concentration in Food
Soft Candy	Chocolate	na	0.009%	na	na
	Soft Candy	na	0.009%	0.300%	na
Soup and Soup Mixes	Bouillon	0.0039%	0.009%	na	0.0135%
	Creamed Soups	0.0039%	0.009%	na	0.1560%

CFR = *Code of Federal Regulations*; GRN = Generally Recognized as Safe Notice; MSG = monosodium glutamate; na = not available; NHANES = National Health and Nutrition Examination Survey; U.S. = United States.

^a Individual existing food uses and use levels of *beta*-carotene, lycopene, carmine, turmeric, and turmeric oleoresin were obtained from the “1977 Survey of Industry on the Use of Food Additives” (NRC, 1979), and based on the table described in GRN 514.

^b The maximum level of *beta*-carotene, lycopene, carmine, and turmeric/turmeric oleoresin in each food use was used to estimate the expected sucrose fatty acid esters’ levels resulting from the combined exposure of fat-soluble colors, flavors, and nutraceutical substances. The value applied for each food use has been **bolded** to emphasize each.

^c No food codes for these food uses were available in the NHANES 2017-18 dataset.

APPENDIX D

Representative Food Codes for Proposed Food Uses of Sucrose Fatty Acid Esters in the U.S. (2017-2018 NHANES Data)

Representative Food Codes for Proposed Food Uses of Sucrose Fatty Acid Esters in the U.S. (2017-2018 NHANES Data)

Alcoholic Beverages

Mixed Drinks, Cocktails, and Dessert Drinks

[SFAE]= 0.2 g/100 g

93201000	Cordial or liqueur
93202000	Cordial or liqueur, coffee flavored
93301000	Cocktail, NFS
93301010	Alexander
93301020	Bacardi cocktail
93301030	Bloody Mary
93301031	Canadian Club and soda
93301032	Cape Cod
93301040	Daiquiri
93301045	Gelatin shot, alcoholic
93301050	Gimlet
93301060	Gin and Tonic
93301070	Grasshopper
93301075	Greyhound
93301080	High ball
93301083	Jagerbomb
93301085	Kamikaze
93301090	Manhattan
93301100	Margarita
93301110	Martini
93301111	Martini, flavored
93301115	Mimosa
93301120	Mint julep
93301125	Mojito
93301130	Old fashioned
93301132	Orange Blossom
93301135	Rob Roy
93301136	Rusty Nail
93301139	Salty Dog
93301140	Screwdriver
93301141	Seabreeze
93301142	Seven and Seven
93301150	Tom Collins
93301160	Whiskey sour
93301170	Whiskey and soda

93301181 Whiskey and water
93301182 Whiskey and cola
93301183 Whiskey and diet cola
93301184 Whiskey and ginger ale
93301190 Rum and cola
93301191 Rum and diet cola
93301200 Pina Colada
93301205 Brandy and cola
93301211 Vodka and soda
93301213 Vodka and lemonade
93301214 Vodka and cola
93301215 Vodka and diet cola
93301216 Vodka and energy drink
93301217 Vodka and water
93301218 Vodka and tonic
93301230 Sloe gin fizz
93301240 Black Russian
93301250 White Russian
93301270 Fruit punch, alcoholic
93301275 Champagne punch
93301280 Singapore Sling
93301290 Stinger
93301310 Mai Tai
93301320 Tequila Sunrise
93301330 Gin Rickey
93301340 Golden Cadillac
93301360 Long Island iced tea
93301370 Fuzzy Navel
93301400 Irish Coffee
93301450 Liqueur with cream
93301500 Frozen daiquiri
93301510 Frozen margarita
93301550 Eggnog, alcoholic
93301600 Gin fizz
93302000 Rum, hot buttered
93302100 Zombie
93402000 Wine, dessert, sweet

Baked Goods and Baking Mixes

Biscuit Mixes

[SFAE]= 1.0 g/100 g

- 52101000 Biscuit, NFS
- 52102040 Biscuit, from refrigerated dough
- 52103000 Biscuit, from fast food / restaurant
- 52104010 Biscuit, home recipe
- 52104040 Biscuit, wheat
- 52104100 Biscuit, cheese
- 52104200 Biscuit with fruit
- 58128000 Biscuit with gravy

Mixed foods containing biscuit mix

Adjusted for biscuit content of approx. 30%

[SFAE] = 0.3 g/100 g

- 27515080 Steak sandwich, plain, on biscuit
- 27520170 Bacon on biscuit
- 27520250 Ham on biscuit
- 27540145 Chicken fillet biscuit, from fast food
- 27560650 Sausage on biscuit
- 27560705 Sausage balls, made with biscuit mix and cheese
- 32202020 Egg, cheese, and ham on biscuit
- 32202050 Egg, cheese, and sausage on biscuit
- 32202060 Egg and sausage on biscuit
- 32202070 Egg, cheese, and bacon on biscuit
- 32202090 Egg and bacon on biscuit
- 32202110 Egg and ham on biscuit
- 32202130 Egg and steak on biscuit
- 32202200 Egg and cheese on biscuit

Cakes

[SFAE]= 0.5 g/100 g

- 53111000 Cake or cupcake, gingerbread
- 53610100 Coffee cake, crumb or quick-bread type
- 53610170 Coffee cake, crumb or quick-bread type, with fruit
- 53610200 Coffee cake, crumb or quick-bread type, cheese-filled
- 51165000 Coffee cake, yeast type
- 53100070 Cake batter, raw, not chocolate
- 53100100 Cake or cupcake, NS as to type
- 53101100 Cake, angel food, without icing or filling
- 53101200 Cake, angel food, with icing or filling
- 53101250 Cake, angel food, with fruit and icing or filling
- 53102100 Cake or cupcake, applesauce, without icing or filling
- 53102200 Cake or cupcake, applesauce, with icing or filling
- 53102600 Cake or cupcake, banana, without icing or filling

53102700 Cake or cupcake, banana, with icing or filling
53103000 Cake, Boston cream pie
53104100 Cake or cupcake, carrot, without icing or filling
53104260 Cake or cupcake, carrot, with icing or filling
53104300 Cake, carrot, diet
53104400 Cake or cupcake, coconut, with icing or filling
53104500 Cheesecake
53104550 Cheesecake with fruit
53106500 Cake, cream, without icing or topping
53109200 Snack cake, not chocolate, with icing or filling
53109220 Snack cake, not chocolate, with icing or filling, reduced fat and calories
53109300 Cake, Dobos Torte
53112100 Ice cream cake
53113000 Cake, jelly roll
53114000 Cake or cupcake, lemon, without icing or filling
53114100 Cake or cupcake, lemon, with icing or filling
53115100 Cake or cupcake, marble, without icing or filling
53115200 Cake or cupcake, marble, with icing or filling
53115310 Cake or cupcake, nut, without icing or filling
53115320 Cake or cupcake, nut, with icing or filling
53115410 Cake or cupcake, oatmeal
53115450 Cake or cupcake, peanut butter
53116000 Cake, pound, without icing or filling
53116020 Cake, pound, with icing or filling
53116350 Cake, pound, Puerto Rican style
53116390 Cake, pound, reduced fat, cholesterol free
53116500 Cake or cupcake, pumpkin, without icing or filling
53116510 Cake or cupcake, pumpkin, with icing or filling
53116550 Cake or cupcake, raisin-nut
53116570 Cake, Ravani
53116600 Cake, rice flour, without icing or filling
53116650 Cake, Quezadilla, El Salvadorian style
53117100 Cake or cupcake, spice, without icing or filling
53117200 Cake or cupcake, spice, with icing or filling
53118100 Cake, sponge, without icing or filling
53118200 Cake, sponge, with icing or filling
53118410 Rum cake, without icing
53118500 Cake, torte
53118550 Cake, tres leche
53119000 Cake, pineapple, upside down
53120270 Cake or cupcake, white, with icing or filling
53120275 Cake or cupcake, white, without icing or filling
53121270 Cake or cupcake, yellow, with icing or filling

- 53121275 Cake or cupcake, yellow, without icing or filling
- 53122070 Cake, shortcake, biscuit type, with whipped cream and fruit
- 53122080 Cake, shortcake, biscuit type, with fruit
- 53123070 Cake, shortcake, sponge type, with whipped cream and fruit
- 53123080 Cake, shortcake, sponge type, with fruit
- 53123500 Cake, shortcake, with whipped topping and fruit, diet
- 53124110 Cake or cupcake, zucchini

White Breads

[SFAE]= 0.55 g/100 g

- 51000100 Bread, NS as to major flour
- 51000110 Bread, NS as to major flour, toasted
- 51101000 Bread, white
- 51101010 Bread, white, toasted
- 51101050 Bread, white, made from home recipe or purchased at a bakery
- 51101060 Bread, white, made from home recipe or purchased at a bakery, toasted
- 51102010 Bread, white with whole wheat swirl
- 51102020 Bread, white with whole wheat swirl, toasted
- 51105010 Bread, Cuban
- 51105040 Bread, Cuban, toasted
- 51106010 Bread, native, water, Puerto Rican style
- 51106020 Bread, native, water, toasted, Puerto Rican style
- 51106200 Bread, lard, Puerto Rican style
- 51106210 Bread, lard, toasted, Puerto Rican style
- 51106300 Bread, caressed, Puerto Rican style
- 51106310 Bread, caressed, toasted, Puerto Rican style
- 51107010 Bread, French or Vienna
- 51107040 Bread, French or Vienna, toasted
- 51109100 Bread, pita
- 51109110 Bread, pita, toasted
- 51109150 Bread, pita with fruit
- 51109200 Bread, pita with fruit, toasted
- 51111010 Bread, cheese
- 51111040 Bread, cheese, toasted
- 51113010 Bread, cinnamon
- 51113100 Bread, cinnamon, toasted
- 51121110 Bread, onion
- 51121120 Bread, onion, toasted
- 51122000 Bread, reduced calorie and/or high fiber, white or NFS
- 51122010 Bread, reduced calorie and/or high fiber, white or NFS, toasted
- 51122100 Bread, reduced calorie and/or high fiber, white or NFS, with fruit and/or nuts
- 51122110 Bread, reduced calorie and/or high fiber, white or NFS, with fruit and/or nuts, toasted
- 51122300 Bread, white, special formula, added fiber

51122310 Bread, white, special formula, added fiber, toasted
51130510 Bread, white, low sodium or no salt
51130520 Bread, white, low sodium or no salt, toasted
51134000 Bread, sweet potato
51134010 Bread, sweet potato, toasted
51135000 Bread, vegetable
51135010 Bread, vegetable, toasted
51167000 Brioche
51804010 Bread, soy
51804020 Bread, soy, toasted
51805010 Bread, sunflower meal

Mixed foods containing white bread

Adjusted for bread content of 11.7 to 63.2%

[SFAE] = 0.064 to 0.35 g/100 g

14640000 Cheese sandwich, NFS
14640002 Cheese sandwich, American cheese, on white bread, no spread
14640008 Cheese sandwich, Cheddar cheese, on white bread, no spread
14640014 Cheese sandwich, reduced fat American cheese, on white bread, no spread
14640020 Cheese sandwich, reduced fat Cheddar cheese, on white bread, no spread
14640026 Cheese sandwich, American cheese, on white bread, with mayonnaise
14640032 Cheese sandwich, Cheddar cheese, on white bread, with mayonnaise
14640038 Cheese sandwich, reduced fat American cheese, on white bread, with mayonnaise
14640044 Cheese sandwich, reduced fat Cheddar cheese, on white bread, with mayonnaise
14640050 Cheese sandwich, American cheese, on white bread, with butter
14640056 Cheese sandwich, Cheddar cheese, on white bread, with butter
14640062 Cheese sandwich, reduced fat American cheese, on white bread, with butter
14640068 Cheese sandwich, reduced fat Cheddar cheese, on white bread, with butter
14640100 Grilled cheese sandwich, NFS
14640105 Grilled cheese sandwich, American cheese, on white bread
14640125 Grilled cheese sandwich, Cheddar cheese, on white bread
14640155 Grilled cheese sandwich, reduced fat American cheese, on white bread
14640185 Grilled cheese sandwich, reduced fat Cheddar cheese, on white bread
27250080 Salmon loaf
27250150 Tuna loaf
27250260 Lobster with bread stuffing, baked
27250450 Shrimp toast, fried
27500050 Sandwich, NFS
27500100 Meat sandwich, NFS
27510000 Beef sandwich, NFS
27510235 Cheeseburger submarine sandwich with lettuce, tomato and spread
27510700 Meatball and spaghetti sauce submarine sandwich
27510910 Corned beef sandwich

27511010 Pastrami sandwich
27513010 Roast beef sandwich
27513020 Roast beef sandwich, with gravy
27513040 Roast beef submarine sandwich, with lettuce, tomato and spread
27513041 Roast beef submarine sandwich, with cheese, lettuce, tomato and spread
27513050 Roast beef sandwich with cheese
27513060 Roast beef sandwich with bacon and cheese sauce
27513070 Roast beef submarine sandwich, on roll, au jus
27515000 Steak submarine sandwich with lettuce and tomato
27515010 Steak sandwich, plain, on roll
27515020 Steak and cheese submarine sandwich, with lettuce and tomato
27515030 Steak and cheese sandwich, plain, on roll
27515040 Steak and cheese submarine sandwich, plain, on roll
27515050 Fajita-style beef sandwich with cheese, on pita bread, with lettuce and tomato
27516010 Gyro sandwich (pita bread, beef, lamb, onion, condiments), with tomato and spread
27517000 Hamburger wrap sandwich, from fast food
27520110 Bacon sandwich, with spread
27520120 Bacon and cheese sandwich, with spread
27520140 Bacon and egg sandwich
27520150 Bacon, lettuce, and tomato sandwich with spread
27520155 Bacon, lettuce, and tomato submarine sandwich, with spread
27520156 Bacon, lettuce, tomato, and cheese submarine sandwich, with spread
27520300 Ham sandwich, with spread
27520310 Ham sandwich with lettuce and spread
27520320 Ham and cheese sandwich, with lettuce and spread
27520340 Ham salad sandwich
27520390 Ham and cheese submarine sandwich, with lettuce, tomato and spread
27520410 Cuban sandwich, with spread
27520420 Midnight sandwich, with spread
27520520 Pork sandwich
27540110 Sliced chicken sandwich, with spread
27540111 Sliced chicken sandwich, with cheese and spread
27540120 Chicken salad or chicken spread sandwich
27540130 Chicken barbecue sandwich
27540146 Chicken fillet sandwich, fried, from fast food
27540147 Chicken fillet sandwich, fried, from fast food, with cheese
27540160 Chicken fillet sandwich, NS as to fried or grilled, from fast food
27540320 Turkey salad or turkey spread sandwich
27550000 Fish sandwich, fried, from fast food
27550100 Fish sandwich, fried, from fast food, with cheese
27550150 Fried seafood sandwich
27550510 Sardine sandwich
27550720 Tuna salad sandwich, on bread

27550730 Tuna salad sandwich, on bread, with cheese
 27560000 Luncheon meat sandwich, NFS, with spread
 27560510 Salami sandwich, with spread
 27564010 Frankfurter or hot dog sandwich, NFS, plain, on white bread
 27564040 Frankfurter or hot dog sandwich, NFS, plain, on whole grain white bread
 27564070 Frankfurter or hot dog sandwich, beef, plain, on white bread
 27564100 Frankfurter or hot dog sandwich, beef, plain, on whole grain white bread
 27564130 Frankfurter or hot dog sandwich, beef and pork, plain, on white bread
 27564160 Frankfurter or hot dog sandwich, beef and pork, plain, on whole grain white bread
 27564190 Frankfurter or hot dog sandwich, meat and poultry, plain, on white bread
 27564220 Frankfurter or hot dog sandwich, meat and poultry, plain, on whole grain white bread
 27564250 Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on white bread
 27564280 Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on whole grain white bread
 27564310 Frankfurter or hot dog sandwich, reduced fat or light, plain, on white bread
 27564340 Frankfurter or hot dog sandwich, reduced fat or light, plain, on whole grain white bread
 27564370 Frankfurter or hot dog sandwich, fat free, plain, on white bread
 27564400 Frankfurter or hot dog sandwich, fat free, plain, on whole grain white bread
 27564450 Frankfurter or hot dog sandwich, with chili, on white bread
 27564480 Frankfurter or hot dog sandwich, with chili, on whole grain white bread
 42301010 Peanut butter sandwich, NFS
 42301015 Peanut butter sandwich, with regular peanut butter, on white bread
 42301115 Peanut butter sandwich, with reduced fat peanut butter, on white bread
 42302015 Peanut butter and jelly sandwich, with regular peanut butter, regular jelly, on white bread
 42302055 Peanut butter and jelly sandwich, with reduced fat peanut butter, regular jelly, on white bread
 42302105 Peanut butter and jelly sandwich, with regular peanut butter, reduced sugar jelly, on white bread
 42302155 Peanut butter and jelly sandwich, with reduced fat peanut butter, reduced sugar jelly, on white bread
 58201000 Jelly sandwich, regular jelly, NFS
 58201005 Jelly sandwich, regular jelly, on white bread
 58201035 Jelly sandwich, reduced sugar jelly, on white bread
 74701000 Tomato sandwich

White Rolls

[SFAE]= 0.48 g/100 g

32202000 Egg, cheese, ham, and bacon on bun
 32202034 Egg, cheese, and sausage on bun
 51000200 Roll, NS as to major flour
 51000300 Roll, hard, NS as to major flour
 51000400 Roll, bran, NS as to type of bran
 51150000 Roll, white, soft
 51153000 Roll, white, hard
 51154010 Roll, white, hot dog bun

51154100 Roll, white, hamburger bun
51154510 Roll, diet
51154550 Roll, egg bread
51154600 Roll, cheese
51155000 Roll, French or Vienna
51156500 Roll, garlic
51157000 Roll, white, hoagie, submarine
51158100 Roll, Mexican, bolillo
51159000 Roll, sour dough

Mixed foods containing white rolls

Adjusted for roll content of 18 to 58.2%

[SFAE] = 0.09 to 0.28 g/100 g

27510130 Beef barbecue submarine sandwich, on bun
27510140 Cheeseburger slider, from fast food
27510155 Cheeseburger, NFS
27510160 Cheeseburger, from fast food, 1 small patty
27510170 Cheeseburger (Burger King)
27510171 Whopper Jr with cheese (Burger King)
27510172 Cheeseburger (McDonalds)
27510190 Cheeseburger, from school cafeteria
27510191 Cheeseburger slider
27510195 Cheeseburger, on white bun, 1 small patty
27510215 Cheeseburger, from fast food, 1 medium patty
27510229 Quarter Pounder (McDonalds)
27510231 Whopper with cheese (Burger King)
27510232 Quarter Pounder with cheese (McDonalds)
27510241 Cheeseburger, on white bun, 1 medium patty
27510245 Cheeseburger, on white bun, 1 large patty
27510254 Double cheeseburger, on white bun, 2 small patties
27510257 Double cheeseburger, on white bun, 2 medium patties
27510261 Cheeseburger, from fast food, 1 large patty
27510262 Double cheeseburger, on white bun, 2 large patties
27510371 Double cheeseburger, from fast food, 2 small patties
27510386 Double cheeseburger (Burger King)
27510387 Double cheeseburger (McDonalds)
27510388 McDouble (McDonalds)
27510389 Big Mac (McDonalds)
27510401 Double cheeseburger, from fast food, 2 medium patties
27510405 Double cheeseburger, from fast food, 2 large patties
27510501 Hamburger slider, from fast food
27510521 Hamburger, NFS
27510531 Hamburger, from fast food, 1 small patty

27510551 Hamburger (Burger King)
27510552 Whopper Jr (Burger King)
27510553 Hamburger (McDonalds)
27510565 Hamburger, from school cafeteria
27510573 Hamburger slider
27510575 Hamburger, on white bun, 1 small patty
27510601 Hamburger, from fast food, 1 medium patty
27510605 Hamburger, from fast food, 1 large patty
27510615 Whopper (Burger King)
27510631 Hamburger, on white bun, 1 medium patty
27510635 Hamburger, on white bun, 1 large patty
27510649 Double hamburger, on white bun, 2 small patties
27510655 Double hamburger, on white bun, 2 medium patties
27510658 Double hamburger, on white bun, 2 large patties
27510661 Double hamburger, from fast food, 2 small patties
27510671 Double hamburger, from fast food, 2 medium patties
27510675 Double hamburger, from fast food, 2 large patties
27510705 Chiliburger, with or without cheese, on bun
27515070 Steak and cheese submarine sandwich, with fried peppers and onions, on roll
27520360 Ham and cheese sandwich, on bun, with lettuce and spread
27520370 Hot ham and cheese sandwich, on bun
27520500 Pork sandwich, on white roll, with onions, dill pickles and barbecue sauce
27520510 Pork barbecue sandwich or Sloppy Joe, on bun
27540175 Chicken fillet sandwich, fried, on white bun
27540176 Chicken fillet sandwich, fried, on white bun; with cheese
27540195 Chicken fillet sandwich, grilled, on white bun
27540196 Chicken fillet sandwich, grilled, on white bun, with cheese
27545100 Turkey or chicken burger, on white bun
27550400 Fish sandwich, fried, on white bun
27550405 Fish sandwich, fried, on white bun, with cheese
27550740 Tuna salad sandwich, on bun
27550745 Tuna salad sandwich, on bun, with cheese
27564000 Frankfurter or hot dog sandwich, NFS, plain, on white bun
27564003 Frankfurter or hot dog sandwich, NFS, plain, on whole grain white bun
27564060 Frankfurter or hot dog sandwich, beef, plain, on white bun
27564063 Frankfurter or hot dog sandwich, beef, plain, on whole grain white bun
27564120 Frankfurter or hot dog sandwich, beef and pork, plain, on white bun
27564123 Frankfurter or hot dog sandwich, beef and pork, plain, on whole grain white bun
27564180 Frankfurter or hot dog sandwich, meat and poultry, plain, on white bun
27564183 Frankfurter or hot dog sandwich, meat and poultry, plain, on whole grain white bun
27564240 Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on white bun
27564243 Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on whole grain white bun
27564300 Frankfurter or hot dog sandwich, reduced fat or light, plain, on white bun

- 27564303 Frankfurter or hot dog sandwich, reduced fat or light, plain, on whole grain white bun
- 27564360 Frankfurter or hot dog sandwich, fat free, plain, on white bun
- 27564363 Frankfurter or hot dog sandwich, fat free, plain, on whole grain white bun
- 27564420 Frankfurter or hot dog sandwich, meatless, plain, on bun
- 27564440 Frankfurter or hot dog sandwich, with chili, on white bun
- 27564443 Frankfurter or hot dog sandwich, with chili, on whole grain white bun
- 27564500 Frankfurter or hot dog sandwich, with meatless chili, on white bun
- 27564503 Frankfurter or hot dog sandwich, with meatless chili, on whole grain white bun
- 27564560 Frankfurter or hot dog sandwich, meatless, on bun, with meatless chili

Beverages and Beverage Bases

Fruit-Flavored Beverages

[SFAE]= 0.005 g/100 g

- 92432000 Fruit juice drink, citrus, carbonated
- 92433000 Fruit juice drink, noncitrus, carbonated
- 92510610 Fruit juice drink
- 92510650 Tamarind drink
- 92510720 Fruit punch, made with fruit juice and soda
- 92510730 Fruit punch, made with soda, fruit juice, and sherbet or ice cream
- 92510955 Lemonade, fruit juice drink
- 92510960 Lemonade, fruit flavored drink
- 92511015 Fruit flavored drink
- 92511250 Fruit juice beverage, 40-50% juice, citrus
- 92512050 Frozen daiquiri mix, from frozen concentrate, reconstituted
- 92512090 Pina Colada, nonalcoholic
- 92512110 Margarita mix, nonalcoholic
- 92530410 Fruit flavored drink, with high vitamin C
- 92530510 Cranberry juice drink, with high vitamin C
- 92530610 Fruit juice drink, with high vitamin C
- 92530950 Vegetable and fruit juice drink, with high vitamin C
- 92531030 Fruit juice drink (Sunny D)
- 92541010 Fruit flavored drink, powdered, reconstituted
- 92542000 Fruit flavored drink, with high vitamin C, powdered, reconstituted
- 92550030 Fruit juice drink, with high vitamin C, light
- 92550035 Fruit juice drink, light
- 92550040 Fruit juice drink, diet
- 92550110 Cranberry juice drink, with high vitamin C, light
- 92550200 Grape juice drink, light
- 92550350 Orange juice beverage, 40-50% juice, light
- 92550360 Apple juice beverage, 40-50% juice, light
- 92550370 Lemonade, fruit juice drink, light
- 92550380 Pomegranate juice beverage, 40-50% juice, light

- 92550400 Vegetable and fruit juice drink, with high vitamin C, diet
- 92550405 Vegetable and fruit juice drink, with high vitamin C, light
- 92550610 Fruit flavored drink, with high vitamin C, diet
- 92550620 Fruit flavored drink, diet
- 92552000 Fruit flavored drink, with high vitamin C, powdered, reconstituted, diet
- 92552010 Fruit flavored drink, powdered, reconstituted, diet
- 92552020 Fruit juice drink, reduced sugar (Sunny D)
- 92552030 Fruit juice drink (Capri Sun)
- 92582100 Fruit juice drink, with high vitamin C, plus added calcium
- 92582110 Fruit juice drink, added calcium (Sunny D)
- 92804000 Shirley Temple
- 95342000 Fruit juice, acai blend

Foods adjusted for being present in dried form

Reconstitution factor of 4 to 10.23

[SFAE] = 0.02 to 0.051 g/100 g

- 92511000 Lemonade, frozen concentrate, not reconstituted
- 92512040 Frozen daiquiri mix, frozen concentrate, not reconstituted
- 92900100 Fruit flavored drink, with high vitamin C, powdered, not reconstituted
- 92900110 Fruit flavored drink, powdered, not reconstituted
- 92900200 Fruit flavored drink, powdered, not reconstituted, diet

Breakfast Cereals

RTE Breakfast Cereals

[SFAE]= 0.2 g/100 g

- 57100100 Cereal, ready-to-eat, NFS
- 57101000 Cereal (Kellogg's All-Bran)
- 57103000 Cereal (Post Alpha-Bits)
- 57103100 Cereal (General Mills Cheerios Apple Cinnamon)
- 57104000 Cereal (Kellogg's Apple Jacks)
- 57106050 Cereal (Post Great Grains Banana Nut Crunch)
- 57106060 Cereal (General Mills Cheerios Banana Nut)
- 57106260 Cereal (General Mills Cheerios Berry Burst)
- 57117000 Cereal (Quaker Cap'n Crunch)
- 57117500 Cereal (Quaker Christmas Crunch)
- 57119000 Cereal (Quaker Cap'n Crunch's Crunchberries)
- 57120000 Cereal (Quaker Cap'n Crunch's Peanut Butter Crunch)
- 57123000 Cereal (General Mills Cheerios)
- 57124030 Cereal (General Mills Chex Chocolate)
- 57124050 Cereal (General Mills Chex Cinnamon)
- 57124100 Cereal (General Mills Cheerios Chocolate)

57124200 Cereal, chocolate flavored, frosted, puffed corn
57124300 Cereal (General Mills Lucky Charms Chocolate)
57125000 Cereal (General Mills Cinnamon Toast Crunch)
57125010 Cereal (General Mills 25% Less Sugar Cinnamon Toast Crunch)
57125900 Cereal (General Mills Honey Nut Clusters)
57126000 Cereal (Kellogg's Cocoa Krispies)
57127000 Cereal (Post Cocoa Pebbles)
57128000 Cereal (General Mills Cocoa Puffs)
57130000 Cereal (General Mills Cookie Crisp)
57132000 Cereal (General Mills Chex Corn)
57134000 Cereal, corn flakes
57135000 Cereal (Kellogg's Corn Flakes)
57137000 Cereal, corn puffs
57139000 Cereal (General Mills Count Chocula)
57143000 Cereal (Kellogg's Cracklin' Oat Bran)
57143500 Cereal (Post Great Grains, Cranberry Almond Crunch)
57148000 Cereal (Kellogg's Crispix)
57151000 Cereal, crispy rice
57206700 Cereal (General Mills Fiber One)
57206710 Cereal (General Mills Fiber One Honey Clusters)
57206715 Cereal (General Mills Fiber One Raisin Bran Clusters)
57207000 Cereal, bran flakes
57208000 Cereal (Kellogg's All-Bran Complete Wheat Flakes)
57209000 Cereal (Post Bran Flakes)
57211000 Cereal (General Mills Frankenberry)
57213000 Cereal (Kellogg's Froot Loops)
57213010 Cereal (Kellogg's Froot Loops Marshmallow)
57213850 Cereal (General Mills Cheerios Frosted)
57214000 Cereal (Kellogg's Frosted Mini-Wheats)
57216000 Cereal, frosted rice
57221700 Cereal, fruit rings
57221810 Cereal (General Mills Cheerios Fruity)
57223000 Cereal (Post Fruity Pebbles)
57224000 Cereal (General Mills Golden Grahams)
57227000 Cereal, granola
57228000 Granola, homemade
57229000 Cereal (Kellogg's Low Fat Granola)
57230000 Cereal (Post Grape-Nuts)
57231200 Cereal (Post Great Grains Raisins, Dates, and Pecans)
57237100 Cereal (Post Honey Bunches of Oats Honey Roasted)
57237200 Cereal (Post Honey Bunches of Oats with Vanilla Bunches)
57237300 Cereal (Post Honey Bunches of Oats with Almonds)
57238000 Cereal (Post Honeycomb)

57240100 Cereal (General Mills Chex Honey Nut)
57241000 Cereal (General Mills Cheerios Honey Nut)
57241200 Cereal (Post Shredded Wheat Honey Nut)
57243000 Cereal (Kellogg's Honey Smacks)
57301500 Cereal (Kashi 7 Whole Grain Puffs)
57301505 Cereal (Kashi Autumn Wheat)
57301510 Cereal (Kashi GOLEAN)
57301511 Cereal (Kashi GOLEAN Crunch)
57301512 Cereal (Kashi GOLEAN Crunch Honey Almond Flax)
57301530 Cereal (Kashi Heart to Heart Honey Toasted Oat)
57303100 Cereal (General Mills Kix)
57303105 Cereal (General Mills Honey Kix)
57303200 Cereal (Kellogg's Krave)
57304100 Cereal (Quaker Life)
57305100 Cereal (General Mills Lucky Charms)
57305150 Cereal, frosted oat cereal with marshmallows
57305160 Cereal (Malt-O-Meal Blueberry Muffin Tops)
57305165 Cereal (Malt-O-Meal Cinnamon Toasters)
57305170 Cereal (Malt-O-Meal Coco-Roos)
57305174 Cereal (Malt-O-Meal Colossal Crunch)
57305175 Cereal (Malt-O-Meal Cocoa Dyno-Bites)
57305180 Cereal (Malt-O-Meal Corn Bursts)
57305210 Cereal (Malt-O-Meal Frosted Flakes)
57305300 Cereal (Malt-O-Meal Fruity Dyno-Bites)
57305400 Cereal (Malt-O-Meal Honey Graham Squares)
57305500 Cereal (Malt-O-Meal Honey Nut Toasty O's)
57305600 Cereal (Malt-O-Meal Marshmallow Mateys)
57306500 Cereal (Malt-O-Meal Golden Puffs)
57306700 Cereal (Malt-O-Meal Toasted Oat Cereal)
57306800 Cereal (Malt-O-Meal Tootie Fruities)
57308190 Cereal, muesli
57308400 Cereal (General Mills Cheerios Multigrain)
57309100 Cereal (Nature Valley Granola)
57316380 Cereal (General Mills Cheerios Oat Cluster Crunch)
57316385 Cereal (General Mills Cheerios Protein)
57316450 Cereal (General Mills Oatmeal Crisp with Almonds)
57316710 Cereal (Quaker Honey Graham Oh's)
57320500 Cereal (Quaker Granola with Oats, Honey, and Raisins)
57321900 Cereal (Nature's Path Organic Flax Plus)
57326000 Cereal (Barbara's Puffins)
57327450 Cereal (Quaker Toasted Oat Bran)
57327500 Cereal (Quaker Oatmeal Squares)
57329000 Cereal, raisin bran

57330000 Cereal (Kellogg's Raisin Bran)
 57330010 Cereal (Kellogg's Raisin Bran Crunch)
 57331000 Cereal (Post Raisin Bran)
 57332100 Cereal (General Mills Raisin Nut Bran)
 57335550 Cereal (General Mills Reese's Puffs)
 57336000 Cereal (General Mills Chex Rice)
 57337000 Cereal, rice flakes
 57339000 Cereal (Kellogg's Rice Krispies)
 57339500 Cereal (Kellogg's Rice Krispies Treats Cereal)
 57340000 Cereal, puffed rice
 57341200 Cereal (Kellogg's Smart Start Strong)
 57341300 Cereal (Kellogg's Smorz)
 57344000 Cereal (Kellogg's Special K)
 57344001 Cereal (Kellogg's Special K Blueberry)
 57344005 Cereal (Kellogg's Special K Chocolatey Delight)
 57344010 Cereal (Kellogg's Special K Red Berries)
 57344015 Cereal (Kellogg's Special K Fruit & Yogurt)
 57344020 Cereal (Kellogg's Special K Vanilla Almond)
 57344025 Cereal (Kellogg's Special K Cinnamon Pecan)
 57347000 Cereal (Kellogg's Corn Pops)
 57348000 Cereal, frosted corn flakes
 57349000 Cereal (Kellogg's Frosted Flakes)
 57355000 Cereal (Post Golden Crisp)
 57401100 Cereal, toasted oat
 57407100 Cereal (General Mills Trix)
 57408100 Cereal (Uncle Sam)
 57411000 Cereal (General Mills Chex Wheat)
 57416000 Cereal, puffed wheat, plain
 57416010 Cereal, puffed wheat, sweetened
 57417000 Cereal (Post Shredded Wheat)
 57418000 Cereal (General Mills Wheaties)

Chewing Gum

Chewing Gum

[SFAE]= 0.5 g/100 g

91800100 Chewing gum, NFS
 91801000 Chewing gum, regular
 91802000 Chewing gum, sugar free

Confections and Frostings

Frostings

[SFAE]= 0.5 g/100 g

91305010 Icing, chocolate

91305020 Icing, white

Mixed foods containing frosting

Adjusted for frosting content of 10 to 20%

[SFAE] = 0.05 to 0.10 g/100 g

- 53239050 Cookie, shortbread, with icing or filling
- 53240010 Cookie, animal, with frosting or icing
- 53244010 Cookie, butter or sugar, with chocolate icing or filling
- 53244020 Cookie, butter or sugar, with icing or filling other than chocolate
- 53520135 Doughnut, cake type, with icing
- 53520140 Doughnut, cake type, chocolate icing
- 53520160 Doughnut, chocolate, with chocolate icing
- 53521130 Doughnut, yeast type, with chocolate icing
- 53521230 Doughnut, custard-filled, with icing

Dairy Product Analogs

Coffee Whiteners

[SFAE]= 0.5 g/100 g

- 12200100 Coffee creamer, NFS
- 12210200 Coffee creamer, liquid
- 12210210 Coffee creamer, liquid, flavored
- 12210260 Coffee creamer, liquid, fat free
- 12210270 Coffee creamer, liquid, fat free, flavored
- 12210280 Coffee creamer, liquid, fat free, sugar free, flavored
- 12210310 Coffee creamer, liquid, sugar free, flavored
- 12210400 Coffee creamer, powder
- 12210420 Coffee creamer, powder, flavored
- 12210430 Coffee creamer, powder, fat free
- 12210440 Coffee creamer, powder, fat free, flavored
- 12210505 Coffee creamer, powder, sugar free, flavored
- 12210520 Coffee creamer, soy, liquid

Fats and Oils

Margarine

[SFAE]= 0.5 g/100 g

- 81102000 Margarine, NFS
- 81102010 Margarine, stick

- 81102020 Margarine, tub
- 81103035 Margarine-oil blend, NFS
- 81103040 Margarine-oil blend, stick
- 81103080 Margarine-oil blend, tub
- 81104010 Margarine-oil blend, tub, light
- 81104020 Margarine-oil blend, stick, light

Fat Emulsions for Bakery Wares

[SFAE]= 1.0 g/100 g

- 53209010 Cookie, sugar wafer, chocolate-covered
- 53210000 Cookie, chocolate wafer
- 53222020 Cookie, cone shell, ice cream type, wafer or cake
- 53242000 Cookie, sugar wafer
- 53247000 Cookie, vanilla wafer
- 53247050 Cookie, vanilla wafer, reduced fat
- 53260500 Cookie, sugar wafer, sugar free

Mayonnaise and Mayonnaise-Type Dressings

[SFAE]= 0.5 g/100 g

- 81302040 Sandwich spread
- 81302050 Tartar sauce
- 83100200 Salad dressing, NFS, for sandwiches
- 83107000 Mayonnaise, regular
- 83108000 Vegan mayonnaise
- 83110000 Mayonnaise-type salad dressing
- 83204000 Mayonnaise, light
- 83204030 Mayonnaise, reduced fat, with olive oil
- 83204050 Mayonnaise-type salad dressing, light
- 83300700 Mayonnaise, fat free

Salad Dressings

[SFAE]= 0.5 g/100 g

- 83100100 Salad dressing, NFS, for salads
- 83101000 Blue or roquefort cheese dressing
- 83101600 Bacon and tomato dressing
- 83102000 Caesar dressing
- 83103000 Coleslaw dressing
- 83104000 French or Catalina dressing
- 83105500 Honey mustard dressing
- 83106000 Italian dressing, made with vinegar and oil
- 83109000 Russian dressing
- 83112000 Avocado dressing

83112500 Creamy dressing
83112950 Poppy seed dressing
83112990 Sesame dressing
83114000 Thousand Island dressing
83115000 Yogurt dressing
83200100 Salad dressing, light, NFS
83201000 Blue or roquefort cheese dressing, light
83201400 Coleslaw dressing, light
83202020 French or Catalina dressing, light
83203000 Caesar dressing, light
83204500 Honey mustard dressing, light
83205450 Italian dressing, light
83206000 Russian dressing, light
83206500 Sesame dressing, light
83207000 Thousand Island dressing, light
83208500 Korean dressing or marinade
83210100 Creamy dressing, light
83300100 Blue or roquefort cheese dressing, fat free
83300200 Caesar dressing, fat free
83300300 Creamy dressing, fat free
83300400 French or Catalina dressing, fat free
83300500 Honey mustard dressing, fat free
83300600 Italian dressing, fat free
83300800 Russian dressing, fat free
83300900 Salad dressing, fat free, NFS
83301000 Thousand Island dressing, fat free

Fish Products

Surimi-Based Fish Products

[SFAE]= 1.0 g/100 g

27150250 Fish moochim
27450130 Crab salad made with imitation crab

Battered Fried Fish Products

[SFAE]= 0.3 g/100 g

26100140 Fish, NS as to type, coated, fried, made with oil
26100141 Fish, NS as to type, coated, fried, made with butter
26100142 Fish, NS as to type, coated, fried, made with margarine
26100143 Fish, NS as to type, coated, fried, no added fat
26100144 Fish, NS as to type, coated, fried, made with cooking spray
26103140 Barracuda, coated, fried

26105140 Carp, coated, fried
26107140 Catfish, coated, fried, made with oil
26107141 Catfish, coated, fried, made with butter
26107142 Catfish, coated, fried, made with margarine
26107143 Catfish, coated, fried, no added fat
26107144 Catfish, coated, fried, made with cooking spray
26109140 Cod, coated, fried, made with oil
26109141 Cod, coated, fried, made with butter
26109142 Cod, coated, fried, made with margarine
26109143 Cod, coated, fried, no added fat
26109144 Cod, coated, fried, made with cooking spray
26111140 Croaker, coated, fried
26115140 Flounder, coated, fried, made with oil
26115141 Flounder, coated, fried, made with butter
26115142 Flounder, coated, fried, made with margarine
26115143 Flounder, coated, fried, no added fat
26115144 Flounder, coated, fried, made with cooking spray
26117140 Haddock, coated, fried
26118040 Halibut, coated, fried, made with oil
26118041 Halibut, coated, fried, made with butter
26118042 Halibut, coated, fried, made with margarine
26118043 Halibut, coated, fried, no added fat
26118044 Halibut, coated, fried, made with cooking spray
26119140 Herring, coated, fried
26121140 Mackerel, coated, fried
26123140 Mullet, coated, fried
26125140 Ocean perch, coated, fried
26127140 Perch, coated, fried, made with oil
26127141 Perch, coated, fried, made with butter
26127142 Perch, coated, fried, made with margarine
26127143 Perch, coated, fried, no added fat
26127144 Perch, coated, fried, made with cooking spray
26129140 Pike, coated, fried
26131140 Pompano, coated, fried
26133140 Porgy, coated, fried
26135140 Ray, coated, fried
26137140 Salmon, coated, fried, made with oil
26137141 Salmon, coated, fried, made with butter
26137142 Salmon, coated, fried, made with margarine
26137143 Salmon, coated, fried, no added fat
26137144 Salmon, coated, fried, made with cooking spray
26141140 Sea bass, coated, fried
26143140 Shark, coated, fried

26147140 Sturgeon, coated, fried
 26149140 Swordfish, coated, fried
 26151140 Trout, coated, fried, made with oil
 26151141 Trout, coated, fried, made with butter
 26151142 Trout, coated, fried, made with margarine
 26151143 Trout, coated, fried, no added fat
 26151144 Trout, coated, fried, made with cooking spray
 26153140 Tuna, fresh, coated, fried
 26157140 Whiting, coated, fried, made with oil
 26157141 Whiting, coated, fried, made with butter
 26157142 Whiting, coated, fried, made with margarine
 26157143 Whiting, coated, fried, no added fat
 26157144 Whiting, coated, fried, made with cooking spray
 26158030 Tilapia, coated, fried, made with oil
 26158031 Tilapia, coated, fried, made with butter
 26158032 Tilapia, coated, fried, made with margarine
 26158033 Tilapia, coated, fried, no added fat
 26158034 Tilapia, coated, fried, made with cooking spray
 26213140 Squid, coated, fried
 26303140 Clams, coated, fried
 26307140 Crab, soft shell, coated, fried
 26309140 Crayfish, coated, fried
 26311140 Lobster, coated, fried
 26315140 Oysters, coated, fried
 26317140 Scallops, coated, fried
 26319140 Shrimp, coated, fried, made with oil
 26319141 Shrimp, coated, fried, made with butter
 26319142 Shrimp, coated, fried, made with margarine
 26319143 Shrimp, coated, fried, no added fat
 26319144 Shrimp, coated, fried, made with cooking spray
 26319145 Shrimp, coated, fried, from fast food / restaurant
 27450150 Fish, tofu, and vegetables, tempura
 99992610 Fish fillet, fried as ingredient in sandwiches

Fresh Fruits and Vegetables

Raw Fruits

[SFAE]= 0.0083 g/100 g

61100600 Clementine, raw
 61101010 Grapefruit, raw
 61110010 Kumquat, raw
 61113010 Lemon, raw
 61116010 Lime, raw

61119010 Orange, raw
 61125010 Tangerine, raw
 62110100 Date
 63100100 Fruit, NFS
 63101000 Apple, raw
 63103010 Apricot, raw
 63105010 Avocado, raw
 63107010 Banana, raw
 63109010 Cantaloupe, raw
 63109700 Starfruit, raw
 63110010 Cassaba melon, raw
 63115010 Cherries, raw
 63119010 Fig, raw
 63123000 Grapes, raw
 63125010 Guava, raw
 63126500 Kiwi fruit, raw
 63127010 Honeydew melon, raw
 63129010 Mango, raw
 63131010 Nectarine, raw
 63133010 Papaya, raw
 63134010 Passion fruit, raw
 63135010 Peach, raw
 63137010 Pear, raw
 63137050 Pear, Asian, raw
 63139010 Persimmon, raw
 63141010 Pineapple, raw
 63143010 Plum, raw
 63145010 Pomegranate, raw
 63149010 Watermelon, raw
 63200100 Berries, NFS
 63201010 Blackberries, raw
 63203010 Blueberries, raw
 63207010 Cranberries, raw
 63219000 Raspberries, raw
 63223020 Strawberries, raw
 63311000 Fruit salad, fresh or raw, excluding citrus fruits, no dressing
 63311050 Fruit salad, fresh or raw, including citrus fruits, no dressing

Frozen Dairy Desserts and Mixes

Ice Cream, Ice Milk, and Sherbet

[SFAE]= 0.3 g/100 g

13110000 Ice cream, NFS

13110100 Ice cream, vanilla
13110102 Ice cream, vanilla, with additional ingredients
13110110 Ice cream, chocolate
13110112 Ice cream, chocolate, with additional ingredients
13110200 Ice cream, soft serve, vanilla
13110210 Ice cream, soft serve, chocolate
13120050 Ice cream bar, vanilla
13120100 Ice cream bar, vanilla, chocolate coated
13120110 Ice cream candy bar
13120140 Ice cream bar, chocolate
13120500 Ice cream sandwich, vanilla
13120510 Ice cream sandwich, chocolate
13120550 Ice cream cookie sandwich
13120730 Ice cream cone, scooped, vanilla
13120735 Ice cream cone, scooped, vanilla, waffle cone
13120740 Ice cream cone, NFS
13120770 Ice cream cone, scooped, chocolate
13120775 Ice cream cone, scooped, chocolate, waffle cone
13120782 Ice cream cone, soft serve, vanilla
13120784 Ice cream cone, soft serve, chocolate
13120786 Ice cream cone, soft serve, vanilla, waffle cone
13120788 Ice cream cone, soft serve, chocolate, waffle cone
13120790 Ice cream cone, vanilla, prepackaged
13120792 Ice cream cone, chocolate, prepackaged
13120800 Ice cream soda, flavors other than chocolate
13120810 Ice cream soda, chocolate
13121000 Ice cream sundae, NFS
13121100 Ice cream sundae, fruit topping
13121120 Banana split
13121300 Ice cream sundae, hot fudge topping
13121400 Ice cream sundae, caramel topping
13126000 Ice cream, fried
13130100 Light ice cream, NFS
13130300 Light ice cream, vanilla
13130310 Light ice cream, chocolate
13130700 Soft serve, blended with candy or cookies, from fast food
13135000 Light ice cream sandwich, vanilla
13135010 Light ice cream sandwich, chocolate
13140000 Light ice cream bar, vanilla
13140100 Light ice cream bar, vanilla, chocolate coated
13140115 Light ice cream bar, chocolate
13140700 Creamsicle
13140710 Creamsicle, light

13140900 Fudgesicle
13142100 Light ice cream cone, vanilla, prepackaged
13142110 Light ice cream cone, chocolate, prepackaged
13150000 Sherbet, all flavors
13161600 Fudgesicle, light

Grain Products

Cereal Bars

[SFAE]= 0.2 g/100 g

53710400 Cereal or granola bar (General Mills Fiber One Chewy Bar)
53710500 Cereal or granola bar (Kellogg's Nutri-Grain Cereal Bar)
53710502 Cereal or granola bar (Kellogg's Nutri-Grain Yogurt Bar)
53710504 Cereal or granola bar (Kellogg's Nutri-Grain Fruit and Nut Bar)
53710600 Milk 'n Cereal bar
53710700 Cereal or granola bar (Kellogg's Special K bar)
53710800 Cereal or granola bar (Kashi Chewy)
53710802 Cereal or granola bar (Kashi Crunchy)
53710810 Cereal or granola bar (KIND Fruit and Nut Bar)
53710900 Cereal or granola bar (General Mills Nature Valley Chewy Trail Mix)
53710902 Cereal or granola bar, with yogurt coating (General Mills Nature Valley Chewy Granola Bar)
53710904 Cereal or granola bar (General Mills Nature Valley Sweet and Salty Granola Bar)
53710906 Cereal or granola bar (General Mills Nature Valley Crunchy Granola Bar)
53711000 Cereal or granola bar (Quaker Chewy Granola Bar)
53711002 Cereal or granola bar (Quaker Chewy 90 Calorie Granola Bar)
53711004 Cereal or granola bar (Quaker Chewy 25% Less Sugar Granola Bar)
53711006 Cereal or granola bar (Quaker Chewy Dipps Granola Bar)
53711100 Cereal or granola bar (Quaker Granola Bites)
53712000 Snack bar, oatmeal
53712100 Cereal or Granola bar, NFS
53712200 Cereal or granola bar, lowfat, NFS
53712210 Cereal or granola bar, nonfat
53713000 Cereal or granola bar, reduced sugar, NFS
53713010 Cereal or granola bar, fruit and nut
53713100 Cereal or granola bar, peanuts , oats, sugar, wheat germ
53714230 Cereal or granola bar, oats, nuts, coated with non-chocolate coating
53714250 Cereal or granola bar, coated with non-chocolate coating
53714300 Cereal or granola bar, high fiber, coated with non-chocolate yogurt coating
53714400 Cereal or granola bar, with rice cereal
53714500 Breakfast bar, NFS
53714510 Breakfast bar, date, with yogurt coating
53714520 Breakfast bar, cereal crust with fruit filling, lowfat

Gravies and Sauces

Sauces and Cooking Sauces

[SFAE]= 0.5 g/100 g

13411000 White sauce or gravy
14650100 Cheese sauce
14650160 Alfredo sauce
14650165 Alfredo sauce with added vegetables
14650170 Alfredo sauce with meat
14650175 Alfredo sauce with meat and added vegetables
14650180 Alfredo sauce with poultry
14650185 Alfredo sauce with poultry and added vegetables
14650190 Alfredo sauce with seafood
14650195 Alfredo sauce with seafood and added vegetables
27120110 Sausage with tomato-based sauce
27120120 Sausage gravy
27141030 Spaghetti sauce with poultry
27141035 Spaghetti sauce with poultry and added vegetables
27150140 Seafood sauce
27150151 Spaghetti sauce with seafood
27150155 Spaghetti sauce with seafood and added vegetables
27150210 Fish sauce
28500000 Gravy, poultry
28500040 Gravy, beef
28501010 Gravy, beef, fat free
28501110 Gravy, poultry, fat free
28520000 Gravy, made with soy sauce
28520010 Gravy, NFS
28520100 Oyster sauce
28522000 Mole sauce
41205100 Black bean sauce
41420100 Miso sauce
41420250 Hoisin sauce
41420300 Soy sauce
41420350 Soy sauce, reduced sodium
41420400 Teriyaki sauce
41420410 Teriyaki sauce, reduced sodium
41420450 Worcestershire sauce
41811950 Swiss steak, with gravy, meatless
42204050 Peanut sauce
42204100 Gravy, vegetarian
74404010 Spaghetti sauce
74404020 Spaghetti sauce with added vegetables
74404050 Spaghetti sauce, reduced sodium

74404060 Spaghetti sauce, fat free
 74404090 Vodka sauce with tomatoes and cream
 74406010 Barbecue sauce
 74406060 Buffalo sauce
 74406100 Steak sauce
 81301000 Garlic sauce
 81301020 Lemon-butter sauce
 81302010 Hollandaise sauce
 81302070 Pesto sauce
 81312100 Curry sauce
 89901010 Cream sauce, for use with vegetables
 89901020 Cheese sauce, for use with vegetables
 89901030 Gravy, for use with vegetables
 89901040 Soy based sauce, for use with vegetables
 89901050 Tomato sauce, for use with vegetables

Mixed foods containing sauces

Adjusted for sauce content of 10 to 80%

[SFAE] = 0.05 to 0.40 g/100 g

21304200 Beef, shortribs, barbecued, with sauce, NS as to fat eaten
 21304210 Beef, shortribs, barbecued, with sauce, lean and fat eaten
 21304220 Beef, shortribs, barbecued, with sauce, lean only eaten
 22701030 Pork, spareribs, barbecued, with sauce, NS as to fat eaten
 22701040 Pork, spareribs, barbecued, with sauce, lean and fat eaten
 22701050 Pork, spareribs, barbecued, with sauce, lean only eaten
 27111000 Beef with tomato-based sauce
 27111300 Beef stew, no potatoes, tomato-based sauce, Mexican style
 27111310 Beef stew, no potatoes, tomato-based sauce, with chili peppers, Mexican style
 27112000 Beef with gravy
 27112010 Salisbury steak with gravy
 27113000 Beef with cream or white sauce
 27113200 Creamed chipped or dried beef
 27113300 Swedish meatballs with cream or white sauce
 27114000 Beef with mushroom sauce
 27115000 Beef with soy-based sauce
 27115100 Steak teriyaki
 27116200 Beef with barbecue sauce
 27116300 Beef with sweet and sour sauce
 27118180 Beef stew, meat with gravy, no potatoes, Puerto Rican style
 27120020 Ham or pork with gravy
 27120030 Ham or pork with barbecue sauce
 27120060 Sweet and sour pork
 27120090 Ham or pork with mushroom sauce

27120100 Ham or pork with tomato-based sauce
27120130 Pork stew, no potatoes, tomato-based sauce, Mexican style
27120150 Pork or ham with soy-based sauce
27120250 Frankfurters or hot dogs with tomato-based sauce
27130010 Lamb or mutton with gravy
27135010 Veal with gravy
27135030 Veal with cream sauce
27135040 Veal with butter sauce
27136050 Venison or deer with tomato-based sauce
27141050 Stewed chicken with tomato-based sauce, Mexican style
27142000 Chicken with gravy
27142200 Turkey with gravy
27143000 Chicken or turkey with cream sauce
27144000 Chicken or turkey with mushroom sauce
27145000 Chicken or turkey with teriyaki
27146011 Chicken, shredded or pulled, with barbecue sauce
27146100 Sweet and sour chicken or turkey
27146160 Chicken with mole sauce
27146200 Chicken or turkey with cheese sauce
27150010 Fish with cream or white sauce, not tuna or lobster
27150070 Lobster with butter sauce
27150120 Tuna with cream or white sauce
27150160 Shrimp with lobster sauce
27150170 Sweet and sour shrimp
27150310 Fish with tomato-based sauce
27150330 Mussels with tomato-based sauce
27150350 Sardines with tomato-based sauce
27150410 Shrimp teriyaki
27150510 Scallops with cheese sauce
27151040 Crabs in tomato-based sauce, Puerto Rican style
27151050 Shrimp in garlic sauce, Puerto Rican style
27160010 Meat with barbecue sauce, NS as to type of meat
27160100 Meatballs, NS as to type of meat, with sauce
27162010 Meat with tomato-based sauce
27162040 Spaghetti sauce with meat
27162060 Spaghetti sauce with meat and added vegetables
27163010 Meat with gravy, NS as to type of meat,
27211200 Beef stew with potatoes, gravy
27212200 Beef and noodles with gravy
27213200 Beef and rice with gravy
27220510 Ham or pork and potatoes with gravy
27231000 Lamb or mutton and potatoes with gravy
27233000 Lamb or mutton and noodles with gravy

- 27241010 Chicken or turkey and potatoes with gravy
- 27242200 Chicken or turkey and noodles with gravy
- 27250122 Shrimp and noodles with gravy
- 27260050 Meatballs, with breading, NS as to type of meat, with gravy

Meat Products

Battered Fried Meat Products

[SFAE]= 0.3 g/100 g

- 21104110 Beef steak, battered, fried, NS as to fat eaten
- 21104120 Beef steak, battered, fried, lean and fat eaten
- 21104130 Beef steak, battered, fried, lean only eaten
- 22101400 Pork chop, battered, fried, NS as to fat eaten
- 22101410 Pork chop, battered, fried, lean and fat eaten
- 22101420 Pork chop, battered, fried, lean only eaten
- 22201050 Pork steak or cutlet, battered, fried, NS as to fat eaten
- 22201060 Pork steak or cutlet, battered, fried, lean and fat eaten
- 22201070 Pork steak or cutlet, battered, fried, lean only eaten
- 22210450 Pork, tenderloin, battered, fried
- 99995000 Breading or batter as ingredient in food

Milk Products

Dairy-Based Toppings

[SFAE]= 2.0 g/100 g

- 12140000 Cream, whipped

Poultry Products

Battered Fried Poultry Products

[SFAE]= 0.3 g/100 g

- 24107070 Chicken, NS as to part, fried, coated, skin / coating eaten
- 24107071 Chicken, NS as to part, fried, coated, skin / coating not eaten
- 24127200 Chicken breast, fried, coated, skin / coating eaten, from raw
- 24127201 Chicken breast, fried, coated, skin / coating not eaten, from raw
- 24127202 Chicken breast, fried, coated, prepared skinless, coating eaten, from raw
- 24127210 Chicken breast, fried, coated, skin / coating eaten, from pre-cooked
- 24127211 Chicken breast, fried, coated, skin / coating not eaten, from pre-cooked
- 24127220 Chicken breast, fried, coated, skin / coating eaten, from fast food / restaurant
- 24127221 Chicken breast, fried, coated, skin / coating not eaten, from fast food / restaurant
- 24137300 Chicken leg, drumstick and thigh, fried, coated, skin / coating eaten

- 24137301 Chicken leg, drumstick and thigh, fried, coated, skin / coating not eaten
- 24147300 Chicken drumstick, fried, coated, skin / coating eaten, from raw
- 24147301 Chicken drumstick, fried, coated, skin / coating not eaten, from raw
- 24147302 Chicken drumstick, fried, coated, prepared skinless, coating eaten, from raw
- 24147310 Chicken drumstick, fried, coated, skin / coating eaten, from pre-cooked
- 24147311 Chicken drumstick, fried, coated, skin / coating not eaten, from pre-cooked
- 24147320 Chicken drumstick, fried, coated, skin / coating eaten, from fast food / restaurant
- 24147321 Chicken drumstick, fried, coated, skin / coating not eaten, from fast food / restaurant
- 24157300 Chicken thigh, fried, coated, skin / coating eaten, from raw
- 24157301 Chicken thigh, fried, coated, skin / coating not eaten, from raw
- 24157302 Chicken thigh, fried, coated, prepared skinless, coating eaten, from raw
- 24157310 Chicken thigh, fried, coated, skin / coating eaten, from pre-cooked
- 24157311 Chicken thigh, fried, coated, skin / coating not eaten, from pre-cooked
- 24157320 Chicken thigh, fried, coated, skin / coating eaten, from fast food
- 24157321 Chicken thigh, fried, coated, skin / coating not eaten, from fast food
- 24157330 Chicken thigh, fried, coated, skin / coating eaten, from restaurant
- 24157331 Chicken thigh, fried, coated, skin / coating not eaten, from restaurant
- 24167200 Chicken wing, fried, coated, from raw
- 24167210 Chicken wing, fried, coated, from pre-cooked
- 24167220 Chicken wing, fried, coated, from fast food
- 24167230 Chicken wing, fried, coated, from restaurant
- 24201360 Turkey, light or dark meat, fried, coated, skin not eaten
- 24201370 Turkey, light or dark meat, fried, coated, skin eaten

Processed Fruits and Fruit Juices

Processed Fruit Filling Preparations

[SFAE]= 0.5 g/100 g

- 61113500 Lemon pie filling
- 63101210 Apple pie filling
- 63113030 Cherry pie filling
- 63203700 Blueberry pie filling

Processed Vegetables and Vegetable Juices

Battered Fried Vegetable Products

[SFAE]= 0.3 g/100 g

- 72202030 Fried broccoli
- 75409020 Fried cauliflower
- 75410550 Stuffed jalapeno pepper
- 75411020 Corn fritter
- 75412010 Fried eggplant

- 75414030 Fried mushrooms
- 75414500 Fried okra
- 75415022 Fried onion rings
- 75418010 Fried summer squash, yellow or green
- 75440200 Vegetable tempura
- 75440400 Pakora

Snack Foods

Potato Stick Type Products

[SFAE]= 0.5 g/100 g

- 71205020 Potato sticks, plain
- 71205030 Potato sticks, flavored
- 71205040 Potato sticks, fry shaped

Other

Food Containing Fat-Soluble Colors, Flavors, and Nutraceutical Substances

Adjusted for content summarized in Appendix C

[SFAE] = 0.0003 to 2.9 g/100 g

- 11300100 Non-dairy milk, NFS
- 11320000 Soy milk
- 11320100 Soy milk, light
- 11320200 Soy milk, nonfat
- 11321000 Soy milk, chocolate
- 11321100 Soy milk, light, chocolate
- 11321200 Soy milk, nonfat, chocolate
- 11350000 Almond milk, sweetened
- 11350010 Almond milk, sweetened, chocolate
- 11350020 Almond milk, unsweetened
- 11350030 Almond milk, unsweetened, chocolate
- 11360000 Rice milk
- 11370000 Coconut milk
- 11400000 Yogurt, NFS
- 11400010 Yogurt, Greek, NS as to type of milk or flavor
- 11410000 Yogurt, NS as to type of milk or flavor
- 11411010 Yogurt, NS as to type of milk, plain
- 11411100 Yogurt, whole milk, plain
- 11411200 Yogurt, low fat milk, plain
- 11411300 Yogurt, nonfat milk, plain
- 11411390 Yogurt, Greek, NS as to type of milk, plain
- 11411400 Yogurt, Greek, whole milk, plain

11411410 Yogurt, Greek, low fat milk, plain
 11411420 Yogurt, Greek, nonfat milk, plain
 11430000 Yogurt, NS as to type of milk, fruit
 11431000 Yogurt, whole milk, fruit
 11432000 Yogurt, low fat milk, fruit
 11433000 Yogurt, nonfat milk, fruit
 11433990 Yogurt, Greek, NS as to type of milk, fruit
 11434000 Yogurt, Greek, whole milk, fruit
 11434010 Yogurt, Greek, low fat milk, fruit
 11434020 Yogurt, Greek, nonfat milk, fruit
 11434090 Yogurt, NS as to type of milk, flavors other than fruit
 11434100 Yogurt, whole milk, flavors other than fruit
 11434200 Yogurt, low fat milk, flavors other than fruit
 11434300 Yogurt, nonfat milk, flavors other than fruit
 11435000 Yogurt, Greek, NS as to type of milk, flavors other than fruit
 11435010 Yogurt, Greek, whole milk, flavors other than fruit
 11435020 Yogurt, Greek, low fat milk, flavors other than fruit
 11435030 Yogurt, Greek, nonfat milk, flavors other than fruit
 11435100 Yogurt, Greek, with oats
 11436000 Yogurt, liquid
 11446000 Yogurt parfait, low fat, with fruit
 11511000 Chocolate milk, NFS
 11511100 Chocolate milk, ready to drink, whole
 11511200 Chocolate milk, ready to drink, reduced fat
 11511300 Chocolate milk, ready to drink, fat free
 11511400 Chocolate milk, ready to drink, low fat
 11511550 Chocolate milk, ready to drink, reduced sugar, NS as to milk
 11511600 Chocolate milk, ready to drink, low fat (Nesquik)
 11511610 Chocolate milk, ready to drink, fat free (Nesquik)
 11511700 Chocolate milk, ready to drink, low fat, no sugar added (Nesquik)
 11512010 Hot chocolate / Cocoa, ready to drink
 11512020 Hot chocolate / Cocoa, ready to drink, made with nonfat milk
 11512030 Hot chocolate / Cocoa, ready to drink, made with non-dairy milk
 11512100 Hot chocolate / Cocoa, ready to drink, with whipped cream
 11512110 Hot chocolate / Cocoa, ready to drink, made with nonfat milk and whipped cream
 11512120 Hot chocolate / Cocoa, ready to drink, made with non-dairy milk and whipped cream
 11513000 Chocolate milk, made from dry mix, NS as to type of milk
 11513100 Chocolate milk, made from dry mix with whole milk
 11513150 Chocolate milk, made from dry mix with reduced fat milk
 11513200 Chocolate milk, made from dry mix with low fat milk
 11513300 Chocolate milk, made from dry mix with fat free milk
 11513310 Chocolate milk, made from dry mix with non-dairy milk
 11513350 Chocolate milk, made from reduced sugar mix, NS as to type of milk

- 11513355 Chocolate milk, made from reduced sugar mix with whole milk
- 11513360 Chocolate milk, made from reduced sugar mix with reduced fat milk
- 11513365 Chocolate milk, made from reduced sugar mix with low fat milk
- 11513370 Chocolate milk, made from reduced sugar mix with fat free milk
- 11513375 Chocolate milk, made from reduced sugar mix with non-dairy milk
- 11513380 Chocolate milk, made from dry mix, NS as to type of milk (Nesquik)
- 11513381 Chocolate milk, made from dry mix with whole milk (Nesquik)
- 11513382 Chocolate milk, made from dry mix with reduced fat milk (Nesquik)
- 11513383 Chocolate milk, made from dry mix with low fat milk (Nesquik)
- 11513384 Chocolate milk, made from dry mix with fat free milk (Nesquik)
- 11513385 Chocolate milk, made from dry mix with non-dairy milk (Nesquik)
- 11513390 Chocolate milk, made from no sugar added dry mix, NS as to type of milk (Nesquik)
- 11513391 Chocolate milk, made from no sugar added dry mix with whole milk (Nesquik)
- 11513392 Chocolate milk, made from no sugar added dry mix with reduced fat milk (Nesquik)
- 11513393 Chocolate milk, made from no sugar added dry mix with low fat milk (Nesquik)
- 11513394 Chocolate milk, made from no sugar added dry mix with fat free milk (Nesquik)
- 11513395 Chocolate milk, made from no sugar added dry mix with non-dairy milk (Nesquik)
- 11513400 Chocolate milk, made from syrup, NS as to type of milk
- 11513500 Chocolate milk, made from syrup with whole milk
- 11513550 Chocolate milk, made from syrup with reduced fat milk
- 11513600 Chocolate milk, made from syrup with low fat milk
- 11513700 Chocolate milk, made from syrup with fat free milk
- 11513750 Chocolate milk, made from syrup with non-dairy milk
- 11513800 Chocolate milk, made from light syrup, NS as to type of milk
- 11513801 Chocolate milk, made from light syrup with whole milk
- 11513802 Chocolate milk, made from light syrup with reduced fat milk
- 11513803 Chocolate milk, made from light syrup with low fat milk
- 11513804 Chocolate milk, made from light syrup with fat free milk
- 11513805 Chocolate milk, made from light syrup with non-dairy milk
- 11513850 Chocolate milk, made from sugar free syrup, NS as to type of milk
- 11513851 Chocolate milk, made from sugar free syrup with whole milk
- 11513852 Chocolate milk, made from sugar free syrup with reduced fat milk
- 11513853 Chocolate milk, made from sugar free syrup with low fat milk
- 11513854 Chocolate milk, made from sugar free syrup with fat free milk
- 11513855 Chocolate milk, made from sugar free syrup with non-dairy milk
- 11514100 Hot chocolate / Cocoa, made with dry mix and water
- 11514110 Hot chocolate / Cocoa, made with dry mix and whole milk
- 11514120 Hot chocolate / Cocoa, made with dry mix and reduced fat milk
- 11514130 Hot chocolate / Cocoa, made with dry mix and low fat milk
- 11514140 Hot chocolate / Cocoa, made with dry mix and fat free milk
- 11514150 Hot chocolate / Cocoa, made with dry mix and non-dairy milk
- 11514310 Hot chocolate / Cocoa, made with no sugar added dry mix and water
- 11514320 Hot chocolate / Cocoa, made with no sugar added dry mix and whole milk

11514330 Hot chocolate / Cocoa, made with no sugar added dry mix and reduced fat milk
11514340 Hot chocolate / Cocoa, made with no sugar added dry mix and low fat milk
11514350 Hot chocolate / Cocoa, made with no sugar added dry mix and fat free milk
11514360 Hot chocolate / Cocoa, made with no sugar added dry mix and non-dairy milk
11519040 Strawberry milk, NFS
11519050 Strawberry milk, whole
11519105 Strawberry milk, reduced fat
11519200 Strawberry milk, low fat
11519205 Strawberry milk, fat free
11519210 Strawberry milk, reduced sugar
11519215 Strawberry milk, non-dairy
11526000 Milk, malted
11531000 Eggnog
11541400 Milk shake with malt
11542100 Milk shake, fast food, chocolate
11542200 Milk shake, fast food, flavors other than chocolate
11543000 Milk shake, bottled, chocolate
11543010 Milk shake, bottled, flavors other than chocolate
11551050 Licuado or Batido
11553100 Fruit smoothie, NFS
11553110 Fruit smoothie, with whole fruit and dairy
11553120 Fruit smoothie, with whole fruit and dairy, added protein
11553130 Fruit smoothie juice drink, with dairy
11560000 Chocolate milk drink
11830150 Cocoa powder, not reconstituted
11830160 Chocolate beverage powder, dry mix, not reconstituted
11830165 Chocolate beverage powder, light, dry mix, not reconstituted
11830260 Milk, malted, dry mix, not reconstituted
11830400 Strawberry beverage powder, dry mix, not reconstituted
12220200 Whipped topping
12220270 Whipped topping, fat free
12220280 Whipped topping, sugar free
12310100 Sour cream, regular
12310350 Sour cream, light
12310370 Sour cream, fat free
12320100 Sour cream, imitation
14301010 Cream cheese, regular, plain
14301100 Cream cheese, regular, flavored
14303010 Cream cheese, light
14410100 Cheese, American and Swiss blends
14410110 Cheese, American
14410120 Cheese, American, reduced fat
14410130 Cheese, American, nonfat or fat free

- 14410210 Cheese, American, reduced sodium
- 14410330 Cheese spread, American or Cheddar cheese base, reduced fat
- 14410380 Cream cheese spread, fat free
- 14410500 Cheese, processed cheese food
- 14410600 Cheese, processed, with vegetables
- 14410620 Cheese, with wine
- 14420100 Cheese spread, American or Cheddar cheese base
- 14420160 Cheese spread, Swiss cheese base
- 14420200 Cheese spread, cream cheese, regular
- 14420210 Cheese spread, cream cheese, light
- 14420300 Cheese spread, pressurized can
- 14630200 Cheese souffle
- 14630300 Welsh rarebit
- 14640004 Cheese sandwich, American cheese, on wheat bread, no spread
- 14640006 Cheese sandwich, American cheese, on whole wheat bread, no spread
- 14640010 Cheese sandwich, Cheddar cheese, on wheat bread, no spread
- 14640012 Cheese sandwich, Cheddar cheese, on whole wheat bread, no spread
- 14640016 Cheese sandwich, reduced fat American cheese, on wheat bread, no spread
- 14640018 Cheese sandwich, reduced fat American cheese, on whole wheat bread, no spread
- 14640022 Cheese sandwich, reduced fat Cheddar cheese, on wheat bread, no spread
- 14640024 Cheese sandwich, reduced fat Cheddar cheese, on whole wheat bread, no spread
- 14640028 Cheese sandwich, American cheese, on wheat bread, with mayonnaise
- 14640030 Cheese sandwich, American cheese, on whole wheat bread, with mayonnaise
- 14640034 Cheese sandwich, Cheddar cheese, on wheat bread, with mayonnaise
- 14640036 Cheese sandwich, Cheddar cheese, on whole wheat bread, with mayonnaise
- 14640040 Cheese sandwich, reduced fat American cheese,, on wheat bread, with mayonnaise
- 14640042 Cheese sandwich, reduced fat American cheese, on whole wheat bread, with mayonnaise
- 14640046 Cheese sandwich, reduced fat Cheddar cheese, on wheat bread, with mayonnaise
- 14640048 Cheese sandwich, reduced fat Cheddar cheese, on whole wheat bread, with mayonnaise
- 14640052 Cheese sandwich, American cheese, on wheat bread, with butter
- 14640054 Cheese sandwich, American cheese, on whole wheat bread, with butter
- 14640058 Cheese sandwich, Cheddar cheese, on wheat bread, with butter
- 14640060 Cheese sandwich, Cheddar cheese, on whole wheat bread, with butter
- 14640064 Cheese sandwich, reduced fat American cheese, on wheat bread, with butter
- 14640066 Cheese sandwich, reduced fat American cheese, on whole wheat bread, with butter
- 14640070 Cheese sandwich, reduced fat Cheddar cheese, on wheat bread, with butter
- 14640072 Cheese sandwich, reduced fat Cheddar cheese, on whole wheat bread, with butter
- 14640110 Grilled cheese sandwich, American cheese, on wheat bread
- 14640115 Grilled cheese sandwich, American cheese, on whole wheat bread
- 14640130 Grilled cheese sandwich, Cheddar cheese, on wheat bread
- 14640135 Grilled cheese sandwich, Cheddar cheese, on whole wheat bread
- 14640160 Grilled cheese sandwich, reduced fat American cheese, on wheat bread
- 14640165 Grilled cheese sandwich, reduced fat American cheese, on whole wheat bread

14640190 Grilled cheese sandwich, reduced fat Cheddar cheese, on wheat bread
14640195 Grilled cheese sandwich, reduced fat Cheddar cheese, on whole wheat bread
26100190 Fish, NS as to type, smoked
26105190 Carp, smoked
26109190 Cod, smoked
26113190 Eel, smoked
26115190 Flounder, smoked
26117190 Haddock, smoked
26118060 Halibut, smoked
26119190 Herring, smoked, kippered
26121190 Mackerel, smoked
26131190 Pompano, smoked
26137190 Salmon, smoked
26147190 Sturgeon, smoked
26151190 Trout, smoked
26153190 Tuna, fresh, smoked
26205190 Octopus, smoked
26207110 Roe, shad, cooked
26209100 Roe, herring
26211100 Roe, sturgeon
26303190 Clams, smoked, in oil
26305180 Crab, canned
26311180 Lobster, canned
26315190 Oysters, smoked
26319180 Shrimp, canned
27510196 Cheeseburger, on wheat bun, 1 small patty
27510242 Cheeseburger, on wheat bun, 1 medium patty
27510246 Cheeseburger, on wheat bun, 1 large patty
27510255 Double cheeseburger, on wheat bun, 2 small patties
27510258 Double cheeseburger, on wheat bun, 2 medium patties
27510263 Double cheeseburger, on wheat bun, 2 large patties
27510576 Hamburger, on wheat bun, 1 small patty
27510632 Hamburger, on wheat bun, 1 medium patty
27510636 Hamburger, on wheat bun, 1 large patty
27510652 Double hamburger, on wheat bun, 2 small patties
27510657 Double hamburger, on wheat bun, 2 medium patties
27510659 Double hamburger, on wheat bun, 2 large patties
27540185 Chicken fillet sandwich, fried, on wheat bun
27540186 Chicken fillet sandwich, fried, on wheat bun, with cheese
27540205 Chicken fillet sandwich, grilled, on wheat bun
27540206 Chicken fillet sandwich, grilled, on wheat bun, with cheese
27545110 Turkey or chicken burger, on wheat bun
27550410 Fish sandwich, fried, on wheat bun

27550415 Fish sandwich, fried, on wheat bun, with cheese
27564001 Frankfurter or hot dog sandwich, NFS, plain, on wheat bun
27564002 Frankfurter or hot dog sandwich, NFS, plain, on whole wheat bun
27564004 Frankfurter or hot dog sandwich, NFS, plain, on multigrain bun
27564020 Frankfurter or hot dog sandwich, NFS, plain, on wheat bread
27564030 Frankfurter or hot dog sandwich, NFS, plain, on whole wheat bread
27564050 Frankfurter or hot dog sandwich, NFS, plain, on multigrain bread
27564061 Frankfurter or hot dog sandwich, beef, plain, on wheat bun
27564062 Frankfurter or hot dog sandwich, beef, plain, on whole wheat bun
27564064 Frankfurter or hot dog sandwich, beef, plain, on multigrain bun
27564080 Frankfurter or hot dog sandwich, beef, plain, on wheat bread
27564090 Frankfurter or hot dog sandwich, beef, plain, on whole wheat bread
27564110 Frankfurter or hot dog sandwich, beef, plain, on multigrain bread
27564121 Frankfurter or hot dog sandwich, beef and pork, plain, on wheat bun
27564122 Frankfurter or hot dog sandwich, beef and pork, plain, on whole wheat bun
27564124 Frankfurter or hot dog sandwich, beef and pork, plain, on multigrain bun
27564140 Frankfurter or hot dog sandwich, beef and pork, plain, on wheat bread
27564150 Frankfurter or hot dog sandwich, beef and pork, plain, on whole wheat bread
27564170 Frankfurter or hot dog sandwich, beef and pork, plain, on multigrain bread
27564181 Frankfurter or hot dog sandwich, meat and poultry, plain, on wheat bun
27564182 Frankfurter or hot dog sandwich, meat and poultry, plain, on whole wheat bun
27564184 Frankfurter or hot dog sandwich, meat and poultry, plain, on multigrain bun
27564200 Frankfurter or hot dog sandwich, meat and poultry, plain, on wheat bread
27564210 Frankfurter or hot dog sandwich, meat and poultry, plain, on whole wheat bread
27564230 Frankfurter or hot dog sandwich, meat and poultry, plain, on multigrain bread
27564241 Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on wheat bun
27564242 Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on whole wheat bun
27564244 Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on multigrain bun
27564260 Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on wheat bread
27564270 Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on whole wheat bread
27564290 Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on multigrain bread
27564301 Frankfurter or hot dog sandwich, reduced fat or light, plain, on wheat bun
27564302 Frankfurter or hot dog sandwich, reduced fat or light, plain, on whole wheat bun
27564304 Frankfurter or hot dog sandwich, reduced fat or light, plain, on multigrain bun
27564320 Frankfurter or hot dog sandwich, reduced fat or light, plain, on wheat bread
27564330 Frankfurter or hot dog sandwich, reduced fat or light, plain, on whole wheat bread
27564350 Frankfurter or hot dog sandwich, reduced fat or light, plain, on multigrain bread
27564361 Frankfurter or hot dog sandwich, fat free, plain, on wheat bun
27564362 Frankfurter or hot dog sandwich, fat free, plain, on whole wheat bun
27564364 Frankfurter or hot dog sandwich, fat free, plain, on multigrain bun
27564380 Frankfurter or hot dog sandwich, fat free, plain, on wheat bread
27564390 Frankfurter or hot dog sandwich, fat free, plain, on whole wheat bread
27564410 Frankfurter or hot dog sandwich, fat free, plain, on multigrain bread

27564430 Frankfurter or hot dog sandwich, meatless, plain, on bread
27564441 Frankfurter or hot dog sandwich, with chili, on wheat bun
27564442 Frankfurter or hot dog sandwich, with chili, on whole wheat bun
27564444 Frankfurter or hot dog sandwich, with chili, on multigrain bun
27564460 Frankfurter or hot dog sandwich, with chili, on wheat bread
27564470 Frankfurter or hot dog sandwich, with chili, on whole wheat bread
27564490 Frankfurter or hot dog sandwich, with chili, on multigrain bread
27564501 Frankfurter or hot dog sandwich, with meatless chili, on wheat bun
27564502 Frankfurter or hot dog sandwich, with meatless chili, on whole wheat bun
27564504 Frankfurter or hot dog sandwich, with meatless chili, on multigrain bun
27564510 Frankfurter or hot dog sandwich, with meatless chili, on white bread
27564520 Frankfurter or hot dog sandwich, with meatless chili, on wheat bread
27564530 Frankfurter or hot dog sandwich, with meatless chili, on whole wheat bread
27564540 Frankfurter or hot dog sandwich, with meatless chili, on whole grain white bread
27564550 Frankfurter or hot dog sandwich, with meatless chili, on multigrain bread
27564570 Frankfurter or hot dog sandwich, meatless, on bread, with meatless chili
28150220 Flounder with chopped broccoli, diet frozen meal
28150510 Fish in lemon-butter sauce with starch item, vegetable, frozen meal
28153010 Shrimp and clams in tomato-based sauce, with noodles, frozen meal
28154010 Shrimp and vegetables in sauce with noodles, diet frozen meal
28310110 Beef, broth, bouillon, or consomme
28321130 Bacon soup, cream of, prepared with water
28340110 Chicken or turkey broth, bouillon, or consomme
28340150 Mexican style chicken broth soup stock
28340179 Beef broth, less or reduced sodium, canned or ready-to-serve
28340180 Chicken or turkey broth, less or reduced sodium, canned or ready-to-serve
28345010 Chicken or turkey soup, cream of, canned, reduced sodium, NS as to made with milk or water
28345020 Chicken or turkey soup, cream of, canned, reduced sodium, made with milk
28345030 Chicken or turkey soup, cream of, canned, reduced sodium, made with water
28345110 Chicken or turkey soup, cream of, NS as to prepared with milk or water
28345120 Chicken or turkey soup, cream of, prepared with milk
28345130 Chicken or turkey soup, cream of, prepared with water
28345160 Chicken or turkey mushroom soup, cream of, prepared with milk
28350110 Crab soup, NS as to tomato-base or cream style
28355210 Crab soup, cream of, prepared with milk
28355350 Salmon soup, cream style
28355410 Shrimp soup, cream of, NS as to prepared with milk or water
28355420 Shrimp soup, cream of, prepared with milk
28355430 Shrimp soup, cream of, prepared with water
28360100 Meat broth, Puerto Rican style
32101000 Egg, creamed
32101500 Egg, Benedict
32102000 Egg, deviled

32103000 Egg salad, made with mayonnaise
32103015 Egg salad, made with light mayonnaise
32103020 Egg salad, made with mayonnaise-type salad dressing
32103025 Egg salad, made with light mayonnaise-type salad dressing
32103030 Egg salad, made with creamy dressing
32103035 Egg salad, made with light creamy dressing
32103040 Egg salad, made with Italian dressing
32103045 Egg salad, made with light Italian dressing
32103050 Egg Salad, made with any type of fat free dressing
32105180 Huevos rancheros
32105190 Egg casserole with bread, cheese, milk and meat
32105310 Ripe plantain omelet, Puerto Rican style
32105330 Scrambled eggs with jerked beef, Puerto Rican style
32110100 Eggs a la Malaguena, Puerto Rican style
32110150 Shrimp-egg patty
32129990 Egg omelet or scrambled egg, NS as to fat
32130000 Egg omelet or scrambled egg, made with margarine
32130010 Egg omelet or scrambled egg, made with oil
32130020 Egg omelet or scrambled egg, made with butter
32130040 Egg omelet or scrambled egg, made with animal fat or meat drippings
32130060 Egg omelet or scrambled egg, made with cooking spray
32130065 Egg omelet or scrambled egg, NS as to fat type
32130070 Egg omelet or scrambled egg, no added fat
32130080 Egg omelet or scrambled egg, from fast food / restaurant
32130100 Egg omelet or scrambled egg, with cheese, made with margarine
32130110 Egg omelet or scrambled egg, with cheese, made with oil
32130120 Egg omelet or scrambled egg, with cheese, made with butter
32130140 Egg omelet or scrambled egg, with cheese, made with animal fat or meat drippings
32130160 Egg omelet or scrambled egg, with cheese, made with cooking spray
32130170 Egg omelet or scrambled egg, with cheese, no added fat
32130190 Egg omelet or scrambled egg, with meat, NS as to fat
32130200 Egg omelet or scrambled egg, with meat, made with margarine
32130210 Egg omelet or scrambled egg, with meat, made with oil
32130220 Egg omelet or scrambled egg, with meat, made with butter
32130240 Egg omelet or scrambled egg, with meat, made with animal fat or meat drippings
32130260 Egg omelet or scrambled egg, with meat, made with cooking spray
32130265 Egg omelet or scrambled egg, with meat, NS as to fat type
32130270 Egg omelet or scrambled egg, with meat, no added fat
32130290 Egg omelet or scrambled egg, with cheese and meat, NS as to fat
32130300 Egg omelet or scrambled egg, with cheese and meat, made with margarine
32130310 Egg omelet or scrambled egg, with cheese and meat, made with oil
32130320 Egg omelet or scrambled egg, with cheese and meat, made with butter
32130340 Egg omelet or scrambled egg, with cheese and meat, made with animal fat or meat drippings

- 32130360 Egg omelet or scrambled egg, with cheese and meat, made with cooking spray
- 32130365 Egg omelet or scrambled egg, with cheese and meat, NS as to fat type
- 32130370 Egg omelet or scrambled egg, with cheese and meat, no added fat
- 32130400 Egg omelet or scrambled egg, with tomatoes, fat added
- 32130410 Egg omelet or scrambled egg, with tomatoes, no added fat
- 32130420 Egg omelet or scrambled egg, with tomatoes, NS as to fat
- 32130430 Egg omelet or scrambled egg, with dark-green vegetables, fat added
- 32130440 Egg omelet or scrambled egg, with dark-green vegetables, no added fat
- 32130450 Egg omelet or scrambled egg, with dark-green vegetables, NS as to fat
- 32130460 Egg omelet or scrambled egg, with tomatoes and dark-green vegetables, fat added
- 32130470 Egg omelet or scrambled egg, with tomatoes and dark-green vegetables, no fat added
- 32130480 Egg omelet or scrambled egg, with tomatoes and dark-green vegetables, NS as to fat
- 32130490 Egg omelet or scrambled egg, with vegetables other than dark green and/or tomatoes, fat added
- 32130500 Egg omelet or scrambled egg, with vegetables other than dark green and/or tomatoes, no added fat
- 32130510 Egg omelet or scrambled egg, with vegetables other than dark green and/or tomatoes, NS as to fat
- 32130600 Egg omelet or scrambled egg, with cheese and tomatoes, fat added
- 32130610 Egg omelet or scrambled egg, with cheese and tomatoes, no added fat
- 32130620 Egg omelet or scrambled egg, with cheese and tomatoes, NS as to fat
- 32130630 Egg omelet or scrambled egg, with cheese and dark-green vegetables, fat added
- 32130640 Egg omelet or scrambled egg, with cheese and dark-green vegetables, no added fat
- 32130650 Egg omelet or scrambled egg, with cheese and dark-green vegetables, NS as to fat
- 32130660 Egg omelet or scrambled egg, with cheese, tomatoes, and dark-green vegetables, fat added
- 32130670 Egg omelet or scrambled egg, with cheese, tomatoes, and dark-green vegetables, no added fat
- 32130680 Egg omelet or scrambled egg, with cheese, tomatoes, and dark-green vegetables, NS as to fat
- 32130690 Egg omelet or scrambled egg, with cheese and vegetables other than dark green and/or tomatoes, fat added
- 32130700 Egg omelet or scrambled egg, with cheese and vegetables other than dark green and/or tomatoes, no added fat
- 32130710 Egg omelet or scrambled egg, with cheese and vegetables other than dark green and/or tomatoes, NS as to fat
- 32130800 Egg omelet or scrambled egg, with meat and tomatoes, fat added
- 32130810 Egg omelet or scrambled egg, with meat and tomatoes, no added fat
- 32130820 Egg omelet or scrambled egg, with meat and tomatoes, NS as to fat
- 32130830 Egg omelet or scrambled egg, with meat and dark-green vegetables, fat added
- 32130840 Egg omelet or scrambled egg, with meat and dark-green vegetables, no added fat
- 32130850 Egg omelet or scrambled egg, with meat and dark-green vegetables, NS as to fat
- 32130860 Egg omelet or scrambled egg, with meat, tomatoes, and dark-green vegetables, fat added
- 32130870 Egg omelet or scrambled egg, with meat, tomatoes, and dark-green vegetables, no added fat
- 32130880 Egg omelet or scrambled egg, with meat, tomatoes, and dark-green vegetables, NS as to fat
- 32130890 Egg omelet or scrambled egg, with meat and vegetables other than dark-green and/or tomatoes, fat added

- 32130900 Egg omelet or scrambled egg, with meat and vegetables other than dark-green and/or tomatoes, no added fat
- 32130910 Egg omelet or scrambled egg, with meat and vegetables other than dark-green and/or tomatoes, NS as to fat
- 32131000 Egg omelet or scrambled egg, with cheese, meat, and tomatoes, fat added
- 32131010 Egg omelet or scrambled egg, with cheese, meat, and tomatoes, no added fat
- 32131020 Egg omelet or scrambled egg, with cheese, meat, and tomatoes, NS as to fat
- 32131030 Egg omelet or scrambled egg, with cheese, meat, and dark-green vegetables, fat added
- 32131040 Egg omelet or scrambled egg, with cheese, meat, and dark-green vegetables, no added fat
- 32131050 Egg omelet or scrambled egg, with cheese, meat, and dark-green vegetables, NS as to fat
- 32131060 Egg omelet or scrambled egg, with cheese, meat, tomatoes, and dark-green vegetables, fat added
- 32131070 Egg omelet or scrambled egg, with cheese, meat, tomatoes, and dark-green vegetables, no added fat
- 32131080 Egg omelet or scrambled egg, with cheese, meat, tomatoes, and dark-green vegetables, NS as to fat
- 32131090 Egg omelet or scrambled egg, with cheese, meat, and vegetables other than dark-green and/or tomatoes, fat added
- 32131100 Egg omelet or scrambled egg, with cheese, meat, and vegetables other than dark-green and/or tomatoes, no added fat
- 32131110 Egg omelet or scrambled egg, with cheese, meat, and vegetables other than dark-green and/or tomatoes, NS as to fat
- 32131200 Egg omelet or scrambled egg, with potatoes and/or onions, fat added
- 32131210 Egg omelet or scrambled egg, with potatoes and/or onions, no added fat
- 32131220 Egg omelet or scrambled egg, with potatoes and/or onions, NS as to fat
- 32203010 Egg salad sandwich
- 32204010 Scrambled egg sandwich
- 32400055 Egg white omelet, scrambled, or fried, NS as to fat
- 32400060 Egg white omelet, scrambled, or fried, made with margarine
- 32400065 Egg white omelet, scrambled, or fried, made with oil
- 32400070 Egg white omelet, scrambled, or fried, made with butter
- 32400075 Egg white omelet, scrambled, or fried, made with cooking spray
- 32400078 Egg white omelet, scrambled, or fried, NS as to fat type
- 32400080 Egg white omelet, scrambled, or fried, no added fat
- 32400100 Egg white, omelet, scrambled, or fried, with cheese
- 32400200 Egg white, omelet, scrambled, or fried, with meat
- 32400300 Egg white, omelet, scrambled, or fried, with vegetables
- 32400400 Egg white, omelet, scrambled, or fried, with cheese and meat
- 32400500 Egg white, omelet, scrambled, or fried, with cheese and vegetables
- 32400600 Egg white, omelet, scrambled, or fried, with meat and vegetables
- 32400700 Egg white, omelet, scrambled, or fried, with cheese, meat, and vegetables
- 33001010 Egg substitute, omelet, scrambled, or fried, fat added
- 33001050 Egg substitute, omelet, scrambled, or fried, no added fat
- 33401000 Egg substitute, omelet, scrambled, or fried, with cheese
- 33401100 Egg substitute, omelet, scrambled, or fried, with meat

33401200 Egg substitute, omelet, scrambled, or fried, with vegetables
 33401300 Egg substitute, omelet, scrambled, or fried, with cheese and meat
 33401400 Egg substitute, omelet, scrambled, or fried, with cheese and vegetables
 33401500 Egg substitute, omelet, scrambled, or fried, with meat and vegetables
 33401600 Egg substitute, omelet, scrambled, or fried, with cheese, meat, and vegetables
 41310900 Bean chips
 41410015 Soy chips
 41421010 Soybean curd, deep fried
 41421020 Soybean curd, breaded, fried
 41440000 Textured vegetable protein, dry
 41810200 Bacon strip, meatless
 41810250 Bacon bits
 41810400 Breakfast link, pattie, or slice, meatless
 41810600 Chicken, meatless, NFS
 41810610 Chicken, meatless, breaded, fried
 41811400 Frankfurter or hot dog, meatless
 41811600 Luncheon slice, meatless-beef, chicken, salami or turkey
 41811800 Meatball, meatless
 41811890 Vegetarian burger or patty, meatless, no bun
 41812000 Sandwich spread, meat substitute type
 41812400 Vegetarian pot pie
 41812450 Vegetarian chili, made with meat substitute
 41812500 Tofu and vegetables including carrots, broccoli, and/or dark-green leafy; no potatoes, with soy-based sauce
 41812510 Tofu and vegetables excluding carrots, broccoli, and dark-green leafy; no potatoes, with soy-based sauce
 41812600 Vegetarian, fillet
 41812800 Vegetarian stew
 41812850 Vegetarian stroganoff
 41901020 Soyburger, meatless, with cheese on bun
 42100050 Nuts, NFS
 42100100 Almonds, NFS
 42104000 Cashews, NFS
 42110000 Mixed nuts, NFS
 42111000 Peanuts, NFS
 42111200 Peanuts, dry roasted, salted
 42111205 Peanuts, dry roasted, lightly salted
 42111210 Peanuts, dry roasted, unsalted
 42301020 Peanut butter sandwich, with regular peanut butter, on wheat bread
 42301025 Peanut butter sandwich, with regular peanut butter, on whole wheat bread
 42301120 Peanut butter sandwich, with reduced fat peanut butter, on wheat bread
 42301125 Peanut butter sandwich, with reduced fat peanut butter, on whole wheat bread
 42302020 Peanut butter and jelly sandwich, with regular peanut butter, regular jelly, on wheat bread

- 42302025 Peanut butter and jelly sandwich, with regular peanut butter, regular jelly, on whole wheat bread
- 42302060 Peanut butter and jelly sandwich, with reduced fat peanut butter, regular jelly, on wheat bread
- 42302065 Peanut butter and jelly sandwich, with reduced fat peanut butter, regular jelly, on whole wheat bread
- 42302110 Peanut butter and jelly sandwich, with regular peanut butter, reduced sugar jelly, on wheat bread
- 42302115 Peanut butter and jelly sandwich, with regular peanut butter, reduced sugar jelly, on whole wheat bread
- 42302160 Peanut butter and jelly sandwich, with reduced fat peanut butter, reduced sugar jelly, on wheat bread
- 42302165 Peanut butter and jelly sandwich, with reduced fat peanut butter, reduced sugar jelly, on whole wheat bread
- 44201000 Carob chips
- 51000180 Bread, made from home recipe or purchased at a bakery, NS as to major flour
- 51000190 Bread, made from home recipe or purchased at a bakery, toasted, NS as to major flour
- 51108010 Focaccia, Italian flatbread, plain
- 51108100 Naan, Indian flatbread
- 51109010 Bread, Italian, Grecian, Armenian
- 51109040 Bread, Italian, Grecian, Armenian, toasted
- 51115010 Bread, cornmeal and molasses
- 51115020 Bread, cornmeal and molasses, toasted
- 51119010 Bread, egg, Challah
- 51119040 Bread, egg, Challah, toasted
- 51121015 Garlic bread, NFS
- 51121025 Garlic bread, from fast food / restaurant
- 51121035 Garlic bread, from frozen
- 51121045 Garlic bread, with parmesan cheese, from fast food / restaurant
- 51121055 Garlic bread, with parmesan cheese, from frozen
- 51121065 Garlic bread, with melted cheese, from fast food / restaurant
- 51121075 Garlic bread, with melted cheese, from frozen
- 51123010 Bread, high protein
- 51123020 Bread, high protein, toasted
- 51127010 Bread, potato
- 51127020 Bread, potato, toasted
- 51129010 Bread, raisin
- 51129020 Bread, raisin, toasted
- 51133010 Bread, sour dough
- 51133020 Bread, sour dough, toasted
- 51136000 Bruschetta
- 51140100 Bread, dough, fried
- 51160000 Roll, sweet, no frosting
- 51160100 Roll, sweet, cinnamon bun, no frosting
- 51160110 Roll, sweet, cinnamon bun, frosted

51161000 Pan Dulce, with fruit, no frosting
51161020 Roll, sweet, with fruit, frosted
51161030 Roll, sweet, with fruit, frosted, diet
51161050 Roll, sweet, frosted
51161250 Pan Dulce, no topping
51161270 Pan Dulce, with sugar topping
51161280 Pan Dulce, with raisins and icing
51168000 Bread, Spanish coffee
51182010 Bread stuffing
51182020 Bread stuffing made with egg
51183990 Breadsticks, NFS
51184000 Breadsticks, hard, NFS
51184100 Breadsticks, hard, reduced sodium
51184200 Breadsticks, soft, NFS
51184210 Breadsticks, soft, from fast food / restaurant
51184220 Breadsticks, soft, from frozen
51184230 Breadsticks, soft, with parmesan cheese, from fast food / restaurant
51184240 Breadsticks, soft, with parmesan cheese, from frozen
51184250 Breadsticks, soft, topped with melted cheese
51184260 Breadsticks, soft, stuffed with melted cheese
51185000 Croutons
51187000 Melba toast
51187020 Anisette toast
51188500 Zwieback toast
51300050 Bread, whole grain white
51300060 Bread, whole grain white, toasted
51300110 Bread, whole wheat
51300120 Bread, whole wheat, toasted
51300140 Bread, whole wheat, made from home recipe or purchased at bakery
51300150 Bread, whole wheat, made from home recipe or purchased at bakery, toasted
51300175 Bread, chappatti or roti, wheat
51300180 Bread, puri, wheat
51300185 Bread, paratha, wheat
51300210 Bread, whole wheat, with raisins
51300220 Bread, whole wheat, with raisins, toasted
51300300 Bread, sprouted wheat
51300310 Bread, sprouted wheat, toasted
51301010 Bread, wheat or cracked wheat
51301020 Bread, wheat or cracked wheat, toasted
51301040 Bread, wheat or cracked wheat, made from home recipe or purchased at bakery
51301050 Bread, wheat or cracked wheat, made from home recipe or purchased at bakery, toasted
51301120 Bread, wheat or cracked wheat, with raisins
51301130 Bread, wheat or cracked wheat, with raisins, toasted

51301510 Bread, wheat or cracked wheat, reduced calorie and/or high fiber
51301520 Bread, wheat or cracked wheat, reduced calorie and/or high fiber, toasted
51301540 Bread, French or Vienna, whole wheat
51301550 Bread, French or Vienna, whole wheat, toasted
51301600 Bread, pita, whole wheat
51301610 Bread, pita, whole wheat, toasted
51301620 Bread, pita, wheat or cracked wheat
51301630 Bread, pita, wheat or cracked wheat, toasted
51306000 Breadsticks, hard, whole wheat
51320010 Roll, wheat or cracked wheat
51320060 Roll, wheat or cracked wheat, hot dog bun
51320070 Roll, wheat or cracked wheat, hamburger bun
51320500 Roll, whole wheat
51320550 Roll, whole wheat, hot dog bun
51320560 Roll, whole wheat, hamburger bun
51320700 Roll, whole grain white
51320710 Roll, whole grain white, hot dog bun
51320720 Roll, whole grain white, hamburger bun
51401010 Bread, rye
51401020 Bread, rye, toasted
51401030 Bread, marble rye and pumpernickel
51401040 Bread, marble rye and pumpernickel, toasted
51404010 Bread, pumpernickel
51404020 Bread, pumpernickel, toasted
51407010 Bread, black
51407020 Bread, black, toasted
51420000 Roll, rye
51421000 Roll, pumpernickel
51501010 Bread, oatmeal
51501020 Bread, oatmeal, toasted
51501040 Bread, oat bran
51501050 Bread, oat bran, toasted
51502010 Roll, oatmeal
51601010 Bread, multigrain, toasted
51601020 Bread, multigrain
51601210 Bread, multigrain, with raisins
51601220 Bread, multigrain, with raisins, toasted
51602010 Bread, multigrain, reduced calorie and/or high fiber
51602020 Bread, multigrain, reduced calorie and/or high fiber, toasted
51620000 Roll, multigrain
51620020 Roll, multigrain, hot dog bun
51620030 Roll, multigrain, hamburger bun
51801010 Bread, barley

51801020 Bread, barley, toasted
51805020 Bread, sunflower meal, toasted
51806010 Bread, rice
51806020 Bread, rice, toasted
51807000 Injera, Ethiopian bread
51808000 Bread, gluten free
51808010 Bread, gluten free, toasted
51808050 Breadsticks, hard, gluten free
51808100 Roll, gluten free
52201000 Cornbread, prepared from mix
52202060 Cornbread, made from home recipe
52204000 Cornbread stuffing
52206010 Cornbread muffin, stick, round
52206060 Cornbread muffin, stick, round, made from home recipe
52213010 Spoonbread
52401000 Bread, Boston Brown
52403000 Bread, nut
52404060 Bread, pumpkin
52405010 Bread, fruit
52407000 Bread, zucchini
52408000 Bread, Irish soda
53110000 Cake, fruit cake, light or dark, holiday type cake
53200100 Cookie, batter or dough, raw
53201000 Cookie, NFS
53202000 Cookie, almond
53203000 Cookie, applesauce
53203500 Cookie, biscotti
53205250 Cookie, butterscotch, brownie
53215500 Cookie, coconut
53220000 Cookie, fruit-filled bar
53220010 Cookie, fruit-filled bar, fat free
53220030 Cookie, fig bar
53220040 Cookie, fig bar, fat free
53222010 Cookie, fortune
53223000 Cookie, gingersnaps
53223100 Cookie, granola
53224000 Cookie, ladyfinger
53224250 Cookie, lemon bar
53225000 Cookie, macaroon
53226000 Cookie, marshmallow, with coconut
53226500 Cookie, marshmallow, with rice cereal, no bake
53226600 Cookie, marshmallow and peanut butter, with oat cereal, no bake
53228000 Cookie, meringue

53230000 Cookie, molasses
53231000 Cookie, Lebkuchen
53231400 Cookie, multigrain, high fiber
53233000 Cookie, oatmeal
53233010 Cookie, oatmeal, with raisins
53233040 Cookie, oatmeal, reduced fat, NS as to raisins
53233050 Cookie, oatmeal sandwich, with creme filling
53233080 Cookie, oatmeal sandwich, with peanut butter and jelly filling
53234000 Cookie, peanut butter
53234250 Cookie, peanut butter with rice cereal, no bake
53235000 Cookie, peanut butter sandwich
53235600 Cookie, Pfeffernusse
53236000 Cookie, Pizzelle
53236100 Cookie, pumpkin
53237000 Cookie, raisin
53237010 Cookie, raisin sandwich, cream-filled
53237500 Cookie, rum ball, no bake
53238000 Cookie, sandwich-type, not chocolate or vanilla
53239000 Cookie, shortbread
53239010 Cookie, shortbread, reduced fat
53239100 Pocky
53240000 Cookie, animal
53241500 Cookie, butter or sugar
53241510 Marie biscuit
53241600 Cookie, butter or sugar, with fruit and/or nuts
53242500 Cookie, toffee bar
53243000 Cookie, vanilla sandwich
53243010 Cookie, vanilla sandwich, extra filling
53243050 Cookie, vanilla sandwich, reduced fat
53246000 Cookie, tea, Japanese
53251100 Cookie, rugelach
53260200 Cookie, oatmeal, sugar free
53260300 Cookie, sandwich, sugar free
53260400 Cookie, sugar or plain, sugar free
53260600 Cookie, peanut butter, sugar free
53261000 Cookie, gluten free
53270100 Cookies, Puerto Rican style
53300100 Pie, NFS
53300170 Pie, individual size or tart, NFS
53300180 Pie, fried, NFS
53301000 Pie, apple, two crust
53301070 Pie, apple, individual size or tart
53301080 Pie, apple, fried pie

53301500 Pie, apple, one crust
53302000 Pie, apricot, two crust
53302070 Pie, apricot, individual size or tart
53302080 Pie, apricot, fried pie
53303000 Pie, blackberry, two crust
53303070 Pie, blackberry, individual size or tart
53303500 Pie, berry, not blackberry, blueberry, boysenberry, huckleberry, raspberry, or strawberry; two crust
53303510 Pie, berry, not blackberry, blueberry, boysenberry, huckleberry, raspberry, or strawberry; one crust
53303570 Pie, berry, not blackberry, blueberry, boysenberry, huckleberry, raspberry, or strawberry, individual size or tart
53304000 Pie, blueberry, two crust
53304070 Pie, blueberry, individual size or tart
53305000 Pie, cherry, two crust
53305010 Pie, cherry, one crust
53305070 Pie, cherry, individual size or tart
53305080 Pie, cherry, fried pie
53305700 Pie, lemon, not cream or meringue
53305720 Pie, lemon, not cream or meringue, individual size or tart
53305750 Pie, lemon, fried pie
53306000 Pie, mince, two crust
53307000 Pie, peach, two crust
53307050 Pie, peach, one crust
53307070 Pie, peach, individual size or tart
53307080 Pie, peach, fried pie
53307500 Pie, pear, two crust
53307570 Pie, pear, individual size or tart
53308000 Pie, pineapple, two crust
53308070 Pie, pineapple, individual size or tart
53309000 Pie, raisin, two crust
53309070 Pie, raisin, individual size or tart
53310000 Pie, raspberry, one crust
53310050 Pie, raspberry, two crust
53311000 Pie, rhubarb, two crust
53312000 Pie, strawberry, one crust
53313000 Pie, strawberry-rhubarb, two crust
53314000 Pie, strawberry, individual size or tart
53340000 Pie, apple-sour cream
53340500 Pie, cherry, made with cream cheese and sour cream
53341000 Pie, banana cream
53341070 Pie, banana cream, individual size or tart
53343000 Pie, coconut cream
53343070 Pie, coconut cream, individual size or tart

53344200 Mixed fruit tart filled with custard or cream cheese
53345000 Pie, lemon cream
53345070 Pie, lemon cream, individual size or tart
53347000 Pie, pumpkin
53347070 Pie, pumpkin, individual size or tart
53348000 Pie, strawberry cream
53348070 Pie, strawberry cream, individual size or tart
53381000 Pie, lemon meringue
53381070 Pie, lemon meringue, individual size or tart
53390100 Pie, tofu with fruit
53391200 Vanilla wafer dessert base
54001000 Crackers, NFS
54102010 Graham crackers
54102015 Graham crackers (Teddy Grahams)
54102050 Crackers, oatmeal
54102060 Crackers, Cuban
54102100 Graham crackers, reduced fat
54102200 Graham crackers, sandwich, with filling
54103000 Crackers, breakfast biscuit
54200100 Crackers, butter, reduced sodium
54201010 Crackers, matzo, reduced sodium
54202020 Crackers, saltine, reduced sodium
54204020 Crackers, wheat, reduced sodium
54204030 Crackers, woven wheat, reduced sodium
54301010 Crackers, butter, plain
54301020 Crackers, butter, flavored
54301030 Crackers, butter (Ritz)
54301100 Crackers, butter, reduced fat
54304000 Crackers, cheese
54304005 Crackers, cheese (Cheez-It)
54304020 Crackers, cheese (Goldfish)
54304100 Crackers, cheese, reduced fat
54304110 Crackers, cheese, reduced sodium
54304150 Crackers, cheese, whole grain
54305010 Crackers, crispbread
54305020 Crackers, flatbread
54307000 Crackers, matzo
54308000 Crackers, milk
54313000 Crackers, oyster
54318000 Chips, rice
54318500 Rice cake
54319000 Crackers, rice
54319005 Crackers, rice and nuts

54319020 Popcorn cake
54319500 Rice paper
54325000 Crackers, saltine
54325010 Crackers, saltine, reduced fat
54325060 Crackers, saltine, multigrain
54326000 Crackers, multigrain
54328000 Crackers, sandwich
54328100 Crackers, sandwich, peanut butter filled
54328105 Crackers, sandwich, peanut butter filled (Ritz)
54328110 Crackers, sandwich, reduced fat, peanut butter filled
54328120 Crackers, whole grain, sandwich, peanut butter filled
54328200 Crackers, sandwich, cheese filled
54328210 Crackers, sandwich, cheese filled (Ritz)
54336000 Crackers, water
54336100 Crackers, wonton
54337010 Crackers, woven wheat
54337020 Crackers, woven wheat, plain (Triscuit)
54337030 Crackers, woven wheat, flavored (Triscuit)
54337060 Crackers, woven wheat, reduced fat
54338000 Crackers, wheat
54338010 Crackers, wheat, plain (Wheat Thins)
54338020 Crackers, wheat, flavored (Wheat Thins)
54338100 Crackers, wheat, reduced fat
54339000 Crackers, corn
54340100 Crackers, gluten free, plain
54340110 Crackers, gluten free, flavored
54401011 Corn nuts
54401021 Corn chips, plain
54401026 Corn chips, flavored
54401031 Corn chips, plain (Fritos)
54401035 Corn chips, flavored (Fritos)
54401055 Cheese flavored corn snacks
54401065 Cheese flavored corn snacks, reduced fat
54401075 Tortilla chips, plain
54401081 Cheese flavored corn snacks (Cheetos)
54401085 Tortilla chips, flavored
54401090 Corn chips, reduced sodium
54401095 Tortilla chips, popped
54401110 Tortilla chips, nacho cheese flavor (Doritos)
54401111 Tortilla chips, cool ranch flavor (Doritos)
54401112 Tortilla chips, other flavors (Doritos)
54401121 Tortilla chips, reduced fat, plain
54401122 Tortilla chips, reduced fat, flavored

54401170 Tortilla chips, low fat, unsalted
54402080 Tortilla chips, reduced sodium
54402200 Snack mix
54402610 Potato chips, restructured, multigrain
54402700 Pita chips
54403001 Popcorn, NFS
54403005 Popcorn, movie theater, with added butter
54403006 Popcorn, movie theater, unbuttered
54403010 Popcorn, air-popped, unbuttered
54403040 Popcorn, air-popped, with added butter or margarine
54403045 Popcorn, popped in oil, unbuttered
54403046 Popcorn, popped in oil, with added butter or margarine
54403051 Popcorn, microwave, NFS
54403052 Popcorn, microwave, plain
54403053 Popcorn, microwave, plain, light
54403054 Popcorn, microwave, low sodium
54403055 Popcorn, microwave, unsalted
54403056 Popcorn, microwave, butter flavored
54403057 Popcorn, microwave, butter flavored, light
54403058 Popcorn, microwave, cheese flavored
54403059 Popcorn, microwave, kettle corn
54403061 Popcorn, microwave, kettle corn, light
54403062 Popcorn, microwave, other flavored
54403080 Popcorn, ready-to-eat packaged, NFS
54403081 Popcorn, ready-to-eat packaged, plain
54403082 Popcorn, ready-to-eat packaged, plain, light
54403083 Popcorn, ready-to-eat packaged, low sodium
54403084 Popcorn, ready-to-eat packaged, unsalted
54403085 Popcorn, ready-to-eat packaged, butter flavored
54403086 Popcorn, ready-to-eat packaged, butter flavored, light
54403087 Popcorn, ready-to-eat packaged, cheese flavored
54403088 Popcorn, ready-to-eat packaged, cheese flavored, light
54403089 Popcorn, ready-to-eat-packaged, kettle corn
54403091 Popcorn, ready-to-eat packaged, kettle corn, light
54403092 Popcorn, ready-to-eat packaged, other flavored
54403110 Popcorn, caramel coated
54403120 Popcorn, caramel coated, with nuts
54404000 Popcorn chips, plain
54404010 Popcorn chips, other flavors
54404020 Popcorn chips, sweet flavors
54406010 Onion flavored rings
54406200 Shrimp chips
54408000 Pretzels, NFS

54408015 Pretzels, hard, NFS
54408016 Pretzels, hard, plain, salted
54408017 Pretzels, hard, plain, lightly salted
54408030 Pretzels, hard, plain, unsalted
54408035 Pretzels, hard, flavored
54408070 Pretzels, hard, multigrain
54408081 Pretzels, hard, plain, gluten free
54408082 Pretzels, hard, flavored, gluten free
54408105 Pretzel chips, hard, plain
54408110 Pretzel chips, hard, flavored
54408115 Pretzel chips, hard, gluten free
54408190 Pretzels, hard, coated, NFS
54408250 Pretzels, hard, yogurt coated
54408260 Pretzels, hard, coated, gluten free
54408290 Pretzels, hard, filled, NFS
54408300 Pretzels, hard, cheese filled
54408310 Pretzels, hard, peanut butter filled
54408400 Pretzels, soft, NFS
54408405 Pretzels, soft, ready-to-eat, NFS
54408410 Pretzels, soft, ready-to-eat, salted, buttered
54408411 Pretzels, soft, ready-to-eat, unsalted, buttered
54408415 Pretzels, soft, ready-to-eat, salted, no butter
54408416 Pretzels, soft, ready-to-eat, unsalted, no butter
54408420 Pretzels, soft, ready-to-eat, cinnamon sugar coated
54408422 Pretzels, soft, ready-to-eat, coated or flavored
54408430 Pretzels, soft, ready-to-eat, topped with meat
54408432 Pretzels, soft, ready-to-eat, topped with cheese
54408450 Pretzels, soft, from frozen, NFS
54408455 Pretzels, soft, from frozen, salted
54408456 Pretzels, soft, from frozen, unsalted
54408460 Pretzels, soft, from frozen, cinnamon sugar coated
54408462 Pretzels, soft, from frozen, coated or flavored
54408465 Pretzels, soft, from frozen, topped with meat
54408466 Pretzels, soft, from frozen, topped with cheese
54408470 Pretzels, soft, filled with cheese
54408475 Pretzels, soft, from school lunch
54408480 Pretzels, soft, multigrain
54408485 Pretzels, soft, gluten free
54408486 Pretzels, soft, gluten free, cinnamon sugar coated
54408487 Pretzels, soft, gluten free, coated or flavored
54420210 Multigrain chips (Sun Chips)
54420220 Snack mix, plain (Chex Mix)
54440010 Bagel chips

54440020 Cracker chips
58163310 Flavored rice mixture
58163330 Flavored rice mixture with cheese
58163360 Flavored rice, brown and wild
58163380 Flavored rice and pasta mixture
58163400 Flavored rice and pasta mixture, reduced sodium
58201015 Jelly sandwich, regular jelly, on wheat bread
58201025 Jelly sandwich, regular jelly, on whole wheat bread
58201045 Jelly sandwich, reduced sugar jelly, on wheat bread
58201055 Jelly sandwich, reduced sugar jelly, on whole wheat bread
58403050 Chicken or turkey noodle soup, cream of, home recipe, canned, or ready-to-serve
59003000 Meat substitute, cereal- and vegetable protein-based, fried
61101200 Grapefruit, canned
61122300 Orange, canned, NFS
61122320 Orange, canned, juice pack
61122330 Orange, canned, in syrup
62101050 Fruit mixture, dried
62101100 Apple, dried
62104100 Apricot, dried
62105000 Blueberries, dried
62106000 Cherries, dried
62107200 Banana chips
62108100 Currants, dried
62109100 Cranberries, dried
62113100 Fig, dried
62114050 Mango, dried
62114110 Papaya, dried
62116100 Peach, dried
62119100 Pear, dried
62120000 Persimmon, dried
62120100 Pineapple, dried
62122100 Prune, dried
62125100 Raisins
62126000 Tamarind, dried
63100110 Fruit, pickled
63101110 Applesauce, regular
63101120 Applesauce, unsweetened
63101150 Applesauce, flavored
63101310 Apple, baked
63103110 Apricot, canned
63111010 Cherries, maraschino
63115110 Cherries, canned
63119110 Fig, canned

63129030 Mango, canned
63129050 Mango, frozen
63133100 Papaya, canned
63135110 Peach, canned, NFS
63135140 Peach, canned, in syrup
63135170 Peach, canned, juice pack
63137110 Pear, canned, NFS
63137140 Pear, canned, in syrup
63141110 Pineapple, canned, NFS
63141140 Pineapple, canned, in syrup
63141170 Pineapple, canned, juice pack
63143110 Plum, canned
63203110 Blubberies, canned
63207110 Cranberry sauce
63223110 Strawberries, canned
63311110 Fruit cocktail, canned, NFS
63311140 Fruit cocktail, canned, in syrup
63311170 Fruit cocktail, canned, juice pack
63401060 Apple, candied
63409020 Chutney
63420105 Frozen fruit juice bar
63420205 Frozen fruit juice bar, no sugar added
63430150 Sorbet
71200010 Potato chips, NFS
71200100 Potato chips, plain
71200110 Potato chips, barbecue flavored
71200120 Potato chips, sour cream and onion flavored
71200130 Potato chips, cheese flavored
71200140 Potato chips, other flavored
71200200 Potato chips, ruffled, plain
71200210 Potato chips, ruffled, barbecue flavored
71200220 Potato chips, ruffled, sour cream and onion flavored
71200230 Potato chips, ruffled, cheese flavored
71200240 Potato chips, ruffled, other flavored
71200300 Potato chips, restructured, plain
71200310 Potato chips, restructured, flavored
71200400 Potato chips, baked, plain
71200410 Potato chips, baked, flavored
71201050 Potato chips, reduced fat
71201060 Potato chips, fat free
71201200 Potato chips, restructured, reduced fat, lightly salted
71201210 Potato chips, restructured, fat free
71202000 Potato chips, unsalted

71202100 Potato chips, reduced fat, unsalted
71202500 Potato chips, lightly salted
71202510 Potato chips, restructured, lightly salted
71203010 Potato chips, popped, plain
71203020 Potato chips, popped, flavored
71203030 Potato chips, popped, NFS
71220000 Vegetable chips
71801010 Potato soup, cream of, prepared with milk
71803010 Potato chowder
71905100 Plantain, cooked with butter or margarine
71905410 Plantain chips
71980200 Taro chips
72107228 Collards, fresh, cooked with butter or margarine
72107231 Collards, frozen, cooked with butter or margarine
72107234 Collards, canned, cooked with butter or margarine
72125218 Spinach, fresh, cooked with butter or margarine
72125225 Spinach, frozen, cooked with butter or margarine
72125228 Spinach, canned, cooked with butter or margarine
72201224 Broccoli, fresh, cooked with butter or margarine
72201227 Broccoli, frozen, cooked with butter or margarine
73102218 Carrots, fresh, cooked with butter or margarine
73102225 Carrots, frozen, cooked with butter or margarine
73102228 Carrots, canned, cooked with butter or margarine
73103022 Carrots, canned, reduced sodium, cooked with butter or margarine
73402022 Sweet potato, baked, peel eaten, made with butter
73402023 Sweet potato, baked, peel eaten, made with margarine
73403022 Sweet potato, baked, peel not eaten, made with butter
73403023 Sweet potato, baked, peel not eaten, made with margarine
73405022 Sweet potato, boiled, made with butter
73405023 Sweet potato, boiled, made with margarine
73406000 Sweet potato, candied
73410210 Sweet potato chips
73501000 Carrot soup, cream of, prepared with milk, home recipe, canned or ready-to-serve
73501010 Carrot with rice soup, cream of, prepared with milk, home recipe, canned or ready-to-serve
74205020 Tomato, green, pickled
74401010 Ketchup
74401110 Ketchup, reduced sodium
74402010 Tomato chili sauce
74402100 Salsa, NFS
74402110 Salsa, pico de gallo
74402150 Salsa, red, commercially-prepared
74402200 Salsa, red, homemade
74402210 Taco sauce

74402250 Enchilada sauce, red
74402260 Enchilada sauce, green
74402350 Salsa verde or salsa, green
74403000 Hot Thai sauce
74601010 Tomato soup, cream of, prepared with milk
75202028 Asparagus, fresh, cooked with butter or margarine
75202032 Asparagus, frozen, cooked with butter or margarine
75202035 Asparagus, canned, cooked with butter or margarine
75205045 Green beans, fresh, cooked with butter or margarine
75205048 Green beans, frozen, cooked with butter or margarine
75205051 Green beans, canned, cooked with butter or margarine
75205132 Green beans, canned, reduced sodium, cooked with butter or margarine
75211032 Cabbage, green, cooked with butter or margarine
75214028 Cauliflower, fresh, cooked with butter or margarine
75214031 Cauliflower, frozen, cooked with butter or margarine
75216135 Corn, fresh, cooked with butter or margarine
75216138 Corn, frozen, cooked with butter or margarine
75216142 Corn, canned, cooked with butter or margarine
75216322 Corn, canned, reduced sodium, cooked with butter or margarine
75219034 Mushrooms, fresh, cooked with butter or margarine
75224044 Green peas, fresh, cooked with butter or margarine
75224047 Green peas, frozen, cooked with butter or margarine
75224050 Green peas, canned, cooked with butter or margarine
75224132 Green peas, canned, reduced sodium, cooked with butter or margarine
75230000 Sauerkraut
75233028 Summer squash, yellow or green, fresh, cooked with butter or margarine
75233031 Summer squash, yellow or green, frozen, cooked with butter or margarine
75233034 Summer squash, yellow or green, canned, cooked with butter or margarine
75311028 Classic mixed vegetables, frozen, cooked with butter or margarine
75311031 Classic mixed vegetables, canned, cooked with butter or margarine
75311122 Classic mixed vegetables, canned, reduced sodium, cooked with butter or margarine
75500110 Green beans, pickled
75500210 Beets, pickled
75500510 Celery, pickled
75501010 Relish, corn
75502010 Cauliflower, pickled
75502500 Cabbage, fresh, pickled, Japanese style
75502510 Cabbage, red, pickled
75502520 Kimchi
75503010 Pickles, dill
75503020 Relish, pickle
75503040 Pickles, sweet
75503080 Eggplant, pickled

75503085 Ginger root, pickled
75505000 Mushrooms, pickled
75506010 Mustard
75506100 Honey mustard dip
75507000 Okra, pickled
75510000 Olives, NFS
75510010 Olives, green
75510020 Olives, black
75510030 Olives, stuffed
75510050 Olive tapenade
75511020 Peppers, pickled
75511040 Pepper, hot, pickled
75511100 Pickles, NFS
75511300 Pickles, fried
75512010 Radishes, pickled, Hawaiian style
75513010 Seaweed, pickled
75515100 Vegetables, pickled
75534030 Turnip, pickled
75535000 Zucchini, pickled
75600150 Soup, cream of, NFS
75601000 Asparagus soup, cream of, NS as to made with milk or water
75601010 Asparagus soup, cream of, prepared with milk
75601020 Asparagus soup, cream of, prepared with water
75603010 Celery soup, cream of, prepared with milk, home recipe, canned or ready-to-serve
75603020 Celery soup, cream of, prepared with water, home recipe, canned or ready-to-serve
75604010 Corn soup, cream of, prepared with milk
75604020 Corn soup, cream of, prepared with water
75605010 Leek soup, cream of, prepared with milk
75607010 Mushroom soup, cream of, prepared with milk
75607020 Mushroom soup, cream of, prepared with water
75607050 Mushroom soup, cream of, low sodium, prepared with water
75607060 Mushroom soup, cream of, NS as to made with milk or water
75607080 Mushroom with chicken soup, cream of, prepared with milk
75607090 Mushroom soup, cream of, canned, reduced sodium, NS as to made with milk or water
75607100 Mushroom soup, cream of, canned, reduced sodium, prepared with milk
75607140 Mushroom soup, cream of, canned, reduced sodium, prepared with water
75608010 Onion soup, cream of, prepared with milk
75611010 Vegetable soup, cream of, prepared with milk
75612010 Zucchini soup, cream of, prepared with milk
75657000 Vegetable broth, bouillon
81100500 Butter, NFS
81101000 Butter, stick
81101010 Butter, tub

81101520 Butter, light
81103090 Butter replacement, liquid
81104490 Butter-oil blend, NFS
81104500 Butter-oil blend, stick
81104510 Butter-oil blend, tub
81104550 Butter-oil blend, light
81106010 Butter replacement, powder
81200100 Oil or table fat, NFS
81203000 Shortening, NS as to vegetable or animal
81204000 Ghee, clarified butter
81322000 Honey butter
82101000 Vegetable oil, NFS
82101300 Almond oil
82101500 Coconut oil
82102000 Corn oil
82103000 Cottonseed oil
82103500 Flaxseed oil
82104000 Olive oil
82105000 Peanut oil
82105500 Canola oil
82106000 Safflower oil
82107000 Sesame oil
82108000 Soybean oil
82108500 Sunflower oil
82108700 Walnut oil
82109000 Wheat germ oil
91401000 Jelly, all flavors
91402000 Jam, preserve, all flavors
91403000 Fruit butter, all flavors
91404000 Marmalade, all flavors
91405000 Jelly, sugar free, all flavors
91405500 Jelly, reduced sugar, all flavors
91406000 Jam, preserve, marmalade, sugar free, all flavors
91406500 Jam, preserve, marmalade, sweetened with fruit juice concentrates, all flavors
91406600 Jam, preserve, marmalade, reduced sugar, all flavors
91407100 Guava paste
91601000 Italian Ice
91601010 Italian Ice, no sugar added
91610900 Popsicle, NFS
91611000 Popsicle
91611100 Popsicle, no sugar added
91612000 Freezer pop
91621000 Snow cone

91621050 Snow cone, no sugar added
91700010 Candy, NFS
91701020 Almonds, sugar-coated
91701030 Almonds, yogurt-covered
91702010 Butterscotch morsels
91703010 Caramel, chocolate-flavored roll
91703020 Caramel, flavor other than chocolate
91703030 Caramel, with nuts
91703080 Caramel, all flavors, sugar free
91703500 Nuts, carob-coated
91706100 Coconut candy, no chocolate covering
91706400 Coconut candy, Puerto Rican style
91707000 Fondant
91708000 Fruit peel, candied
91708010 Date candy
91708020 Soft fruit confections
91708030 Fruit leather and fruit snacks candy
91708040 Fun Fruits Creme Supremes
91708070 Tamarind candy
91708100 Fruit snacks candy, with high vitamin C
91708150 Yogurt covered fruit snacks candy, with added vitamin C
91708160 Yogurt covered fruit snacks candy rolls, with high vitamin C
91713050 Fudge, peanut butter
91713060 Fudge, peanut butter, with nuts
91713070 Fudge, vanilla
91713080 Fudge, vanilla, with nuts
91713090 Fudge, divinity
91713100 Fudge, brown sugar, penuche
91716010 Halvah, plain
91718000 Honey-combed hard candy with peanut butter
91718300 Ladoo, round ball, Asian-Indian dessert
91721000 Licorice
91723000 Marshmallow
91723020 Marshmallow, candy-coated
91726000 Nougat, plain
91728500 Sugared pecans, sugar and egg white coating
91731100 Peanuts, sugar-coated
91731150 Peanuts, yogurt covered
91732000 Peanut bar
91732100 Planters Peanut Bar
91733000 Peanut brittle
91734200 Reese's Pieces
91734500 Peanut butter morsels

91735000 Pralines
91736000 Pineapple candy, Puerto Rican style
91739600 Raisins, yogurt covered
91742010 Sesame Crunch, Sahadi
91745010 Gumdrops
91745020 Hard candy
91745040 Butterscotch hard candy
91745100 Skittles
91750000 Taffy
91760000 Toffee, plain
91760700 Wax candy, liquid filled
91770000 Dietetic or low calorie candy, NFS
91770010 Dietetic or low calorie gumdrops
91770020 Dietetic or low calorie hard candy
91770050 Dietetic or low calorie mints
92400000 Soft drink, NFS
92400100 Soft drink, NFS, diet
92410110 Carbonated water, sweetened
92410210 Carbonated water, unsweetened
92410250 Carbonated water, sweetened, with low-calorie or no-calorie sweetener
92410310 Soft drink, cola
92410315 Soft drink, cola, reduced sugar
92410320 Soft drink, cola, diet
92410340 Soft drink, cola, decaffeinated
92410350 Soft drink, cola, decaffeinated, diet
92410360 Soft drink, pepper type
92410370 Soft drink, pepper type, diet
92410390 Soft drink, pepper type, decaffeinated
92410400 Soft drink, pepper type, decaffeinated, diet
92410410 Soft drink, cream soda
92410420 Soft drink, cream soda, diet
92410510 Soft drink, fruit flavored, caffeine free
92410520 Soft drink, fruit flavored, diet, caffeine free
92410550 Soft drink, fruit flavored, caffeine containing
92410560 Soft drink, fruit flavored, caffeine containing, diet
92410610 Soft drink, ginger ale
92410620 Soft drink, ginger ale, diet
92410710 Soft drink, root beer
92410720 Soft drink, root beer, diet
92410810 Soft drink, chocolate flavored
92410820 Soft drink, chocolate flavored, diet
92411510 Soft drink, cola, fruit or vanilla flavored
92411520 Soft drink, cola, chocolate flavored

92411610 Soft drink, cola, fruit or vanilla flavored, diet
 92411620 Soft drink, cola, chocolate flavored, diet
 92513000 Slush frozen drink
 92513010 Slush frozen drink, no sugar added
 93101000 Beer
 93102000 Beer, light
 93102100 Beer, low carb
 93102200 Beer, light, higher alcohol
 93102300 Beer, higher alcohol
 93106000 Alcoholic malt beverage, sweetened
 93106010 Alcoholic malt beverage, higher alcohol, sweetened
 93106100 Alcoholic malt beverage
 93106500 Hard cider
 93401010 Wine, table, red
 93401020 Wine, table, white
 93401030 Wine, table, rose
 93401100 Wine, rice
 93403000 Wine, light
 93404000 Wine cooler
 93404550 Sangria, red
 93404560 Sangria, white
 93405000 Wine spritzer
 93406000 Glug
 93501000 Brandy
 93502000 Whiskey
 93502100 Scotch
 93503000 Gin
 93504000 Rum
 93504100 Rum cooler
 93505000 Vodka
 93505100 Tequila
 95101000 Nutritional drink or shake, ready-to-drink (Boost)
 95101010 Nutritional drink or shake, ready-to-drink (Boost Plus)
 95102000 Nutritional drink or shake, ready-to-drink (Carnation Instant Breakfast)
 95103000 Nutritional drink or shake, ready-to-drink (Ensure)
 95103010 Nutritional drink or shake, ready-to-drink (Ensure Plus)
 95104000 Nutritional drink or shake, ready-to-drink, sugar free (Glucerna)
 95105000 Nutritional drink or shake, ready-to-drink (Kellogg's Special K Protein)
 95106000 Nutritional drink or shake, ready-to-drink (Muscle Milk)
 95106010 Nutritional drink or shake, ready-to-drink, light (Muscle Milk)
 95110000 Nutritional drink or shake, ready-to-drink (Slim Fast)
 95110010 Nutritional drink or shake, ready-to-drink, sugar free (Slim Fast)
 95110020 Nutritional drink or shake, high protein, ready-to-drink (Slim Fast)

95120000 Nutritional drink or shake, ready-to-drink, NFS
 95120010 Nutritional drink or shake, high protein, ready-to-drink, NFS
 95120020 Nutritional drink or shake, high protein, light, ready-to-drink, NFS
 95120050 Nutritional drink or shake, liquid, soy-based
 95201000 Nutritional powder mix (Carnation Instant Breakfast)
 95201010 Nutritional powder mix, sugar free (Carnation Instant Breakfast)
 95201200 Nutritional powder mix (EAS Whey Protein Powder)
 95201300 Nutritional powder mix (EAS Soy Protein Powder)
 95201500 Nutritional powder mix, high protein (Herbalife)
 95201600 Nutritional powder mix (Isopure)
 95201700 Nutritional powder mix (Kellogg's Special K20 Protein Water)
 95202000 Nutritional powder mix (Muscle Milk)
 95202010 Nutritional powder mix, light (Muscle Milk)
 95210000 Nutritional powder mix (Slim Fast)
 95210010 Nutritional powder mix, sugar free (Slim Fast)
 95210020 Nutritional powder mix, high protein (Slim Fast)
 95220000 Nutritional powder mix, NFS
 95220010 Nutritional powder mix, high protein, NFS
 95230000 Nutritional powder mix, whey based, NFS
 95230010 Nutritional powder mix, protein, soy based, NFS
 95230020 Nutritional powder mix, protein, light, NFS
 95230030 Nutritional powder mix, protein, NFS
 99995130 Wheat bread as ingredient in sandwiches
 99995135 Wheat bun as ingredient in sandwiches

Soft Candy

Chocolate and Chocolate-Containing Products

[SFAE]= 0.3 g/100 g

13110470 Gelato, chocolate
 13200110 Pudding, chocolate, NFS
 13220120 Pudding, chocolate, made from dry mix
 13220220 Pudding, chocolate, made from dry mix, sugar free
 13230130 Pudding, chocolate, ready-to-eat
 13230140 Pudding, chocolate, ready-to-eat, sugar free
 42203100 Peanut butter and chocolate spread
 42501500 Trail mix with chocolate
 53100050 Cake batter, raw, chocolate
 53102800 Cake or cupcake, Black Forest
 53104600 Cheesecake, chocolate
 53105270 Cake or cupcake, chocolate, devil's food or fudge, with icing or filling
 53105275 Cake or cupcake, chocolate, devil's food or fudge, without icing or filling
 53105300 Cake or cupcake, German chocolate, with icing or filling

53105500 Cake, chocolate, with icing, diet
53108200 Snack cake, chocolate, with icing or filling
53108220 Snack cake, chocolate, with icing or filling, reduced fat and calories
53116270 Cake, pound, chocolate
53118300 Cake, sponge, chocolate
53204000 Cookie, brownie, NS as to icing
53204010 Cookie, brownie, without icing
53204100 Cookie, brownie, with icing or filling
53204840 Cookie, brownie, reduced fat, NS as to icing
53204860 Cookie, brownie, fat free, NS as to icing
53205260 Cookie, bar, with chocolate
53206500 Cookie, chocolate, made with rice cereal
53206550 Cookie, chocolate, made with oatmeal and coconut, no bake
53207000 Cookie, chocolate or fudge
53207020 Cookie, chocolate or fudge, reduced fat
53207050 Cookie, chocolate, with chocolate filling or coating, fat free
53208000 Cookie, marshmallow, chocolate-covered
53208200 Cookie, marshmallow pie, chocolate covered
53209005 Cookie, chocolate, with icing or coating
53209015 Cookie, chocolate sandwich
53209020 Cookie, chocolate sandwich, reduced fat
53209100 Cookie, chocolate, sandwich, with extra filling
53209500 Cookie, chocolate and vanilla sandwich
53210900 Cookie, graham cracker with chocolate and marshmallow
53211000 Cookie bar, with chocolate, nuts, and graham crackers
53233100 Cookie, oatmeal, with chocolate and peanut butter, no bake
53234100 Cookie, peanut butter, with chocolate
53235500 Cookie, with peanut butter filling, chocolate-coated
53247500 Cookie, vanilla with caramel, coconut, and chocolate coating
53342000 Pie, chocolate cream
53342070 Pie, chocolate cream, individual size or tart
53371000 Pie, chiffon, chocolate
53382000 Pie, chocolate-marshmallow
53387000 Pie, Toll house chocolate chip
53391150 Pie shell, chocolate wafer
53520120 Doughnut, chocolate
53714200 Cereal or granola bar, chocolate coated, NFS
53714210 Cereal or granola bar, with coconut, chocolate coated
53714220 Cereal or granola bar with nuts, chocolate coated
54102020 Graham crackers, chocolate covered
63401070 Fruit, chocolate covered
91301080 Chocolate syrup
91301081 Chocolate syrup, light

91304020 Topping, chocolate
91306030 Chocolate dip
91700500 M&M's Almond Chocolate Candies
91701010 Almonds, chocolate covered
91703040 Caramel candy, chocolate covered
91703050 Caramel with nuts and cereal, chocolate covered
91703060 Caramel with nuts, chocolate covered
91703070 Rolo
91703150 Toblerone, milk chocolate with honey and almond nougat
91703200 TWIX Caramel Cookie Bars
91703250 TWIX Chocolate Fudge Cookie Bars
91703300 TWIX Peanut Butter Cookie Bars
91703400 Whatchamacallit
91703600 Espresso coffee beans, chocolate-covered
91705010 Milk chocolate candy, plain
91705020 Milk chocolate candy, with cereal
91705030 Kit Kat
91705040 Chocolate, milk, with nuts, not almond or peanuts
91705050 Milk chocolate candy, with fruit and nuts
91705060 Milk chocolate candy, with almonds
91705070 Chocolate, milk, with peanuts
91705090 Chocolate candy with fondant and caramel
91705200 Chocolate, semi-sweet morsel
91705300 Chocolate, sweet or dark
91705310 Chocolate, sweet or dark, with almonds
91705400 Chocolate, white
91705410 Chocolate, white, with almonds
91705420 Chocolate, white, with cereal
91705430 Kit Kat White
91705500 Mexican chocolate, tablet
91706000 Coconut candy, chocolate covered
91707010 Fondant, chocolate covered
91709000 Gumdrops, chocolate covered
91713010 Fudge, chocolate, chocolate-coated
91713020 Fudge, chocolate, chocolate-coated, with nuts
91713030 Fudge, chocolate
91713040 Fudge, chocolate, with nuts
91715000 Fudge, caramel and nut, chocolate-coated candy
91715100 SNICKERS Bar
91715200 Baby Ruth
91715300 100 GRAND Bar
91716110 Halvah, chocolate covered
91718050 Honey-combed hard candy with peanut butter, chocolate covered

91718100 Butterfinger
 91718110 Butterfinger Crisp
 91718200 Chocolate-flavored sprinkles
 91723010 Marshmallow, chocolate covered
 91726110 Nougat, with caramel, chocolate covered
 91726130 MILKY WAY Bar
 91726140 MILKY WAY MIDNIGHT Bar
 91726150 MARS Almond Bar
 91726410 Nougat, chocolate covered
 91726420 3 MUSKETEERS Bar
 91726425 3 Musketeers Truffle Crisp Bar
 91727010 Nuts, chocolate covered, not almonds or peanuts
 91728000 Nut roll, fudge or nougat, caramel and nuts
 91731000 Peanuts, chocolate covered
 91731010 M&M's Peanut Chocolate Candies
 91731060 M&M's Peanut Butter Chocolate Candies
 91733200 Peanut Bar, chocolate covered candy
 91734000 Peanut butter, chocolate covered
 91734100 Reese's Peanut Butter Cup
 91734300 Reese's Sticks
 91734400 Reese's Fast Break
 91734450 Reese's Crispy Crunchy Bar
 91739010 Raisins, chocolate covered
 91746010 Sugar-coated chocolate discs
 91746100 M&M's Milk Chocolate Candies
 91746120 Sixlets
 91746150 Easter egg, candy coated chocolate
 91746200 M&M's Pretzel Chocolate Candies
 91760100 Toffee, chocolate covered
 91760200 Toffee, chocolate-coated, with nuts
 91760500 Truffles
 91770030 Dietetic or low calorie candy, chocolate covered

Mixed foods containing chocolate or chocolate-products

Adjusted for chocolate ingredient content of 5 to 53%

[SFAE] = 0.015to 0.159 g/100 g

51166200 Croissant, chocolate
 52302500 Muffin, chocolate chip
 52302600 Muffin, chocolate
 53206000 Cookie, chocolate chip
 53206020 Cookie, chocolate chip, made from home recipe or purchased at a bakery
 53206030 Cookie, chocolate chip, reduced fat
 53206100 Cookie, chocolate chip sandwich

53226550 Cookie, marshmallow, with rice cereal and chocolate chips
53233060 Cookie, oatmeal, with chocolate chips
53260030 Cookie, chocolate chip, sugar free
53430100 Crepe, chocolate filled
54403160 Popcorn, chocolate coated
54408200 Pretzels, hard, chocolate coated
54408210 Pretzels, hard, white chocolate coated
55100025 Pancakes, with chocolate, from frozen
55100060 Pancakes, with chocolate, from fast food / restaurant
55103100 Pancakes, with chocolate
55200050 Waffle, chocolate, from frozen
55200110 Waffle, chocolate, from fast food / restaurant
55203600 Waffle, chocolate



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July 21, 2023

Via Electronic Mail

Christopher Kampmeyer, M.S.
Division of Food Ingredients
Office of Food Additive Safety
Center for Food Safety and Applied Nutrition
U.S. Food and Drug Administration
5001 Campus Drive
College Park, MD 20740

Re: Response to FDA's Questions for GRAS Notice No. 001123

Dear Mr. Kampmeyer:

On behalf of Mitsubishi Chemical Corporation (Mitsubishi), we are writing in response to FDA's questions regarding GRAS Notice (GRN) No. 001123 for sucrose fatty acid esters (SFAE). For ease of reference, we reproduce each question below, followed by Mitsubishi's response.

CHEMISTRY QUESTIONS

- 1. Please provide a statement indicating that all analytical methods used to test the batches for conformance with the specifications are validated for their intended purpose.**

All methods used in Table 1 of GRN 1123 refer to "The Joint FAO/WHO Expert Committee on Food Additives (JECFA)" and "Japan's Standard Methods of Analysis in Food Safety Regulation." All methods were validated at each analysis facility to confirm that they are suitable for conformance with the specifications. Therefore, Mitsubishi confirms that all methods used in Table 1 of GRN 1123 are validated for the intended purpose. See **Attachment I** for additional confirmation.

- 2. In Table 1 (page 9), the notifier provided the specification limits for coliforms and yeast and mold as "negative." Please specify a sample size for each.**

The sample sizes for coliforms and yeast and mold are 2g and 0.1g, respectively.

- 3. In Table 2 (pages 9 and 10), Mitsubishi provided the results from the analyses of three non-consecutive batches of SFAE to demonstrate that the ingredient meets the proposed specifications.**
- a. Please specify the limit of detection (LOD) and/or limit of quantitation (LOQ) for the analytical method(s) used to test for lead, and arsenic, and provide the results for those parameters as the actual measured levels or state that the levels are below the specified LOQ or LOD. In addition, please propose specification limits for lead and arsenic that reflect the results of the batch analyses and are as low as possible.**

The LOQ for arsenic and lead are 0.1µg/g and 0.05µg/g, respectively. The analytical results for those parameters are provided in **Table 1** below.

Table 1: The analyses from three non-consecutive batches of SFAE for arsenic and lead.

Parameter	Specification	Lot 14192111	Lot 0X08241	Lot 2X212211
Arsenic (as As) (LOQ: 0.1µg/g)	NMT 0.7mg/kg	Not detected	Not detected	Not detected
Lead (LOQ: 0.05µg/g)	NMT 1mg/kg	Not detected	Not detected	Not detected

Mitsubishi agrees with the agency that when feasible it is important to minimize the presence of heavy metals. GRN 1123’s heavy metal specifications for arsenic and lead are NMT 0.75mg/kg and NMT 2mg/kg, respectively. These specifications were established to adhere to 21 CFR 172.859 “Sucrose fatty acid esters,” which requires arsenic and lead to be present at levels not more than 3ppm and 10ppm, respectively.

Although these heavy metals will not be used during the manufacturing process, Mitsubishi cannot exclude the possibility that heavy metals could be present in some raw materials. If Mitsubishi can obtain assurances from the raw material suppliers that the presence of heavy metals is lower than the product specification, Mitsubishi will consider lowering the specification. The major raw materials are sugar and methyl esters of fatty acids. The sugar specifications are set at NMT 1ppm for arsenic and NMT 10 ppm for total heavy metals (as Pb), are guaranteed by the suppliers. The methyl esters of fatty acids specifications are set at NMT 1ppm for arsenic and NMT 20ppm for total heavy metals (as Pb), are guaranteed by the suppliers. However, without further information, Mitsubishi does not feel comfortable lowering the SFAE specification for heavy metals.

Instead, Mitsubishi decided to lower the arsenic and lead specifications based on the SFAE product analyses. As provided in **Table 1**, Mitsubishi established the manufacturing specifications for arsenic (NMT 0.7mg/g) and lead (NMT 1mg/kg), in accordance with the Japanese and other countries' compendial specifications that are assured to Mitsubishi's customers. The LOQs for each parameter were established when Mitsubishi validated the analytical methods for the specifications, and based on this, the lowest technologically achievable levels are the manufacturing specifications: NMT 0.7mg/kg for arsenic and NMT 1mg/kg for lead. Accordingly, Mitsubishi lowered the arsenic and lead specifications to 0.7mg/kg and 1mg/kg, respectively. The updated specifications are included in **Table 2** below (highlighted in red).

Table 2: Revised Product Specifications for Mitsubishi's SFAE

Parameter	Specification	Method
Assay (Mono-, di-, and tri-esters)	NLT 80.0%	JECFA High performance liquid chromatography
Free sucrose	NMT 4.0%	JECFA Gas chromatography
Acid value	NMT 5.0	JECFA Titration method
Residue on ignition	NMT 1.5%	JECFA Sulfating ashing method
Arsenic (as As)	NMT 0.75mg/kg NMT 0.7mg/kg	Inductively coupled plasma mass spectrometry
Heavy metals (as Pb)	NMT 10mg/kg	Sodium sulfide calorimetric method
Lead	NMT 2mg/kg NMT 1mg/kg	Atomic absorption spectrometry
Cadmium	NMT 1mg/kg	Inductively coupled plasma mass spectrometry
Mercury	NMT 1mg/kg	Atomic absorption spectrometry
Methyl ethyl ketone	NMT 10mg/kg	JECFA Gas chromatography

Ethyl acetate	NMT 350mg/kg	JECFA Gas chromatography
Methanol	NMT 10mg/kg	JECFA Gas chromatography
Dimethylsulfoxide	NMT 2mg/kg	JECFA Gas chromatography
Isobutanol	NMT 10mg/kg	JECFA Gas chromatography
Moisture	NMT 4.0%	Karl Fischer's Method
Aerobic plate count	NMT 300cfu/g	Japan's Standard Methods of Analysis in Food Safety Regulation
Coliforms	Negative/2g	Japan's Standard Methods of Analysis in Food Safety Regulation
Yeast and mold	Negative/0.1g	Japan's Standard Methods of Analysis in Food Safety Regulation

- b. If 2 mg/kg and 0.75 mg/kg in Table 2 are the LOQs or LODs of the analytical methods used to test for lead and arsenic, respectively, we recommend that the notifier use a more sensitive analytical method to measure the levels of lead and arsenic in the ingredient.**

2mg/kg and 0.75mg/kg are the upper limit for lead and arsenic. LOQs of the analytical methods used to test for lead and arsenic are 0.05µg/g and 0.1µg/g, respectively. The current method is considered sufficiently sensitive.

- c. If a new method is employed, please specify the method, state that the method is validated for its purpose, and provide the results from the analyses of a minimum of three non-consecutive batches using the new method to demonstrate that SFAE meets the proposed limits for lead and arsenic.**

This question is not applicable.

- d. There are more sensitive methods to analyze for heavy metals. “Heavy metals (as Pb)” is an outdated specification, and it is more appropriate to include specifications for the individual heavy metals that are relevant for a given ingredient. Please remove the specification for “heavy metals (as Pb)” and in addition to lead and arsenic, please include specifications for cadmium and mercury.**

Mitsubishi has agreed to remove the specifications for “heavy metals (as Pb)” and include specifications for cadmium and mercury. A revised specifications table, **Table 2**, is included as part of the response to Chemistry Question 3.a.

- e. In addition, please provide a revised specifications table, the results from the analyses of three non-consecutive batches of SFAE to demonstrate that the ingredient meets the proposed specifications for cadmium and mercury, the method used to generate those results, and state that the method is validated for its purpose.**

Similar to arsenic and lead, Mitsubishi cannot confirm that cadmium and mercury are absent from the raw materials. Instead, Mitsubishi established cadmium and mercury specifications of NMT 1mg/kg based on compendial specifications from other countries and the SFAE analytical results. The analytical results for cadmium and mercury are provided in **Table 3** below. Updated specifications are included in the response to Chemistry Question 3.a., **Table 2** (highlighted in red).

Table 3: The analyses from three non-consecutive batches of SFAE for cadmium and mercury

Parameter	Specification	Lot 14192111	Lot 0X08241	Lot 2X212211
Cadmium (LOQ: 0.05µg/g)	NMT 1mg/kg	Not detected	Not detected	Not detected
Mercury (LOQ: 0.01µg/g)	NMT 1mg/kg	Not detected	Not detected	Not detected

- 4. Mitsubishi provided the food categories and the corresponding use levels in Table 4 (pages 11 and 12). In addition, Mitsubishi also provided the representative National Health and Nutrition Examination Survey (NHANES) food codes and the corresponding use levels for each food category in Appendix D (Appendix I).**

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However, we note that some food categories are presented with a “broad range” of use levels, especially for the mixed foods (i.e., foods containing white rolls, white bread, sauces, and frosting). Further, we note that the use levels for certain food codes representing foods in dried form are adjusted based on reconstitution factors, and the use levels for other food categories (fat soluble colors, flavors, and nutraceuticals) are adjusted based on the information on existing use levels (Appendix C in Appendix I). Mitsubishi did not provide those factors used to adjust use levels.

In order to validate Mitsubishi’s dietary exposure estimate, please provide an applied adjustment factor and resulting use level for each NHANES food code included in Appendix D (Appendix 1). We suggest that the notifier provide this information in a spreadsheet.

Included as **Attachment II**, please find a copy of the NHANES food codes with adjustment factors, where applicable. The use levels and adjustment factors were selected based on the information available in Appendix C of GRAS Notice 514 (pages 75 to 119) in order to align with the existing approved uses of sucrose fatty acid esters or developed for composite foods/mixtures based on data provided in the Food and Nutrient Database for Dietary Studies (FNDDS) 2017-2018. Similarly, in the case of “fat-soluble colors, flavors, and nutraceutical substances,” the use levels were selected based on the information in Appendices D and E of GRAS Notice 514 (pages 120 to 145).

TOXICOLOGY QUESTIONS

Background: In GRN 000514, children aged 3-11 years had a 90th percentile dietary exposure of 32.7 mg/kg bw/d. Comparatively, in GRN 001123, children aged 2-5 years and 6-11 years had 90th percentile dietary exposures of 36.8 and 33.4 mg/kg bw/d, respectively.

Because of different age groupings of younger consumers, it is difficult to ascertain whether there has been any increase in dietary exposure in comparable age groups.

Since the safety evaluation of GRN 000514 in 2014, some new information has become available. In 2018 and 2023, EFSA published its opinion on the dietary exposure assessment and re-evaluation of safety for sucrose fatty acid esters largely based on study reports that were submitted in support of the new evaluations, but not available in published literature (for details, see January 5, 2018, and April 21, 2023 publications in the EFSA journal). The GRAS final rule of 2016 interprets the opinions of JECFA and EFSA as corroborative and not pivotal because the pivotal safety data that form the basis of their opinion are not publicly available. In the GRAS program, the pivotal safety data should be publicly available.

Question: With this background, please comment on the following:

- 1. Given the available evidence at this time, please briefly discuss the potential limit of safe exposure for children (2-11 years) to sucrose fatty acid esters and explain the basis for your opinion with generally available references and knowledge, or studies. The toxicological relevance of this question becomes apparent when one considers the dietary exposure (as mg/kg bw/d) in the context of the metabolic capacity, organ weight and function, blood volume, etc. of children (11 years and younger) compared to adults.**

To compare with the same age grouping of younger consumers (i.e., children aged 3-11 years) per GRN 000514, the exposure of SFAE for children of 3-11 years for the current GRAS notice (GRN 001123) is estimated (see Attachment III). The 90th percentile dietary intake for consumer-only is 33.6 mg/kg bw/day from the proposed and existing uses, which is slightly increased from 32.7 mg/kg bw/day estimated by GRN 000514. As such, for the same grouping of younger consumers, the proposed use of SFAE in chocolate and chocolate-containing products only results in a slight increase of 2.7% of the overall exposure to SFAE at the 90th percentile. We also note that the increase is only 0.9% when expressed on an intake per day basis (855 mg/day per GRN 001123 and 847 mg/day per GRN 000514) for children of 3-11 years. It is not expected that such a small increase of SFAE would cause any adverse effects in children (or the general population).

In addition, as we know, the NHANES consumption estimates are extremely conservative and very likely overestimates of actual intakes of SFAE from the proposed and existing uses. Any reported intake of a food corresponding to the proposed and existing use categories was assumed to contain added SFAE. All foods were assumed to contain the maximum proposed concentration of SFAE per serving; while not all products may contain the maximum proposed use levels. In addition, the cumulative exposure assumes the consumer would consume all proposed and existing food categories containing added SFAE daily, while consumers, especially children, may consume only a subset of these foods.

As part of the discussion with FDA at a pre-submission meeting on April 27, 2022, an FDA publication by Shah, et al., 2017 evaluated dietary exposures for the safety assessment of seven emulsifiers including sucrose esters commonly added to foods in the United States and implications for safety.¹ The seven emulsifiers were carboxymethylcellulose (CMC), polysorbate 80 (P80), lecithin, mono- and diglycerides (MDGs), stearyl lactylates, sucrose esters, and polyglycerol polyricinoleate. Using maximum-use levels obtained from publicly available sources, FDA estimated dietary exposures to these emulsifiers for the US population (aged 2 years and older) for two time periods (1999–2002 and 2003–2010) using 1- and 2-day food-consumption data from the National Health and Nutrition Examination Survey, and 10–14-day food-consumption data from NPD Group,

¹ Shah R, Kolanos R, DiNovi MJ, Mattia A, Kaneko KJ. Dietary exposures for the safety assessment of seven emulsifiers commonly added to foods in the United States and implications for safety. *Food Addit Contam Part A Chem Anal Control Expo Risk Assess.* 2017 Jun;34(6):905-917. doi: 10.1080/19440049.2017.1311420. Epub 2017 Apr 19. PMID: 28346062.

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Inc.'s National Eating Trends – Nutrient Intake Database. FDA reviewed available safety information such as ADIs established by JECFA and dietary exposure estimates for these seven emulsifiers, and concluded that it did not raise safety concerns at the current specified levels of use. Additionally, by examining two time periods (1999–2002, 2003–10), FDA concluded that there is no evidence that exposure levels to emulsifiers have substantially increased.

The FDA publication described that in the United States, two surveys are used for these analyses that include food consumption data collected as dietary recall from a nationally representative sample of the US population: the National Health and Nutrition Examination Survey (NHANES) is a publicly available 1- or 2-day food-consumption database, and The NPD Group, Inc.'s National Eating Trends – Nutrient Intake Database (NPD NET-NID) is a proprietary food-consumption database collected over a longer period (10–14 days). The dietary exposure estimate obtained by the longer survey length captures eating occasions more accurately and therefore, is more representative of chronic dietary exposure. Table 1 and Table 2 of the FDA publication compared the dietary exposure estimates for emulsifiers calculated using 1- and 2-day food-consumption data from NHANES and 10–14-day food-consumption data from NPD NET-NID demonstrated. The data demonstrated that the mean and the 90th percentile dietary exposure estimates were higher in 1- and 2-day than 10-14-day survey, suggesting that NHANES is an overestimate of the chronic dietary exposure.

The FDA publication reported that “because the dietary exposure to emulsifiers has not increased over the 10-year period covered by the current analyses, even for those substances that do not have a numerical ADI, there is no reason to suspect that the dietary exposure is at a level that should cause a safety concern.” By the same token, as there is no significant difference of dietary exposure in GRN 001123 from GRN 000514, there is no reason to suspect that the proposed use of SFAE in chocolate and chocolate-containing products would result in the dietary exposure at a level that should cause a safety concern.

Metabolic studies *in vitro* and in rats, dogs, and humans complete the metabolic picture of the series of SFAE from the monoester to the octaester. These studies include published studies, corroborated with unpublished ones, and have been reviewed by regulatory and scientific review bodies such as JECFA, FDA, and EFSA over the years. In short, the intact esters are not absorbed as such, with the possible exception of a very small amount of mono-ester. Instead, the esters are hydrolyzed to sucrose and fatty acids by pancreatic lipase and are absorbed as such only following hydrolysis. As the degree of esterification increases, from mono- to octa-, the esters are less easily hydrolyzed, and the extent to which they are absorbed decreases to essentially zero in the case of the octa-ester.

To name a few published studies, Berry and Turner, 1960 investigated the enzymatic hydrolysis and tissue oxidation of fatty acid esters of sucrose.² In this study, various preparations of

² Berry JF and Turner DA (1960) The enzyme hydrolysis and tissue oxidation of fatty acids esters of sucrose. *J Oil Chem. Soc.* 37:302-305

SFAE were hydrolyzed by wheat germ or pancreatic lipase, pancreatin, pancreatic juice, α -amylase, invertase, or liver homogenates to yield sucrose and free fatty acids as products. The results showed that rat liver homogenates hydrolyzed the ester bond almost completely in 60 minutes without attacking the glucosidic linkage, alpha-amylase, lipase and dog pancreatin were similarly effective.

Shigeoka, et al., 1984 investigated the metabolism in rats of sucrose esters of stearic acid and palmitic acid *in vivo* and *in vitro* using esters labelled with ^{14}C at the sucrose or fatty-acid moiety.³ In excretion studies, the ratio of expired radioactivity to absorbed radioactivity after oral administration of the sucrose esters labelled at the sucrose moiety was similar to that after the administration of [^{14}C]sucrose. A similar correlation between the ester labelled at the fatty-acid moiety and the free [^{14}C]fatty acid was also observed. No intact sucrose ester was detected in the urine.

Studies *in vitro* using everted intestinal sacs showed that there was virtually no transport of ^{14}C -labelled sucrose esters from the mucosal to the serosal solution through the intestinal tissues, and that the enzymes in the intestinal mucosa played a more important role in the hydrolysis of sucrose esters than did those in the digestive fluid. In studies of intestinal absorption through the mesenteric lymphatic system, during the 24 hr. after ingestion 1.8% of the administered radioactivity was recovered in the lymph after dosing with [U- ^{14}C]sucrose monostearate whereas 20% was recovered in the lymph after dosing with sucrose [1- ^{14}C]monostearate. This difference in levels of recovery of administered radioactivity indicated that sucrose monostearate was absorbed only after hydrolysis. No intact ester was detected in the lymph or in the portal or femoral blood. The authors concluded that the results of all of these experiments showed that the sucrose esters were hydrolyzed to sucrose and fatty acids prior to intestinal absorption.

Noker, et al., 1997 studied metabolism of ^{14}C -labelled sucrose esters of stearic acid in rats.⁴ Rats were dosed by oral gavage (250 mg/kg) with compounds containing sucrose esterified in four, six or eight positions with stearic acid. For each compound, rats excreted greater than 95% of the dose in the feces. The extent of absorption and metabolism of radioactivity was inversely related to the degree of esterification. These results are consistent with limited hydrolysis of the sucrose esters, presumably to sucrose and fatty acids, prior to intestinal absorption.

Daniel, et al., 1979 studied the metabolism of beef tallow sucrose esters in rat and man.⁵ The results suggested that the sucrose tallow esters were rapidly hydrolyzed and absorbed from the

³ Shigeoka T, Izawa O, Kitazawa K, Yamauchi F, Murata T. Studies on the metabolic fate of sucrose esters in rats. *Food Chem Toxicol.* 1984 Jun;22(6):409-14. doi: 10.1016/0278-6915(84)90321-1. PMID: 6539729.

⁴ Noker PE, Lin TH, Hill DL, Shigeoka T. Metabolism of ^{14}C -labelled sucrose esters of stearic acid in rats. *Food Chem Toxicol.* 1997 Jun;35(6):589-95. doi: 10.1016/s0278-6915(97)00012-4. PMID: 9225017.

⁵ Daniel JW, Marshall CJ, Jones HF, Snodin DJ. The metabolism of beef tallow sucrose esters in rat and man. *Food Cosmet Toxicol.* 1979 Feb;17(1):19-21. doi: 10.1016/0015-6264(79)90153-6. PMID: 437607.

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gastrointestinal tract in rats and the human volunteers. There was no evidence of progressive accumulation of sucrose tallowate in either the live or adipose tissues.

JECFA reviewed these studies, among others, and concluded that it was apparent that the sucrose esters were hydrolyzed in the mucosal epithelium cells before intestinal absorption in the rat.⁶ This observation was also supported by the *in vitro* studies. Studies with humans fed sucrose tallowates, also indicated that they were absorbed from the GI tract. There was no evidence of progressive accumulation of the esters or metabolites, in either experimental animals or man.

Major metabolic pathway of SFAE is hydrolyzation to sucrose and fatty acids by pancreatic lipase. It is reported that pancreatic enzymes are well-developed at 2 years of age.⁷ Also, duodenal lipase activity in child (3 - 10 years) is considered to be the same level as adult.⁸ Other factors influencing pharmacokinetics are absorption, distribution, and excretion. Gastric pH, serum protein level and glomerular filtration rate are key parameters for considering capability of absorption, distribution, and excretion, respectively. It is reported that each parameter reaches adult levels by age of 1 to 3 years.^{9 10}

As such, it is expected that children (11 years and younger) would metabolize these substances comparably with adults and the experiential animals. There is no reason to speculate, nor any evidence to demonstrate, that children and adults (and experiential animals) would metabolize SFAE any differently.

In conclusion, it is conceivable, as discussed at a pre-submission meeting with FDA on April 27, 2022, that a slight increase of the exposure to SFAE from the proposed use in chocolate and chocolate-containing products is not expected to result in any adverse effects in children (or general population). Published metabolic studies, corroborated with unpublished ones, reviewed by regulatory and scientific review bodies such as JECFA, FDA, and EFSA, as well as key parameters for

⁶ <https://inchem.org/documents/jecfa/jecmono/v15je09.htm>

⁷ Margit H (1995) Lipid Metabolism in Pediatric nutrition. *Pediatric Clinics of North America* 42(4): 839-859

⁸ Kristal DA, Mieke DD, Sophie S, Sandra S, Tanneke W, Yvo G and Gigi VW (2001) 13C mixed triglyceride breath test: A noninvasive method to assess lipase activity in children. *J. Pediatr Gastroenterol Nutr* 32(5): 579-585

⁹ Tsuyoshi Y (2009) Essentials for starting a pediatric clinical study (1): Pharmacokinetics in children. *J. Toxicol. Sci.* 34: SP307-312

¹⁰ Eva E, Raul P, Alfredo H, Pilar T, Marta A and Jose TR (2011) Factors and mechanisms for pharmacokinetic differences between pediatric population and adults. *Pharmaceutics* 3: 53-72

considering capability of absorption, distribution, and excretion for children and adults, support the comparable metabolism of SFAE in children and adults (and the experimental animals).

- 2. EFSA, JECFA, and the pivotal toxicological study discussed in the GRAS notice determined 40 mg, 30 mg, and ~20 mg (per kg bw per day), respectively, as the ADI. Thus, there seems to be a lack of consensus among experts on the limit of safe exposure to sucrose fatty acid esters. Please consider this information while commenting on the presumed limit of safe exposure in the younger age group.**

Both EFSA and JECFA reviewed the same pivotal study for the determination of the Acceptable Daily Intake (ADI). The pivotal study is a combined chronic oral toxicity and carcinogenicity study in rats, which was published in a peer-reviewed journal in 2002.¹¹ As summarized in GRN 001123, the NOAEL from the study was the high dose tested, namely, 5% SFAE (S-570) in the diet, equivalent to 1970 mg/kg bw/day in male and 2440 mg/kg bw/day in female rats. The NOAEL was rounded to 2000 mg/kg bw/day.

EFSA 2004 considered all the toxicity data with an overall NOAEL of 2000 mg/kg bw/day from the chronic oral toxicity and carcinogenicity study and derived a group ADI of 40 mg/kg bw/day for sucrose esters of fatty acids (E 473) and sucroglycerides (E 474) by applying a safety factor of 50, because these compounds are hydrolyzed to normal dietary constituents following ingestion.¹²

In the FDA 2017 publication, ADI reported by JECFA, 30 mg/kg bw/day, was used as the reference value of the safety assessment. This value was derived from a human tolerance study and based on laxative effects at doses exceeding 30 mg/kg bw/day. The daily dose of substances which cause laxative effects that may be ingested before breaching the laxative threshold depends on the frequency of its ingestion.¹³ Effect of increasing occasions of ingestion on laxative effect is less than increasing a single dose of the same total amount.¹⁴ As described above, there is no significant difference of the dietary exposure between GRN 000514 in 2014 and GRN 001123 in 2023, or just slight increase, if any. Also, even if there is slight increase, this is increasing occasions, not increasing

¹¹ Takeda K, Flood M. Chronic toxicity and carcinogenicity of sucrose fatty acid esters in Fischer 344/DuCrj rats. *Reg Toxicol Pharmacol* 35:157-164, 2002.

¹² EFSA (European Food Safety Authority), 2004. Opinion of the Scientific Panel on food additives, flavourings, processing aids and material in contact with food (AFC) on sucrose esters fatty acids, E 473 and glucoglycerides, E 474 based on a request from the Commission related to sucrose esters of fatty acids (E 473). *EFSA Journal* 2004;2(10):106, 24 pp. <https://doi.org/10.2903/j.efsa.2004.106>

¹³ Geoffrey L (2001) Tolerance of low-digestible carbohydrates: a general view. *British Journal of Nutrition* 85, Suppl.1: S7-16.

¹⁴ Id.



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a single dose of the total amount. Therefore, in terms of safety concern on laxative effect, it is unlikely that there are any differences between GRN 000514, FDA's publication, and GRN 001123.

The mean and the 90th percentile exposure of SFAE for children of 3-11 years is estimated to be 17.6 and 33.6 mg/kg bw/day from the proposed and existing uses and it is lower than EFSA's ADI of 40 mg/kg bw/day. Although, at the 90th percentile, the EDI exceeds JECFA's ADI of 30 mg/kg bw/day, it does not imply that there is necessarily a safety concern, because there has been no significant changes of the exposure of SFAE and update to the scientific evidence of the safety of SFAE since GRN 00514 and FDA's publication. As such, we believe that a slight increase of the exposure to SFAE from the proposed use in chocolate and chocolate-containing products is not expected to result in any adverse effects in children (or general population).

REGULATORY QUESTIONS

- 1. Please clarify whether sucrose fatty acid esters will impart color to food, intentionally or not. If sucrose fatty acid esters are expected to impart color, please clarify whether any imparted color is important. Material that otherwise meets the definition of a color additive can be exempt from that definition on the basis that it is used or intended to be used solely for a purpose or purposes other than coloring, as long as the material is used in a way that any color imparted is clearly unimportant in so far as the appearance, value, marketability, or consumer acceptability is concerned.**

Mitsubishi confirms that sucrose fatty acid esters will not impart color to food.

* * *

Mitsubishi appreciates the Agency's review of GRAS Notice 1123. Please let us know if you have any other questions or if you need any additional information.

Cordially yours,

Frederick A. Stearns

Attachments:

I. Analytical Methods Statement

II. NHANES 2017-2018 SFAE Adjustment Factors

III. NHANES 2017-18 SFAE Results Summary Age 2-11 & 3-11



MITSUBISHI CHEMICAL CORPORATION
Palace Building, 1-1, Marunouchi 1-chome,
Chiyoda-ku, Tokyo 100-8251, Japan

July 14, 2023

To whom it may concern:

We, Mitsubishi Chemical Corporation, hereby confirm that all methods used for specifications of sucrose fatty acid esters are validated for the intended purposes.

Sincerely yours,

A solid grey rectangular box used to redact the signature of the sender.

Tetsuya Fukazawa
Group Manager
Foods Quality Assurance Group
Food/Healthcare Department

Food Group	Food Code	Main food description	Use level (g/100 "Adjustment" Notes		Please note that adjustment factor of "1" indicates that an adjustment factor was not applied.
01 Mixed Drinks, Cocktails, and Dessert Drinks	93201000	Cordial or liqueur	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93202000	Cordial or liqueur, coffee flavored	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301000	Cocktail, NFS	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301010	Alexander	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301020	Bacardi cocktail	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301030	Bloody Mary	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301031	Canadian Club and soda	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301032	Cape Cod	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301040	Daiquiri	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301045	Gelatin shot, alcoholic	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301050	Gimlet	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301060	Gin and Tonic	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301070	Grasshopper	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301075	Greyhound	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301080	High ball	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301083	Jagerbomb	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301085	Kamikaze	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301090	Manhattan	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301100	Margarita	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301110	Martini	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301111	Martini, flavored	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301115	Mimosa	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301120	Mint julep	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301125	Mojito	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301130	Old fashioned	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301132	Orange Blossom	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301135	Rob Roy	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301136	Rusty Nail	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301139	Salty Dog	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301140	Screwdriver	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301141	Seabreeze	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301142	Seven and Seven	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301150	Tom Collins	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301160	Whiskey sour	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301170	Whiskey and soda	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301181	Whiskey and water	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301182	Whiskey and cola	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301183	Whiskey and diet cola	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301184	Whiskey and ginger ale	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301190	Rum and cola	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301191	Rum and diet cola	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301200	Pina Colada	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301205	Brandy and cola	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301211	Vodka and soda	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301213	Vodka and lemonade	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301214	Vodka and cola	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301215	Vodka and diet cola	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301216	Vodka and energy drink	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301217	Vodka and water	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301218	Vodka and tonic	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301230	Sloe gin fizz	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301240	Black Russian	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301250	White Russian	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301270	Fruit punch, alcoholic	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301275	Champagne punch	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301280	Singapore Sling	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301290	Stinger	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301310	Mai Tai	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301320	Tequila Sunrise	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301330	Gin Rickey	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301340	Golden Cadillac	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301360	Long Island iced tea	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301370	Fuzzy Navel	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301400	Irish Coffee	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301450	Liqueur with cream	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301500	Frozen daiquiri	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301510	Frozen margarita	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301550	Eggnog, alcoholic	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93301600	Gin fizz	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93302000	Rum, hot buttered	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93302100	Zombie	0.2	1	
01 Mixed Drinks, Cocktails, and Dessert Drinks	93402000	Wine, dessert, sweet	0.2	1	

In GRN 514, it was previously assumed that biscuits in "mixed food" codes represented 30% content of the food code. Therefore, an adjustment factor of 0.3 was applied.

02 Biscuit Mixes	27515080	Steak sandwich, plain, on biscuit	1	0.3
02 Biscuit Mixes	27520170	Bacon on biscuit	1	0.3
02 Biscuit Mixes	27520250	Ham on biscuit	1	0.3
02 Biscuit Mixes	27540145	Chicken fillet biscuit, from fast food	1	0.3
02 Biscuit Mixes	27560650	Sausage on biscuit	1	0.3
02 Biscuit Mixes	27560705	Sausage balls, made with biscuit mix and cheese	1	0.3
02 Biscuit Mixes	32202020	Egg, cheese, and ham on biscuit	1	0.3
02 Biscuit Mixes	32202050	Egg, cheese, and sausage on biscuit	1	0.3
02 Biscuit Mixes	32202060	Egg and sausage on biscuit	1	0.3
02 Biscuit Mixes	32202070	Egg, cheese, and bacon on biscuit	1	0.3
02 Biscuit Mixes	32202090	Egg and bacon on biscuit	1	0.3
02 Biscuit Mixes	32202110	Egg and ham on biscuit	1	0.3
02 Biscuit Mixes	32202130	Egg and steak on biscuit	1	0.3
02 Biscuit Mixes	32202200	Egg and cheese on biscuit	1	0.3
02 Biscuit Mixes	52101000	Biscuit, NFS	1	1
02 Biscuit Mixes	52102040	Biscuit, from refrigerated dough	1	1
02 Biscuit Mixes	52103000	Biscuit, from fast food / restaurant	1	1
02 Biscuit Mixes	52104010	Biscuit, home recipe	1	1
02 Biscuit Mixes	52104040	Biscuit, wheat	1	1
02 Biscuit Mixes	52104100	Biscuit, cheese	1	1
02 Biscuit Mixes	52104200	Biscuit with fruit	1	1
02 Biscuit Mixes	58128000	Biscuit with gravy	1	1
03 Cakes	51165000	Coffee cake, yeast type	0.5	1
03 Cakes	53100070	Cake batter, raw, not chocolate	0.5	1
03 Cakes	53100100	Cake or cupcake, NS as to type	0.5	1
03 Cakes	53101100	Cake, angel food, without icing or filling	0.5	1
03 Cakes	53101200	Cake, angel food, with icing or filling	0.5	1
03 Cakes	53101250	Cake, angel food, with fruit and icing or filling	0.5	1
03 Cakes	53102100	Cake or cupcake, applesauce, without icing or filling	0.5	1
03 Cakes	53102200	Cake or cupcake, applesauce, with icing or filling	0.5	1
03 Cakes	53102600	Cake or cupcake, banana, without icing or filling	0.5	1
03 Cakes	53102700	Cake or cupcake, banana, with icing or filling	0.5	1
03 Cakes	53103000	Cake, Boston cream pie	0.5	1
03 Cakes	53104100	Cake or cupcake, carrot, without icing or filling	0.5	1
03 Cakes	53104260	Cake or cupcake, carrot, with icing or filling	0.5	1
03 Cakes	53104300	Cake, carrot, diet	0.5	1
03 Cakes	53104400	Cake or cupcake, coconut, with icing or filling	0.5	1
03 Cakes	53104500	Cheesecake	0.5	1
03 Cakes	53104550	Cheesecake with fruit	0.5	1
03 Cakes	53106500	Cake, cream, without icing or topping	0.5	1
03 Cakes	53109200	Snack cake, not chocolate, with icing or filling	0.5	1
03 Cakes	53109220	Snack cake, not chocolate, with icing or filling, reduced fat and calories	0.5	1
03 Cakes	53109300	Cake, Dobos Torte	0.5	1
03 Cakes	53111000	Cake or cupcake, gingerbread	0.5	1
03 Cakes	53112100	Ice cream cake	0.5	1
03 Cakes	53113000	Cake, jelly roll	0.5	1
03 Cakes	53114000	Cake or cupcake, lemon, without icing or filling	0.5	1
03 Cakes	53114100	Cake or cupcake, lemon, with icing or filling	0.5	1
03 Cakes	53115100	Cake or cupcake, marble, without icing or filling	0.5	1
03 Cakes	53115200	Cake or cupcake, marble, with icing or filling	0.5	1
03 Cakes	53115310	Cake or cupcake, nut, without icing or filling	0.5	1
03 Cakes	53115320	Cake or cupcake, nut, with icing or filling	0.5	1
03 Cakes	53115410	Cake or cupcake, oatmeal	0.5	1
03 Cakes	53115450	Cake or cupcake, peanut butter	0.5	1
03 Cakes	53116000	Cake, pound, without icing or filling	0.5	1
03 Cakes	53116020	Cake, pound, with icing or filling	0.5	1
03 Cakes	53116350	Cake, pound, Puerto Rican style	0.5	1
03 Cakes	53116390	Cake, pound, reduced fat, cholesterol free	0.5	1
03 Cakes	53116500	Cake or cupcake, pumpkin, without icing or filling	0.5	1
03 Cakes	53116510	Cake or cupcake, pumpkin, with icing or filling	0.5	1
03 Cakes	53116550	Cake or cupcake, raisin-nut	0.5	1
03 Cakes	53116570	Cake, Ravani	0.5	1
03 Cakes	53116600	Cake, rice flour, without icing or filling	0.5	1
03 Cakes	53116650	Cake, Quezadilla, El Salvadorian style	0.5	1
03 Cakes	53117100	Cake or cupcake, spice, without icing or filling	0.5	1
03 Cakes	53117200	Cake or cupcake, spice, with icing or filling	0.5	1
03 Cakes	53118100	Cake, sponge, without icing or filling	0.5	1
03 Cakes	53118200	Cake, sponge, with icing or filling	0.5	1
03 Cakes	53118410	Rum cake, without icing	0.5	1
03 Cakes	53118500	Cake, torte	0.5	1
03 Cakes	53118550	Cake, tres leche	0.5	1
03 Cakes	53119000	Cake, pineapple, upside down	0.5	1
03 Cakes	53120270	Cake or cupcake, white, with icing or filling	0.5	1
03 Cakes	53120275	Cake or cupcake, white, without icing or filling	0.5	1
03 Cakes	53121270	Cake or cupcake, yellow, with icing or filling	0.5	1

03 Cakes	53121275	Cake or cupcake, yellow, without icing or filling	0.5	1
03 Cakes	53122070	Cake, shortcake, biscuit type, with whipped cream and fruit	0.5	1
03 Cakes	53122080	Cake, shortcake, biscuit type, with fruit	0.5	1
03 Cakes	53123070	Cake, shortcake, sponge type, with whipped cream and fruit	0.5	1
03 Cakes	53123080	Cake, shortcake, sponge type, with fruit	0.5	1
03 Cakes	53123500	Cake, shortcake, with whipped topping and fruit, diet	0.5	1
03 Cakes	53124110	Cake or cupcake, zucchini	0.5	1
03 Cakes	53610100	Coffee cake, crumb or quick-bread type	0.5	1
03 Cakes	53610170	Coffee cake, crumb or quick-bread type, with fruit	0.5	1
03 Cakes	53610200	Coffee cake, crumb or quick-bread type, cheese-filled	0.5	1
04 White Breads	14640000	Cheese sandwich, NFS	0.55	0.582
04 White Breads	14640002	Cheese sandwich, American cheese, on white bread, no spread	0.55	0.37
04 White Breads	14640008	Cheese sandwich, Cheddar cheese, on white bread, no spread	0.55	0.37
04 White Breads	14640014	Cheese sandwich, reduced fat American cheese, on white bread, no spread	0.55	0.37
04 White Breads	14640020	Cheese sandwich, reduced fat Cheddar cheese, on white bread, no spread	0.55	0.37
04 White Breads	14640026	Cheese sandwich, American cheese, on white bread, with mayonnaise	0.55	0.37
04 White Breads	14640032	Cheese sandwich, Cheddar cheese, on white bread, with mayonnaise	0.55	0.37
04 White Breads	14640038	Cheese sandwich, reduced fat American cheese, on white bread, with mayonnaise	0.55	0.37
04 White Breads	14640044	Cheese sandwich, reduced fat Cheddar cheese, on white bread, with mayonnaise	0.55	0.37
04 White Breads	14640050	Cheese sandwich, American cheese, on white bread, with butter	0.55	0.37
04 White Breads	14640056	Cheese sandwich, Cheddar cheese, on white bread, with butter	0.55	0.37
04 White Breads	14640062	Cheese sandwich, reduced fat American cheese, on white bread, with butter	0.55	0.37
04 White Breads	14640068	Cheese sandwich, reduced fat Cheddar cheese, on white bread, with butter	0.55	0.37
04 White Breads	14640100	Grilled cheese sandwich, NFS	0.55	0.518
04 White Breads	14640105	Grilled cheese sandwich, American cheese, on white bread	0.55	0.37
04 White Breads	14640125	Grilled cheese sandwich, Cheddar cheese, on white bread	0.55	0.37
04 White Breads	14640155	Grilled cheese sandwich, reduced fat American cheese, on white bread	0.55	0.37
04 White Breads	14640185	Grilled cheese sandwich, reduced fat Cheddar cheese, on white bread	0.55	0.37
04 White Breads	27250080	Salmon loaf	0.55	0.1204
04 White Breads	27250150	Tuna loaf	0.55	0.123
04 White Breads	27250260	Lobster with bread stuffing, baked	0.55	0.194
04 White Breads	27250450	Shrimp toast, fried	0.55	0.1174
04 White Breads	27500050	Sandwich, NFS	0.55	0.37
04 White Breads	27500100	Meat sandwich, NFS	0.55	0.37
04 White Breads	27510000	Beef sandwich, NFS	0.55	0.37
04 White Breads	27510235	Cheeseburger submarine sandwich with lettuce, tomato and spread	0.55	0.37
04 White Breads	27510700	Meatball and spaghetti sauce submarine sandwich	0.55	0.37
04 White Breads	27510910	Corned beef sandwich	0.55	0.392
04 White Breads	27511010	Pastrami sandwich	0.55	0.392
04 White Breads	27513010	Roast beef sandwich	0.55	0.37
04 White Breads	27513020	Roast beef sandwich, with gravy	0.55	0.2418
04 White Breads	27513040	Roast beef submarine sandwich, with lettuce, tomato and spread	0.55	0.37
04 White Breads	27513041	Roast beef submarine sandwich, with cheese, lettuce, tomato and spread	0.55	0.37
04 White Breads	27513050	Roast beef sandwich with cheese	0.55	0.3445
04 White Breads	27513060	Roast beef sandwich with bacon and cheese sauce	0.55	0.3819
04 White Breads	27513070	Roast beef submarine sandwich, on roll, au jus	0.55	0.3498
04 White Breads	27515000	Steak submarine sandwich with lettuce and tomato	0.55	0.392
04 White Breads	27515010	Steak sandwich, plain, on roll	0.55	0.329
04 White Breads	27515020	Steak and cheese submarine sandwich, with lettuce and tomato	0.55	0.37
04 White Breads	27515030	Steak and cheese sandwich, plain, on roll	0.55	0.332
04 White Breads	27515040	Steak and cheese submarine sandwich, plain, on roll	0.55	0.37
04 White Breads	27515050	Fajita-style beef sandwich with cheese, on pita bread, with lettuce and tomato	0.55	0.2205
04 White Breads	27516010	Gyro sandwich (pita bread, beef, lamb, onion, condiments), with tomato and sauce	0.55	0.297
04 White Breads	27517000	Hamburger wrap sandwich, from fast food	0.55	0.4127
04 White Breads	27520110	Bacon sandwich, with spread	0.55	0.6049
04 White Breads	27520120	Bacon and cheese sandwich, with spread	0.55	0.447
04 White Breads	27520140	Bacon and egg sandwich	0.55	0.421
04 White Breads	27520150	Bacon, lettuce, and tomato sandwich with spread	0.55	0.352
04 White Breads	27520155	Bacon, lettuce, and tomato submarine sandwich, with spread	0.55	0.37
04 White Breads	27520156	Bacon, lettuce, tomato, and cheese submarine sandwich, with spread	0.55	0.2646
04 White Breads	27520300	Ham sandwich, with spread	0.55	0.37
04 White Breads	27520310	Ham sandwich with lettuce and spread	0.55	0.439
04 White Breads	27520320	Ham and cheese sandwich, with lettuce and spread	0.55	0.3591
04 White Breads	27520340	Ham salad sandwich	0.55	0.3867
04 White Breads	27520390	Ham and cheese submarine sandwich, with lettuce, tomato and spread	0.55	0.37
04 White Breads	27520410	Cuban sandwich, with spread	0.55	0.449
04 White Breads	27520420	Midnight sandwich, with spread	0.55	0.357
04 White Breads	27520520	Pork sandwich	0.55	0.4947
04 White Breads	27540110	Sliced chicken sandwich, with spread	0.55	0.4769
04 White Breads	27540111	Sliced chicken sandwich, with cheese and spread	0.55	0.4045
04 White Breads	27540120	Chicken salad or chicken spread sandwich	0.55	0.391
04 White Breads	27540130	Chicken barbecue sandwich	0.55	0.447
04 White Breads	27540146	Chicken fillet sandwich, fried, from fast food	0.55	0.37
04 White Breads	27540147	Chicken fillet sandwich, fried, from fast food, with cheese	0.55	0.37
04 White Breads	27540160	Chicken fillet sandwich, NS as to fried or grilled, from fast food	0.55	0.37
04 White Breads	27540320	Turkey salad or turkey spread sandwich	0.55	0.386
04 White Breads	27550000	Fish sandwich, fried, from fast food	0.55	0.37
04 White Breads	27550100	Fish sandwich, fried, from fast food, with cheese	0.55	0.37
04 White Breads	27550150	Fried seafood sandwich	0.55	0.37
04 White Breads	27550510	Sardine sandwich	0.55	0.444
04 White Breads	27550720	Tuna salad sandwich, on bread	0.55	0.333
04 White Breads	27550730	Tuna salad sandwich, on bread, with cheese	0.55	0.333
04 White Breads	27560000	Luncheon meat sandwich, NFS, with spread	0.55	0.37
04 White Breads	27560510	Salami sandwich, with spread	0.55	0.6321
04 White Breads	27564010	Frankfurter or hot dog sandwich, NFS, plain, on white bread	0.55	0.37
04 White Breads	27564040	Frankfurter or hot dog sandwich, NFS, plain, on whole grain white bread	0.55	0.37
04 White Breads	27564070	Frankfurter or hot dog sandwich, beef, plain, on white bread	0.55	0.37
04 White Breads	27564100	Frankfurter or hot dog sandwich, beef, plain, on whole grain white bread	0.55	0.37
04 White Breads	27564130	Frankfurter or hot dog sandwich, beef and pork, plain, on white bread	0.55	0.37
04 White Breads	27564160	Frankfurter or hot dog sandwich, beef and pork, plain, on whole grain white bread	0.55	0.37

04 White Breads	27564190	Frankfurter or hot dog sandwich, meat and poultry, plain, on white bread	0.55	0.37
04 White Breads	27564220	Frankfurter or hot dog sandwich, meat and poultry, plain, on whole grain white	0.55	0.37
04 White Breads	27564250	Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on white bread	0.55	0.37
04 White Breads	27564280	Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on whole grain	0.55	0.37
04 White Breads	27564310	Frankfurter or hot dog sandwich, reduced fat or light, plain, on white bread	0.55	0.37
04 White Breads	27564340	Frankfurter or hot dog sandwich, reduced fat or light, plain, on whole grain whi	0.55	0.37
04 White Breads	27564370	Frankfurter or hot dog sandwich, fat free, plain, on white bread	0.55	0.37
04 White Breads	27564400	Frankfurter or hot dog sandwich, fat free, plain, on whole grain white bread	0.55	0.37
04 White Breads	27564450	Frankfurter or hot dog sandwich, with chili, on white bread	0.55	0.37
04 White Breads	27564480	Frankfurter or hot dog sandwich, with chili, on whole grain white bread	0.55	0.37
04 White Breads	42301010	Peanut butter sandwich, NFS	0.55	0.37
04 White Breads	42301015	Peanut butter sandwich, with regular peanut butter, on white bread	0.55	0.37
04 White Breads	42301115	Peanut butter sandwich, with reduced fat peanut butter, on white bread	0.55	0.37
04 White Breads	42302015	Peanut butter and jelly sandwich, with regular peanut butter, regular jelly, on v	0.55	0.37
04 White Breads	42302055	Peanut butter and jelly sandwich, with reduced fat peanut butter, regular jelly, 0.55	0.55	0.37
04 White Breads	42302105	Peanut butter and jelly sandwich, with regular peanut butter, reduced sugar je	0.55	0.37
04 White Breads	42302155	Peanut butter and jelly sandwich, with reduced fat peanut butter, reduced sug	0.55	0.37
04 White Breads	51000100	Bread, NS as to major flour	0.55	1
04 White Breads	51000110	Bread, NS as to major flour, toasted	0.55	1
04 White Breads	51101000	Bread, white	0.55	1
04 White Breads	51101010	Bread, white, toasted	0.55	1
04 White Breads	51101050	Bread, white, made from home recipe or purchased at a bakery	0.55	1
04 White Breads	51101060	Bread, white, made from home recipe or purchased at a bakery, toasted	0.55	1
04 White Breads	51102010	Bread, white with whole wheat swirl	0.55	1
04 White Breads	51102020	Bread, white with whole wheat swirl, toasted	0.55	1
04 White Breads	51105010	Bread, Cuban	0.55	1
04 White Breads	51105040	Bread, Cuban, toasted	0.55	1
04 White Breads	51106010	Bread, native, water, Puerto Rican style	0.55	1
04 White Breads	51106020	Bread, native, water, toasted, Puerto Rican style	0.55	1
04 White Breads	51106200	Bread, lard, Puerto Rican style	0.55	1
04 White Breads	51106210	Bread, lard, toasted, Puerto Rican style	0.55	1
04 White Breads	51106300	Bread, caressed, Puerto Rican style	0.55	1
04 White Breads	51106310	Bread, caressed, toasted, Puerto Rican style	0.55	1
04 White Breads	51107010	Bread, French or Vienna	0.55	1
04 White Breads	51107040	Bread, French or Vienna, toasted	0.55	1
04 White Breads	51109100	Bread, pita	0.55	1
04 White Breads	51109110	Bread, pita, toasted	0.55	1
04 White Breads	51109150	Bread, pita with fruit	0.55	1
04 White Breads	51109200	Bread, pita with fruit, toasted	0.55	1
04 White Breads	51111010	Bread, cheese	0.55	1
04 White Breads	51111040	Bread, cheese, toasted	0.55	1
04 White Breads	51113010	Bread, cinnamon	0.55	1
04 White Breads	51113100	Bread, cinnamon, toasted	0.55	1
04 White Breads	51121110	Bread, onion	0.55	1
04 White Breads	51121120	Bread, onion, toasted	0.55	1
04 White Breads	51122000	Bread, reduced calorie and/or high fiber, white or NFS	0.55	1
04 White Breads	51122010	Bread, reduced calorie and/or high fiber, white or NFS, toasted	0.55	1
04 White Breads	51122100	Bread, reduced calorie and/or high fiber, white or NFS, with fruit and/or nuts	0.55	1
04 White Breads	51122110	Bread, reduced calorie and/or high fiber, white or NFS, with fruit and/or nuts, t	0.55	1
04 White Breads	51122300	Bread, white, special formula, added fiber	0.55	1
04 White Breads	51122310	Bread, white, special formula, added fiber, toasted	0.55	1
04 White Breads	51130510	Bread, white, low sodium or no salt	0.55	1
04 White Breads	51130520	Bread, white, low sodium or no salt, toasted	0.55	1
04 White Breads	51134000	Bread, sweet potato	0.55	1
04 White Breads	51134010	Bread, sweet potato, toasted	0.55	1
04 White Breads	51135000	Bread, vegetable	0.55	1
04 White Breads	51135010	Bread, vegetable, toasted	0.55	1
04 White Breads	51167000	Brioche	0.55	1
04 White Breads	51804010	Bread, soy	0.55	1
04 White Breads	51804020	Bread, soy, toasted	0.55	1
04 White Breads	51805010	Bread, sunflower meal	0.55	1
04 White Breads	58201000	Jelly sandwich, regular jelly, NFS	0.55	0.37
04 White Breads	58201005	Jelly sandwich, regular jelly, on white bread	0.55	0.37
04 White Breads	58201035	Jelly sandwich, reduced sugar jelly, on white bread	0.55	0.37
04 White Breads	74701000	Tomato sandwich	0.55	0.37
05 White Rolls	27510130	Beef barbecue submarine sandwich, on bun	0.48	0.3723
05 White Rolls	27510140	Cheeseburger slider, from fast food	0.48	0.482

In absence of data in FNDDS, the worst case fraction identified among similar codes was utilized (58.2% content identified in "hamburger slider, from fast food")

05 White Rolls	27510155	Cheeseburger, NFS	0.48	0.582
05 White Rolls	27510160	Cheeseburger, from fast food, 1 small patty	0.48	0.459
05 White Rolls	27510170	Cheeseburger (Burger King)	0.48	0.426
05 White Rolls	27510171	Whopper Jr with cheese (Burger King)	0.48	0.329

05 White Rolls	27510172	Cheeseburger (McDonalds)	0.48	0.582	In absence of data in FNDDS, the worst case fraction identified among similar codes was utilized (58.2% content identified in "hamburger slider, from fast food")
05 White Rolls	27510190	Cheeseburger, from school cafeteria	0.48	0.51	
05 White Rolls	27510191	Cheeseburger slider	0.48	0.3448	
05 White Rolls	27510195	Cheeseburger, on white bun, 1 small patty	0.48	0.376	
05 White Rolls	27510215	Cheeseburger, from fast food, 1 medium patty	0.48	0.3605	
05 White Rolls	27510229	Quarter Pounder (McDonalds)	0.48	0.582	In absence of data in FNDDS, the worst case fraction identified among similar codes was utilized (58.2% content identified in "hamburger slider, from fast food")
05 White Rolls	27510231	Whopper with cheese (Burger King)	0.48	0.582	In absence of data in FNDDS, the worst case fraction identified among similar codes was utilized (58.2% content identified in "hamburger slider, from fast food")
05 White Rolls	27510232	Quarter Pounder with cheese (McDonalds)	0.48	0.582	In absence of data in FNDDS, the worst case fraction identified among similar codes was utilized (58.2% content identified in "hamburger slider, from fast food")
05 White Rolls	27510241	Cheeseburger, on white bun, 1 medium patty	0.48	0.3605	
05 White Rolls	27510245	Cheeseburger, on white bun, 1 large patty	0.48	0.289	
05 White Rolls	27510254	Double cheeseburger, on white bun, 2 small patties	0.48	0.255	
05 White Rolls	27510257	Double cheeseburger, on white bun, 2 medium patties	0.48	0.219	
05 White Rolls	27510261	Cheeseburger, from fast food, 1 large patty	0.48	0.289	
05 White Rolls	27510262	Double cheeseburger, on white bun, 2 large patties	0.48	0.18	
05 White Rolls	27510371	Double cheeseburger, from fast food, 2 small patties	0.48	0.339	
05 White Rolls	27510386	Double cheeseburger (Burger King)	0.48	0.294	

05 White Rolls	27510387	Double cheeseburger (McDonalds)	0.48	0.582	In absence of data in FNDDS, the worst case fraction identified among similar codes was utilized (58.2% content identified in "hamburger slider, from fast food")
05 White Rolls	27510388	McDouble (McDonalds)	0.48	0.582	In absence of data in FNDDS, the worst case fraction identified among similar codes was utilized (58.2% content identified in "hamburger slider, from fast food")
05 White Rolls	27510389	Big Mac (McDonalds)	0.48	0.582	In absence of data in FNDDS, the worst case fraction identified among similar codes was utilized (58.2% content identified in "hamburger slider, from fast food")
05 White Rolls	27510401	Double cheeseburger, from fast food, 2 medium patties	0.48	0.22	
05 White Rolls	27510405	Double cheeseburger, from fast food, 2 large patties	0.48	0.18	
05 White Rolls	27510501	Hamburger slider, from fast food	0.48	0.582	
05 White Rolls	27510521	Hamburger, NFS	0.48	0.582	In absence of data in FNDDS, the worst case fraction identified among similar codes was utilized (58.2% content identified in "hamburger slider, from fast food")
05 White Rolls	27510531	Hamburger, from fast food, 1 small patty	0.48	0.564	
05 White Rolls	27510551	Hamburger (Burger King)	0.48	0.486	
05 White Rolls	27510552	Whopper Jr (Burger King)	0.48	0.379	
05 White Rolls	27510553	Hamburger (McDonalds)	0.48	0.582	In absence of data in FNDDS, the worst case fraction identified among similar codes was utilized (58.2% content identified in "hamburger slider, from fast food")
05 White Rolls	27510565	Hamburger, from school cafeteria	0.48	0.565	
05 White Rolls	27510573	Hamburger slider	0.48	0.582	
05 White Rolls	27510575	Hamburger, on white bun, 1 small patty	0.48	0.443	
05 White Rolls	27510601	Hamburger, from fast food, 1 medium patty	0.48	0.4126	

05 White Rolls	27510605	Hamburger, from fast food, 1 large patty	0.48	0.3417
05 White Rolls	27510615	Whopper (Burger King)	0.48	0.582
05 White Rolls	27510631	Hamburger, on white bun, 1 medium patty	0.48	0.4126
05 White Rolls	27510635	Hamburger, on white bun, 1 large patty	0.48	0.3417
05 White Rolls	27510649	Double hamburger, on white bun, 2 small patties	0.48	0.2846
05 White Rolls	27510655	Double hamburger, on white bun, 2 medium patties	0.48	0.26
05 White Rolls	27510658	Double hamburger, on white bun, 2 large patties	0.48	0.206
05 White Rolls	27510661	Double hamburger, from fast food, 2 small patties	0.48	0.392
05 White Rolls	27510671	Double hamburger, from fast food, 2 medium patties	0.48	0.26
05 White Rolls	27510675	Double hamburger, from fast food, 2 large patties	0.48	0.206
05 White Rolls	27510705	Chiliburger, with or without cheese, on bun	0.48	0.2865
05 White Rolls	27515070	Steak and cheese submarine sandwich, with fried peppers and onions, on roll	0.48	0.334
05 White Rolls	27520360	Ham and cheese sandwich, on bun, with lettuce and spread	0.48	0.269
05 White Rolls	27520370	Hot ham and cheese sandwich, on bun	0.48	0.2597
05 White Rolls	27520500	Pork sandwich, on white roll, with onions, dill pickles and barbecue sauce	0.48	0.29
05 White Rolls	27520510	Pork barbecue sandwich or Sloppy Joe, on bun	0.48	0.2456
05 White Rolls	27540175	Chicken fillet sandwich, fried, on white bun	0.48	0.29
05 White Rolls	27540176	Chicken fillet sandwich, fried, on white bun; with cheese	0.48	0.29
05 White Rolls	27540195	Chicken fillet sandwich, grilled, on white bun	0.48	0.29
05 White Rolls	27540196	Chicken fillet sandwich, grilled, on white bun, with cheese	0.48	0.29
05 White Rolls	27545100	Turkey or chicken burger, on white bun	0.48	0.4126
05 White Rolls	27550400	Fish sandwich, fried, on white bun	0.48	0.29
05 White Rolls	27550405	Fish sandwich, fried, on white bun, with cheese	0.48	0.29
05 White Rolls	27550740	Tuna salad sandwich, on bun	0.48	0.29
05 White Rolls	27550745	Tuna salad sandwich, on bun, with cheese	0.48	0.29
05 White Rolls	27564000	Frankfurter or hot dog sandwich, NFS, plain, on white bun	0.48	0.29
05 White Rolls	27564003	Frankfurter or hot dog sandwich, NFS, plain, on whole grain white bun	0.48	0.29
05 White Rolls	27564060	Frankfurter or hot dog sandwich, beef, plain, on white bun	0.48	0.29
05 White Rolls	27564063	Frankfurter or hot dog sandwich, beef, plain, on whole grain white bun	0.48	0.29
05 White Rolls	27564120	Frankfurter or hot dog sandwich, beef and pork, plain, on white bun	0.48	0.29
05 White Rolls	27564123	Frankfurter or hot dog sandwich, beef and pork, plain, on whole grain white bun	0.48	0.29
05 White Rolls	27564180	Frankfurter or hot dog sandwich, meat and poultry, plain, on white bun	0.48	0.29
05 White Rolls	27564183	Frankfurter or hot dog sandwich, meat and poultry, plain, on whole grain white bun	0.48	0.29
05 White Rolls	27564240	Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on white bun	0.48	0.29
05 White Rolls	27564243	Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on whole grain white bun	0.48	0.29
05 White Rolls	27564300	Frankfurter or hot dog sandwich, reduced fat or light, plain, on white bun	0.48	0.29
05 White Rolls	27564303	Frankfurter or hot dog sandwich, reduced fat or light, plain, on whole grain white bun	0.48	0.29
05 White Rolls	27564360	Frankfurter or hot dog sandwich, fat free, plain, on white bun	0.48	0.29
05 White Rolls	27564363	Frankfurter or hot dog sandwich, fat free, plain, on whole grain white bun	0.48	0.29
05 White Rolls	27564420	Frankfurter or hot dog sandwich, meatless, plain, on bun	0.48	0.29
05 White Rolls	27564440	Frankfurter or hot dog sandwich, with chili, on white bun	0.48	0.29
05 White Rolls	27564443	Frankfurter or hot dog sandwich, with chili, on whole grain white bun	0.48	0.29
05 White Rolls	27564500	Frankfurter or hot dog sandwich, with meatless chili, on white bun	0.48	0.29
05 White Rolls	27564503	Frankfurter or hot dog sandwich, with meatless chili, on whole grain white bun	0.48	0.29
05 White Rolls	27564560	Frankfurter or hot dog sandwich, meatless, on bun, with meatless chili	0.48	0.29
05 White Rolls	32202000	Egg, cheese, ham, and bacon on bun	0.48	0.29
05 White Rolls	32202034	Egg, cheese, and sausage on bun	0.48	0.29
05 White Rolls	51000200	Roll, NS as to major flour	0.48	1
05 White Rolls	51000300	Roll, hard, NS as to major flour	0.48	1
05 White Rolls	51000400	Roll, bran, NS as to type of bran	0.48	1
05 White Rolls	51150000	Roll, white, soft	0.48	1
05 White Rolls	51153000	Roll, white, hard	0.48	1
05 White Rolls	51154010	Roll, white, hot dog bun	0.48	1
05 White Rolls	51154100	Roll, white, hamburger bun	0.48	1
05 White Rolls	51154510	Roll, diet	0.48	1
05 White Rolls	51154550	Roll, egg bread	0.48	1
05 White Rolls	51154600	Roll, cheese	0.48	1
05 White Rolls	51155000	Roll, French or Vienna	0.48	1
05 White Rolls	51156500	Roll, garlic	0.48	1
05 White Rolls	51157000	Roll, white, hoagie, submarine	0.48	1
05 White Rolls	51158100	Roll, Mexican, bolillo	0.48	1
05 White Rolls	51159000	Roll, sour dough	0.48	1
06 Fruit-Flavored Beverages	92432000	Fruit juice drink, citrus, carbonated	0.005	1
06 Fruit-Flavored Beverages	92433000	Fruit juice drink, noncitrus, carbonated	0.005	1
06 Fruit-Flavored Beverages	92510610	Fruit juice drink	0.005	1
06 Fruit-Flavored Beverages	92510650	Tamarind drink	0.005	1
06 Fruit-Flavored Beverages	92510720	Fruit punch, made with fruit juice and soda	0.005	1
06 Fruit-Flavored Beverages	92510730	Fruit punch, made with soda, fruit juice, and sherbet or ice cream	0.005	1
06 Fruit-Flavored Beverages	92510955	Lemonade, fruit juice drink	0.005	1
06 Fruit-Flavored Beverages	92510960	Lemonade, fruit flavored drink	0.005	1
06 Fruit-Flavored Beverages	92511000	Lemonade, frozen concentrate, not reconstituted	0.005	4
06 Fruit-Flavored Beverages	92511015	Fruit flavored drink	0.005	1
06 Fruit-Flavored Beverages	92511250	Fruit juice beverage, 40-50% juice, citrus	0.005	1
06 Fruit-Flavored Beverages	92512040	Frozen daiquiri mix, frozen concentrate, not reconstituted	0.005	4
06 Fruit-Flavored Beverages	92512050	Frozen daiquiri mix, from frozen concentrate, reconstituted	0.005	1

In absence of data in FNDDS, the worst case fraction identified among similar codes was utilized (58.2% content identified in "hamburger slider, from fast food")

06 Fruit-Flavored Beverages	92512090	Pina Colada, nonalcoholic	0.005	1
06 Fruit-Flavored Beverages	92512110	Margarita mix, nonalcoholic	0.005	1
06 Fruit-Flavored Beverages	92530410	Fruit flavored drink, with high vitamin C	0.005	1
06 Fruit-Flavored Beverages	92530510	Cranberry juice drink, with high vitamin C	0.005	1
06 Fruit-Flavored Beverages	92530610	Fruit juice drink, with high vitamin C	0.005	1
06 Fruit-Flavored Beverages	92530950	Vegetable and fruit juice drink, with high vitamin C	0.005	1
06 Fruit-Flavored Beverages	92531030	Fruit juice drink (Sunny D)	0.005	1
06 Fruit-Flavored Beverages	92541010	Fruit flavored drink, powdered, reconstituted	0.005	1
06 Fruit-Flavored Beverages	92542000	Fruit flavored drink, with high vitamin C, powdered, reconstituted	0.005	1
06 Fruit-Flavored Beverages	92550030	Fruit juice drink, with high vitamin C, light	0.005	1
06 Fruit-Flavored Beverages	92550035	Fruit juice drink, light	0.005	1
06 Fruit-Flavored Beverages	92550040	Fruit juice drink, diet	0.005	1
06 Fruit-Flavored Beverages	92550110	Cranberry juice drink, with high vitamin C, light	0.005	1
06 Fruit-Flavored Beverages	92550200	Grape juice drink, light	0.005	1
06 Fruit-Flavored Beverages	92550350	Orange juice beverage, 40-50% juice, light	0.005	1
06 Fruit-Flavored Beverages	92550360	Apple juice beverage, 40-50% juice, light	0.005	1
06 Fruit-Flavored Beverages	92550370	Lemonade, fruit juice drink, light	0.005	1
06 Fruit-Flavored Beverages	92550380	Pomegranate juice beverage, 40-50% juice, light	0.005	1
06 Fruit-Flavored Beverages	92550400	Vegetable and fruit juice drink, with high vitamin C, diet	0.005	1
06 Fruit-Flavored Beverages	92550405	Vegetable and fruit juice drink, with high vitamin C, light	0.005	1
06 Fruit-Flavored Beverages	92550610	Fruit flavored drink, with high vitamin C, diet	0.005	1
06 Fruit-Flavored Beverages	92550620	Fruit flavored drink, diet	0.005	1
06 Fruit-Flavored Beverages	92552000	Fruit flavored drink, with high vitamin C, powdered, reconstituted, diet	0.005	1
06 Fruit-Flavored Beverages	92552010	Fruit flavored drink, powdered, reconstituted, diet	0.005	1
06 Fruit-Flavored Beverages	92552020	Fruit juice drink, reduced sugar (Sunny D)	0.005	1
06 Fruit-Flavored Beverages	92552030	Fruit juice drink (Capri Sun)	0.005	1
06 Fruit-Flavored Beverages	92582100	Fruit juice drink, with high vitamin C, plus added calcium	0.005	1
06 Fruit-Flavored Beverages	92582110	Fruit juice drink, added calcium (Sunny D)	0.005	1
06 Fruit-Flavored Beverages	92804000	Shirley Temple	0.005	1
06 Fruit-Flavored Beverages	92900100	Fruit flavored drink, with high vitamin C, powdered, not reconstituted	0.005	10.23
06 Fruit-Flavored Beverages	92900110	Fruit flavored drink, powdered, not reconstituted	0.005	10.23
06 Fruit-Flavored Beverages	92900200	Fruit flavored drink, powdered, not reconstituted, diet	0.005	10.23
06 Fruit-Flavored Beverages	95342000	Fruit juice, acai blend	0.005	1
07 RTE Breakfast Cereals	57100100	Cereal, ready-to-eat, NFS	0.2	1
07 RTE Breakfast Cereals	57101000	Cereal (Kellogg's All-Bran)	0.2	1
07 RTE Breakfast Cereals	57103000	Cereal (Post Alpha-Bits)	0.2	1
07 RTE Breakfast Cereals	57103100	Cereal (General Mills Cheerios Apple Cinnamon)	0.2	1
07 RTE Breakfast Cereals	57104000	Cereal (Kellogg's Apple Jacks)	0.2	1
07 RTE Breakfast Cereals	57106050	Cereal (Post Great Grains Banana Nut Crunch)	0.2	1
07 RTE Breakfast Cereals	57106060	Cereal (General Mills Cheerios Banana Nut)	0.2	1
07 RTE Breakfast Cereals	57106260	Cereal (General Mills Cheerios Berry Burst)	0.2	1
07 RTE Breakfast Cereals	57117000	Cereal (Quaker Cap'n Crunch)	0.2	1
07 RTE Breakfast Cereals	57117500	Cereal (Quaker Christmas Crunch)	0.2	1
07 RTE Breakfast Cereals	57119000	Cereal (Quaker Cap'n Crunch's Crunchberries)	0.2	1
07 RTE Breakfast Cereals	57120000	Cereal (Quaker Cap'n Crunch's Peanut Butter Crunch)	0.2	1
07 RTE Breakfast Cereals	57123000	Cereal (General Mills Cheerios)	0.2	1
07 RTE Breakfast Cereals	57124030	Cereal (General Mills Chex Chocolate)	0.2	1
07 RTE Breakfast Cereals	57124050	Cereal (General Mills Chex Cinnamon)	0.2	1
07 RTE Breakfast Cereals	57124100	Cereal (General Mills Cheerios Chocolate)	0.2	1
07 RTE Breakfast Cereals	57124200	Cereal, chocolate flavored, frosted, puffed corn	0.2	1
07 RTE Breakfast Cereals	57124300	Cereal (General Mills Lucky Charms Chocolate)	0.2	1
07 RTE Breakfast Cereals	57125000	Cereal (General Mills Cinnamon Toast Crunch)	0.2	1
07 RTE Breakfast Cereals	57125010	Cereal (General Mills 25% Less Sugar Cinnamon Toast Crunch)	0.2	1
07 RTE Breakfast Cereals	57125900	Cereal (General Mills Honey Nut Clusters)	0.2	1
07 RTE Breakfast Cereals	57126000	Cereal (Kellogg's Cocoa Krispies)	0.2	1
07 RTE Breakfast Cereals	57127000	Cereal (Post Cocoa Pebbles)	0.2	1
07 RTE Breakfast Cereals	57128000	Cereal (General Mills Cocoa Puffs)	0.2	1
07 RTE Breakfast Cereals	57130000	Cereal (General Mills Cookie Crisp)	0.2	1
07 RTE Breakfast Cereals	57132000	Cereal (General Mills Chex Corn)	0.2	1
07 RTE Breakfast Cereals	57134000	Cereal, corn flakes	0.2	1
07 RTE Breakfast Cereals	57135000	Cereal (Kellogg's Corn Flakes)	0.2	1
07 RTE Breakfast Cereals	57137000	Cereal, corn puffs	0.2	1
07 RTE Breakfast Cereals	57139000	Cereal (General Mills Count Chocula)	0.2	1
07 RTE Breakfast Cereals	57143000	Cereal (Kellogg's Cracklin' Oat Bran)	0.2	1
07 RTE Breakfast Cereals	57143500	Cereal (Post Great Grains, Cranberry Almond Crunch)	0.2	1
07 RTE Breakfast Cereals	57148000	Cereal (Kellogg's Crispix)	0.2	1
07 RTE Breakfast Cereals	57151000	Cereal, crispy rice	0.2	1
07 RTE Breakfast Cereals	57206700	Cereal (General Mills Fiber One)	0.2	1
07 RTE Breakfast Cereals	57206710	Cereal (General Mills Fiber One Honey Clusters)	0.2	1
07 RTE Breakfast Cereals	57206715	Cereal (General Mills Fiber One Raisin Bran Clusters)	0.2	1
07 RTE Breakfast Cereals	57207000	Cereal, bran flakes	0.2	1
07 RTE Breakfast Cereals	57208000	Cereal (Kellogg's All-Bran Complete Wheat Flakes)	0.2	1
07 RTE Breakfast Cereals	57209000	Cereal (Post Bran Flakes)	0.2	1
07 RTE Breakfast Cereals	57211000	Cereal (General Mills Frankenberry)	0.2	1
07 RTE Breakfast Cereals	57213000	Cereal (Kellogg's Froot Loops)	0.2	1
07 RTE Breakfast Cereals	57213010	Cereal (Kellogg's Froot Loops Marshmallow)	0.2	1
07 RTE Breakfast Cereals	57213850	Cereal (General Mills Cheerios Frosted)	0.2	1
07 RTE Breakfast Cereals	57214000	Cereal (Kellogg's Frosted Mini-Wheats)	0.2	1
07 RTE Breakfast Cereals	57216000	Cereal, frosted rice	0.2	1
07 RTE Breakfast Cereals	57221700	Cereal, fruit rings	0.2	1
07 RTE Breakfast Cereals	57221810	Cereal (General Mills Cheerios Fruity)	0.2	1
07 RTE Breakfast Cereals	57223000	Cereal (Post Fruity Pebbles)	0.2	1
07 RTE Breakfast Cereals	57224000	Cereal (General Mills Golden Grahams)	0.2	1
07 RTE Breakfast Cereals	57227000	Cereal, granola	0.2	1
07 RTE Breakfast Cereals	57228000	Granola, homemade	0.2	1
07 RTE Breakfast Cereals	57229000	Cereal (Kellogg's Low Fat Granola)	0.2	1
07 RTE Breakfast Cereals	57230000	Cereal (Post Grape-Nuts)	0.2	1
07 RTE Breakfast Cereals	57231200	Cereal (Post Great Grains Raisins, Dates, and Pecans)	0.2	1
07 RTE Breakfast Cereals	57237100	Cereal (Post Honey Bunches of Oats Honey Roasted)	0.2	1
07 RTE Breakfast Cereals	57237200	Cereal (Post Honey Bunches of Oats with Vanilla Bunches)	0.2	1

07 RTE Breakfast Cereals	57237300	Cereal (Post Honey Bunches of Oats with Almonds)	0.2	1
07 RTE Breakfast Cereals	57238000	Cereal (Post Honeycomb)	0.2	1
07 RTE Breakfast Cereals	57240100	Cereal (General Mills Chex Honey Nut)	0.2	1
07 RTE Breakfast Cereals	57241000	Cereal (General Mills Cheerios Honey Nut)	0.2	1
07 RTE Breakfast Cereals	57241200	Cereal (Post Shredded Wheat Honey Nut)	0.2	1
07 RTE Breakfast Cereals	57243000	Cereal (Kellogg's Honey Smacks)	0.2	1
07 RTE Breakfast Cereals	57301500	Cereal (Kashi 7 Whole Grain Puffs)	0.2	1
07 RTE Breakfast Cereals	57301505	Cereal (Kashi Autumn Wheat)	0.2	1
07 RTE Breakfast Cereals	57301510	Cereal (Kashi GOLEAN)	0.2	1
07 RTE Breakfast Cereals	57301511	Cereal (Kashi GOLEAN Crunch)	0.2	1
07 RTE Breakfast Cereals	57301512	Cereal (Kashi GOLEAN Crunch Honey Almond Flax)	0.2	1
07 RTE Breakfast Cereals	57301530	Cereal (Kashi Heart to Heart Honey Toasted Oat)	0.2	1
07 RTE Breakfast Cereals	57303100	Cereal (General Mills Kix)	0.2	1
07 RTE Breakfast Cereals	57303105	Cereal (General Mills Honey Kix)	0.2	1
07 RTE Breakfast Cereals	57303200	Cereal (Kellogg's Krave)	0.2	1
07 RTE Breakfast Cereals	57304100	Cereal (Quaker Life)	0.2	1
07 RTE Breakfast Cereals	57305100	Cereal (General Mills Lucky Charms)	0.2	1
07 RTE Breakfast Cereals	57305150	Cereal, frosted oat cereal with marshmallows	0.2	1
07 RTE Breakfast Cereals	57305160	Cereal (Malt-O-Meal Blueberry Muffin Tops)	0.2	1
07 RTE Breakfast Cereals	57305165	Cereal (Malt-O-Meal Cinnamon Toasters)	0.2	1
07 RTE Breakfast Cereals	57305170	Cereal (Malt-O-Meal Coco-Roos)	0.2	1
07 RTE Breakfast Cereals	57305174	Cereal (Malt-O-Meal Colossal Crunch)	0.2	1
07 RTE Breakfast Cereals	57305175	Cereal (Malt-O-Meal Cocoa Dyno-Bites)	0.2	1
07 RTE Breakfast Cereals	57305180	Cereal (Malt-O-Meal Corn Bursts)	0.2	1
07 RTE Breakfast Cereals	57305210	Cereal (Malt-O-Meal Frosted Flakes)	0.2	1
07 RTE Breakfast Cereals	57305300	Cereal (Malt-O-Meal Fruity Dyno-Bites)	0.2	1
07 RTE Breakfast Cereals	57305400	Cereal (Malt-O-Meal Honey Graham Squares)	0.2	1
07 RTE Breakfast Cereals	57305500	Cereal (Malt-O-Meal Honey Nut Toasty O's)	0.2	1
07 RTE Breakfast Cereals	57305600	Cereal (Malt-O-Meal Marshmallow Mateys)	0.2	1
07 RTE Breakfast Cereals	57306500	Cereal (Malt-O-Meal Golden Puffs)	0.2	1
07 RTE Breakfast Cereals	57306700	Cereal (Malt-O-Meal Toasted Oat Cereal)	0.2	1
07 RTE Breakfast Cereals	57306800	Cereal (Malt-O-Meal Tootie Fruities)	0.2	1
07 RTE Breakfast Cereals	57308190	Cereal, muesli	0.2	1
07 RTE Breakfast Cereals	57308400	Cereal (General Mills Cheerios Multigrain)	0.2	1
07 RTE Breakfast Cereals	57309100	Cereal (Nature Valley Granola)	0.2	1
07 RTE Breakfast Cereals	57316380	Cereal (General Mills Cheerios Oat Cluster Crunch)	0.2	1
07 RTE Breakfast Cereals	57316385	Cereal (General Mills Cheerios Protein)	0.2	1
07 RTE Breakfast Cereals	57316450	Cereal (General Mills Oatmeal Crisp with Almonds)	0.2	1
07 RTE Breakfast Cereals	57316710	Cereal (Quaker Honey Graham Oh's)	0.2	1
07 RTE Breakfast Cereals	57320500	Cereal (Quaker Granola with Oats, Honey, and Raisins)	0.2	1
07 RTE Breakfast Cereals	57321900	Cereal (Nature's Path Organic Flax Plus)	0.2	1
07 RTE Breakfast Cereals	57326000	Cereal (Barbara's Puffins)	0.2	1
07 RTE Breakfast Cereals	57327450	Cereal (Quaker Toasted Oat Bran)	0.2	1
07 RTE Breakfast Cereals	57327500	Cereal (Quaker Oatmeal Squares)	0.2	1
07 RTE Breakfast Cereals	57329000	Cereal, raisin bran	0.2	1
07 RTE Breakfast Cereals	57330000	Cereal (Kellogg's Raisin Bran)	0.2	1
07 RTE Breakfast Cereals	57330010	Cereal (Kellogg's Raisin Bran Crunch)	0.2	1
07 RTE Breakfast Cereals	57331000	Cereal (Post Raisin Bran)	0.2	1
07 RTE Breakfast Cereals	57332100	Cereal (General Mills Raisin Nut Bran)	0.2	1
07 RTE Breakfast Cereals	57335550	Cereal (General Mills Reese's Puffs)	0.2	1
07 RTE Breakfast Cereals	57336000	Cereal (General Mills Chex Rice)	0.2	1
07 RTE Breakfast Cereals	57337000	Cereal, rice flakes	0.2	1
07 RTE Breakfast Cereals	57339000	Cereal (Kellogg's Rice Krispies)	0.2	1
07 RTE Breakfast Cereals	57339500	Cereal (Kellogg's Rice Krispies Treats Cereal)	0.2	1
07 RTE Breakfast Cereals	57340000	Cereal, puffed rice	0.2	1
07 RTE Breakfast Cereals	57341200	Cereal (Kellogg's Smart Start Strong)	0.2	1
07 RTE Breakfast Cereals	57341300	Cereal (Kellogg's Smorz)	0.2	1
07 RTE Breakfast Cereals	57344000	Cereal (Kellogg's Special K)	0.2	1
07 RTE Breakfast Cereals	57344001	Cereal (Kellogg's Special K Blueberry)	0.2	1
07 RTE Breakfast Cereals	57344005	Cereal (Kellogg's Special K Chocolatey Delight)	0.2	1
07 RTE Breakfast Cereals	57344010	Cereal (Kellogg's Special K Red Berries)	0.2	1
07 RTE Breakfast Cereals	57344015	Cereal (Kellogg's Special K Fruit & Yogurt)	0.2	1
07 RTE Breakfast Cereals	57344020	Cereal (Kellogg's Special K Vanilla Almond)	0.2	1
07 RTE Breakfast Cereals	57344025	Cereal (Kellogg's Special K Cinnamon Pecan)	0.2	1
07 RTE Breakfast Cereals	57347000	Cereal (Kellogg's Corn Pops)	0.2	1
07 RTE Breakfast Cereals	57348000	Cereal, frosted corn flakes	0.2	1
07 RTE Breakfast Cereals	57349000	Cereal (Kellogg's Frosted Flakes)	0.2	1
07 RTE Breakfast Cereals	57355000	Cereal (Post Golden Crisp)	0.2	1
07 RTE Breakfast Cereals	57401100	Cereal, toasted oat	0.2	1
07 RTE Breakfast Cereals	57407100	Cereal (General Mills Trix)	0.2	1
07 RTE Breakfast Cereals	57408100	Cereal (Uncle Sam)	0.2	1
07 RTE Breakfast Cereals	57411000	Cereal (General Mills Chex Wheat)	0.2	1
07 RTE Breakfast Cereals	57416000	Cereal, puffed wheat, plain	0.2	1
07 RTE Breakfast Cereals	57416010	Cereal, puffed wheat, sweetened	0.2	1
07 RTE Breakfast Cereals	57417000	Cereal (Post Shredded Wheat)	0.2	1
07 RTE Breakfast Cereals	57418000	Cereal (General Mills Wheaties)	0.2	1
08 Chewing Gum	91800100	Chewing gum, NFS	0.5	1
08 Chewing Gum	91801000	Chewing gum, regular	0.5	1
08 Chewing Gum	91802000	Chewing gum, sugar free	0.5	1
09 Frostings	53239050	Cookie, shortbread, with icing or filling	0.5	0.1
09 Frostings	53240010	Cookie, animal, with frosting or icing	0.5	0.1
09 Frostings	53244010	Cookie, butter or sugar, with chocolate icing or filling	0.5	0.1
09 Frostings	53244020	Cookie, butter or sugar, with icing or filling other than chocolate	0.5	0.1
09 Frostings	53520135	Doughnut, cake type, with icing	0.5	0.2
09 Frostings	53520140	Doughnut, cake type, chocolate icing	0.5	0.2
09 Frostings	53520160	Doughnut, chocolate, with chocolate icing	0.5	0.2
09 Frostings	53521130	Doughnut, yeast type, with chocolate icing	0.5	0.2
09 Frostings	53521230	Doughnut, custard-filled, with icing	0.5	0.1667
09 Frostings	91305010	Icing, chocolate	0.5	1
09 Frostings	91305020	Icing, white	0.5	1

10 Coffee Whiteners	12200100	Coffee creamer, NFS	0.5	1
10 Coffee Whiteners	12210200	Coffee creamer, liquid	0.5	1
10 Coffee Whiteners	12210210	Coffee creamer, liquid, flavored	0.5	1
10 Coffee Whiteners	12210260	Coffee creamer, liquid, fat free	0.5	1
10 Coffee Whiteners	12210270	Coffee creamer, liquid, fat free, flavored	0.5	1
10 Coffee Whiteners	12210280	Coffee creamer, liquid, fat free, sugar free, flavored	0.5	1
10 Coffee Whiteners	12210310	Coffee creamer, liquid, sugar free, flavored	0.5	1
10 Coffee Whiteners	12210400	Coffee creamer, powder	0.5	1
10 Coffee Whiteners	12210420	Coffee creamer, powder, flavored	0.5	1
10 Coffee Whiteners	12210430	Coffee creamer, powder, fat free	0.5	1
10 Coffee Whiteners	12210440	Coffee creamer, powder, fat free, flavored	0.5	1
10 Coffee Whiteners	12210505	Coffee creamer, powder, sugar free, flavored	0.5	1
10 Coffee Whiteners	12210520	Coffee creamer, soy, liquid	0.5	1
11 Margarine	81102000	Margarine, NFS	0.5	1
11 Margarine	81102010	Margarine, stick	0.5	1
11 Margarine	81102020	Margarine, tub	0.5	1
11 Margarine	81103035	Margarine-oil blend, NFS	0.5	1
11 Margarine	81103040	Margarine-oil blend, stick	0.5	1
11 Margarine	81103080	Margarine-oil blend, tub	0.5	1
11 Margarine	81104010	Margarine-oil blend, tub, light	0.5	1
11 Margarine	81104020	Margarine-oil blend, stick, light	0.5	1
12 Fat Emulsions for Baking	53209010	Cookie, sugar wafer, chocolate-covered	1	1
12 Fat Emulsions for Baking	53210000	Cookie, chocolate wafer	1	1
12 Fat Emulsions for Baking	53222020	Cookie, cone shell, ice cream type, wafer or cake	1	1
12 Fat Emulsions for Baking	53242000	Cookie, sugar wafer	1	1
12 Fat Emulsions for Baking	53247000	Cookie, vanilla wafer	1	1
12 Fat Emulsions for Baking	53247050	Cookie, vanilla wafer, reduced fat	1	1
12 Fat Emulsions for Baking	53260500	Cookie, sugar wafer, sugar free	1	1
13 Mayo and Mayo-Type Dressings	81302040	Sandwich spread	0.5	1
13 Mayo and Mayo-Type Dressings	81302050	Tartar sauce	0.5	1
13 Mayo and Mayo-Type Dressings	83100200	Salad dressing, NFS, for sandwiches	0.5	1
13 Mayo and Mayo-Type Dressings	83107000	Mayonnaise, regular	0.5	1
13 Mayo and Mayo-Type Dressings	83108000	Vegan mayonnaise	0.5	1
13 Mayo and Mayo-Type Dressings	83110000	Mayonnaise-type salad dressing	0.5	1
13 Mayo and Mayo-Type Dressings	83204000	Mayonnaise, light	0.5	1
13 Mayo and Mayo-Type Dressings	83204030	Mayonnaise, reduced fat, with olive oil	0.5	1
13 Mayo and Mayo-Type Dressings	83204050	Mayonnaise-type salad dressing, light	0.5	1
13 Mayo and Mayo-Type Dressings	83300700	Mayonnaise, fat free	0.5	1
14 Salad Dressings	83100100	Salad dressing, NFS, for salads	0.5	1
14 Salad Dressings	83101000	Blue or roquefort cheese dressing	0.5	1
14 Salad Dressings	83101600	Bacon and tomato dressing	0.5	1
14 Salad Dressings	83102000	Caesar dressing	0.5	1
14 Salad Dressings	83103000	Coleslaw dressing	0.5	1
14 Salad Dressings	83104000	French or Catalina dressing	0.5	1
14 Salad Dressings	83105500	Honey mustard dressing	0.5	1
14 Salad Dressings	83106000	Italian dressing, made with vinegar and oil	0.5	1
14 Salad Dressings	83109000	Russian dressing	0.5	1
14 Salad Dressings	83112000	Avocado dressing	0.5	1
14 Salad Dressings	83112500	Creamy dressing	0.5	1
14 Salad Dressings	83112950	Poppy seed dressing	0.5	1
14 Salad Dressings	83112990	Sesame dressing	0.5	1
14 Salad Dressings	83114000	Thousand Island dressing	0.5	1
14 Salad Dressings	83115000	Yogurt dressing	0.5	1
14 Salad Dressings	83200100	Salad dressing, light, NFS	0.5	1
14 Salad Dressings	83201000	Blue or roquefort cheese dressing, light	0.5	1
14 Salad Dressings	83201400	Coleslaw dressing, light	0.5	1
14 Salad Dressings	83202020	French or Catalina dressing, light	0.5	1
14 Salad Dressings	83203000	Caesar dressing, light	0.5	1
14 Salad Dressings	83204500	Honey mustard dressing, light	0.5	1
14 Salad Dressings	83205450	Italian dressing, light	0.5	1
14 Salad Dressings	83206000	Russian dressing, light	0.5	1
14 Salad Dressings	83206500	Sesame dressing, light	0.5	1
14 Salad Dressings	83207000	Thousand Island dressing, light	0.5	1
14 Salad Dressings	83208500	Korean dressing or marinade	0.5	1
14 Salad Dressings	83210100	Creamy dressing, light	0.5	1
14 Salad Dressings	83300100	Blue or roquefort cheese dressing, fat free	0.5	1
14 Salad Dressings	83300200	Caesar dressing, fat free	0.5	1
14 Salad Dressings	83300300	Creamy dressing, fat free	0.5	1
14 Salad Dressings	83300400	French or Catalina dressing, fat free	0.5	1
14 Salad Dressings	83300500	Honey mustard dressing, fat free	0.5	1
14 Salad Dressings	83300600	Italian dressing, fat free	0.5	1
14 Salad Dressings	83300800	Russian dressing, fat free	0.5	1
14 Salad Dressings	83300900	Salad dressing, fat free, NFS	0.5	1
14 Salad Dressings	83301000	Thousand Island dressing, fat free	0.5	1
15 Surimi-Based Fish Products	27150250	Fish moochim	1	1
15 Surimi-Based Fish Products	27450130	Crab salad made with imitation crab	1	1
16 Battered Fried Fish Products	26100140	Fish, NS as to type, coated, fried, made with oil	0.3	1
16 Battered Fried Fish Products	26100141	Fish, NS as to type, coated, fried, made with butter	0.3	1
16 Battered Fried Fish Products	26100142	Fish, NS as to type, coated, fried, made with margarine	0.3	1
16 Battered Fried Fish Products	26100143	Fish, NS as to type, coated, fried, no added fat	0.3	1
16 Battered Fried Fish Products	26100144	Fish, NS as to type, coated, fried, made with cooking spray	0.3	1
16 Battered Fried Fish Products	26103140	Barracuda, coated, fried	0.3	1
16 Battered Fried Fish Products	26105140	Carp, coated, fried	0.3	1
16 Battered Fried Fish Products	26107140	Catfish, coated, fried, made with oil	0.3	1
16 Battered Fried Fish Products	26107141	Catfish, coated, fried, made with butter	0.3	1
16 Battered Fried Fish Products	26107142	Catfish, coated, fried, made with margarine	0.3	1
16 Battered Fried Fish Products	26107143	Catfish, coated, fried, no added fat	0.3	1
16 Battered Fried Fish Products	26107144	Catfish, coated, fried, made with cooking spray	0.3	1
16 Battered Fried Fish Products	26109140	Cod, coated, fried, made with oil	0.3	1
16 Battered Fried Fish Products	26109141	Cod, coated, fried, made with butter	0.3	1

16 Battered Fried Fish Products	26109142	Cod, coated, fried, made with margarine	0.3	1
16 Battered Fried Fish Products	26109143	Cod, coated, fried, no added fat	0.3	1
16 Battered Fried Fish Products	26109144	Cod, coated, fried, made with cooking spray	0.3	1
16 Battered Fried Fish Products	26111140	Croaker, coated, fried	0.3	1
16 Battered Fried Fish Products	26115140	Flounder, coated, fried, made with oil	0.3	1
16 Battered Fried Fish Products	26115141	Flounder, coated, fried, made with butter	0.3	1
16 Battered Fried Fish Products	26115142	Flounder, coated, fried, made with margarine	0.3	1
16 Battered Fried Fish Products	26115143	Flounder, coated, fried, no added fat	0.3	1
16 Battered Fried Fish Products	26115144	Flounder, coated, fried, made with cooking spray	0.3	1
16 Battered Fried Fish Products	26117140	Haddock, coated, fried	0.3	1
16 Battered Fried Fish Products	26118040	Halibut, coated, fried, made with oil	0.3	1
16 Battered Fried Fish Products	26118041	Halibut, coated, fried, made with butter	0.3	1
16 Battered Fried Fish Products	26118042	Halibut, coated, fried, made with margarine	0.3	1
16 Battered Fried Fish Products	26118043	Halibut, coated, fried, no added fat	0.3	1
16 Battered Fried Fish Products	26118044	Halibut, coated, fried, made with cooking spray	0.3	1
16 Battered Fried Fish Products	26119140	Herring, coated, fried	0.3	1
16 Battered Fried Fish Products	26121140	Mackerel, coated, fried	0.3	1
16 Battered Fried Fish Products	26123140	Mullet, coated, fried	0.3	1
16 Battered Fried Fish Products	26125140	Ocean perch, coated, fried	0.3	1
16 Battered Fried Fish Products	26127140	Perch, coated, fried, made with oil	0.3	1
16 Battered Fried Fish Products	26127141	Perch, coated, fried, made with butter	0.3	1
16 Battered Fried Fish Products	26127142	Perch, coated, fried, made with margarine	0.3	1
16 Battered Fried Fish Products	26127143	Perch, coated, fried, no added fat	0.3	1
16 Battered Fried Fish Products	26127144	Perch, coated, fried, made with cooking spray	0.3	1
16 Battered Fried Fish Products	26129140	Pike, coated, fried	0.3	1
16 Battered Fried Fish Products	26131140	Pompano, coated, fried	0.3	1
16 Battered Fried Fish Products	26133140	Porgy, coated, fried	0.3	1
16 Battered Fried Fish Products	26135140	Ray, coated, fried	0.3	1
16 Battered Fried Fish Products	26137140	Salmon, coated, fried, made with oil	0.3	1
16 Battered Fried Fish Products	26137141	Salmon, coated, fried, made with butter	0.3	1
16 Battered Fried Fish Products	26137142	Salmon, coated, fried, made with margarine	0.3	1
16 Battered Fried Fish Products	26137143	Salmon, coated, fried, no added fat	0.3	1
16 Battered Fried Fish Products	26137144	Salmon, coated, fried, made with cooking spray	0.3	1
16 Battered Fried Fish Products	26141140	Sea bass, coated, fried	0.3	1
16 Battered Fried Fish Products	26143140	Shark, coated, fried	0.3	1
16 Battered Fried Fish Products	26147140	Sturgeon, coated, fried	0.3	1
16 Battered Fried Fish Products	26149140	Swordfish, coated, fried	0.3	1
16 Battered Fried Fish Products	26151140	Trout, coated, fried, made with oil	0.3	1
16 Battered Fried Fish Products	26151141	Trout, coated, fried, made with butter	0.3	1
16 Battered Fried Fish Products	26151142	Trout, coated, fried, made with margarine	0.3	1
16 Battered Fried Fish Products	26151143	Trout, coated, fried, no added fat	0.3	1
16 Battered Fried Fish Products	26151144	Trout, coated, fried, made with cooking spray	0.3	1
16 Battered Fried Fish Products	26153140	Tuna, fresh, coated, fried	0.3	1
16 Battered Fried Fish Products	26157140	Whiting, coated, fried, made with oil	0.3	1
16 Battered Fried Fish Products	26157141	Whiting, coated, fried, made with butter	0.3	1
16 Battered Fried Fish Products	26157142	Whiting, coated, fried, made with margarine	0.3	1
16 Battered Fried Fish Products	26157143	Whiting, coated, fried, no added fat	0.3	1
16 Battered Fried Fish Products	26157144	Whiting, coated, fried, made with cooking spray	0.3	1
16 Battered Fried Fish Products	26158030	Tilapia, coated, fried, made with oil	0.3	1
16 Battered Fried Fish Products	26158031	Tilapia, coated, fried, made with butter	0.3	1
16 Battered Fried Fish Products	26158032	Tilapia, coated, fried, made with margarine	0.3	1
16 Battered Fried Fish Products	26158033	Tilapia, coated, fried, no added fat	0.3	1
16 Battered Fried Fish Products	26158034	Tilapia, coated, fried, made with cooking spray	0.3	1
16 Battered Fried Fish Products	26213140	Squid, coated, fried	0.3	1
16 Battered Fried Fish Products	26303140	Clams, coated, fried	0.3	1
16 Battered Fried Fish Products	26307140	Crab, soft shell, coated, fried	0.3	1
16 Battered Fried Fish Products	26309140	Crayfish, coated, fried	0.3	1
16 Battered Fried Fish Products	26311140	Lobster, coated, fried	0.3	1
16 Battered Fried Fish Products	26315140	Oysters, coated, fried	0.3	1
16 Battered Fried Fish Products	26317140	Scallops, coated, fried	0.3	1
16 Battered Fried Fish Products	26319140	Shrimp, coated, fried, made with oil	0.3	1
16 Battered Fried Fish Products	26319141	Shrimp, coated, fried, made with butter	0.3	1
16 Battered Fried Fish Products	26319142	Shrimp, coated, fried, made with margarine	0.3	1
16 Battered Fried Fish Products	26319143	Shrimp, coated, fried, no added fat	0.3	1
16 Battered Fried Fish Products	26319144	Shrimp, coated, fried, made with cooking spray	0.3	1
16 Battered Fried Fish Products	26319145	Shrimp, coated, fried, from fast food / restaurant	0.3	1
16 Battered Fried Fish Products	27450150	Fish, tofu, and vegetables, tempura	0.3	1
16 Battered Fried Fish Products	99992610	Fish fillet, fried as ingredient in sandwiches	0.3	1
17 Raw Fruits	61100600	Clementine, raw	0.0083	1
17 Raw Fruits	61101010	Grapefruit, raw	0.0083	1
17 Raw Fruits	61110010	Kumquat, raw	0.0083	1
17 Raw Fruits	61113010	Lemon, raw	0.0083	1
17 Raw Fruits	61116010	Lime, raw	0.0083	1
17 Raw Fruits	61119010	Orange, raw	0.0083	1
17 Raw Fruits	61125010	Tangerine, raw	0.0083	1
17 Raw Fruits	62110100	Date	0.0083	1
17 Raw Fruits	63100100	Fruit, NFS	0.0083	1
17 Raw Fruits	63101000	Apple, raw	0.0083	1
17 Raw Fruits	63103010	Apricot, raw	0.0083	1
17 Raw Fruits	63105010	Avocado, raw	0.0083	1
17 Raw Fruits	63107010	Banana, raw	0.0083	1
17 Raw Fruits	63109010	Cantaloupe, raw	0.0083	1
17 Raw Fruits	63109700	Starfruit, raw	0.0083	1
17 Raw Fruits	63110010	Cassaba melon, raw	0.0083	1
17 Raw Fruits	63115010	Cherries, raw	0.0083	1
17 Raw Fruits	63119010	Fig, raw	0.0083	1
17 Raw Fruits	63123000	Grapes, raw	0.0083	1
17 Raw Fruits	63125010	Guava, raw	0.0083	1
17 Raw Fruits	63126500	Kiwi fruit, raw	0.0083	1
17 Raw Fruits	63127010	Honeydew melon, raw	0.0083	1

17 Raw Fruits	63129010	Mango, raw	0.0083	1
17 Raw Fruits	63131010	Nectarine, raw	0.0083	1
17 Raw Fruits	63133010	Papaya, raw	0.0083	1
17 Raw Fruits	63134010	Passion fruit, raw	0.0083	1
17 Raw Fruits	63135010	Peach, raw	0.0083	1
17 Raw Fruits	63137010	Pear, raw	0.0083	1
17 Raw Fruits	63137050	Pear, Asian, raw	0.0083	1
17 Raw Fruits	63139010	Persimmon, raw	0.0083	1
17 Raw Fruits	63141010	Pineapple, raw	0.0083	1
17 Raw Fruits	63143010	Plum, raw	0.0083	1
17 Raw Fruits	63145010	Pomegranate, raw	0.0083	1
17 Raw Fruits	63149010	Watermelon, raw	0.0083	1
17 Raw Fruits	63200100	Berries, NFS	0.0083	1
17 Raw Fruits	63201010	Blackberries, raw	0.0083	1
17 Raw Fruits	63203010	Blueberries, raw	0.0083	1
17 Raw Fruits	63207010	Cranberries, raw	0.0083	1
17 Raw Fruits	63219000	Raspberries, raw	0.0083	1
17 Raw Fruits	63223020	Strawberries, raw	0.0083	1
17 Raw Fruits	63311000	Fruit salad, fresh or raw, excluding citrus fruits, no dressing	0.0083	1
17 Raw Fruits	63311050	Fruit salad, fresh or raw, including citrus fruits, no dressing	0.0083	1
18 Ice Cream, Ice Milk, and Sherbet	13110000	Ice cream, NFS	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13110100	Ice cream, vanilla	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13110102	Ice cream, vanilla, with additional ingredients	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13110110	Ice cream, chocolate	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13110112	Ice cream, chocolate, with additional ingredients	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13110200	Ice cream, soft serve, vanilla	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13110210	Ice cream, soft serve, chocolate	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120050	Ice cream bar, vanilla	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120100	Ice cream bar, vanilla, chocolate coated	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120110	Ice cream candy bar	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120140	Ice cream bar, chocolate	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120500	Ice cream sandwich, vanilla	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120510	Ice cream sandwich, chocolate	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120550	Ice cream cookie sandwich	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120730	Ice cream cone, scooped, vanilla	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120735	Ice cream cone, scooped, vanilla, waffle cone	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120740	Ice cream cone, NFS	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120770	Ice cream cone, scooped, chocolate	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120775	Ice cream cone, scooped, chocolate, waffle cone	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120782	Ice cream cone, soft serve, vanilla	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120784	Ice cream cone, soft serve, chocolate	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120786	Ice cream cone, soft serve, vanilla, waffle cone	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120788	Ice cream cone, soft serve, chocolate, waffle cone	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120790	Ice cream cone, vanilla, prepackaged	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120792	Ice cream cone, chocolate, prepackaged	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120800	Ice cream soda, flavors other than chocolate	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13120810	Ice cream soda, chocolate	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13121000	Ice cream sundae, NFS	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13121100	Ice cream sundae, fruit topping	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13121120	Banana split	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13121300	Ice cream sundae, hot fudge topping	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13121400	Ice cream sundae, caramel topping	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13126000	Ice cream, fried	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13130100	Light ice cream, NFS	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13130300	Light ice cream, vanilla	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13130310	Light ice cream, chocolate	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13130700	Soft serve, blended with candy or cookies, from fast food	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13135000	Light ice cream sandwich, vanilla	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13135010	Light ice cream sandwich, chocolate	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13140000	Light ice cream bar, vanilla	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13140100	Light ice cream bar, vanilla, chocolate coated	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13140115	Light ice cream bar, chocolate	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13140700	Creamsicle	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13140710	Creamsicle, light	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13140900	Fudgesicle	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13142100	Light ice cream cone, vanilla, prepackaged	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13142110	Light ice cream cone, chocolate, prepackaged	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13150000	Sherbet, all flavors	0.3	1
18 Ice Cream, Ice Milk, and Sherbet	13161600	Fudgesicle, light	0.3	1
19 Cereal Bars	53710400	Cereal or granola bar (General Mills Fiber One Chewy Bar)	0.2	1
19 Cereal Bars	53710500	Cereal or granola bar (Kellogg's Nutri-Grain Cereal Bar)	0.2	1
19 Cereal Bars	53710502	Cereal or granola bar (Kellogg's Nutri-Grain Yogurt Bar)	0.2	1
19 Cereal Bars	53710504	Cereal or granola bar (Kellogg's Nutri-Grain Fruit and Nut Bar)	0.2	1
19 Cereal Bars	53710600	Milk 'n Cereal bar	0.2	1
19 Cereal Bars	53710700	Cereal or granola bar (Kellogg's Special K bar)	0.2	1
19 Cereal Bars	53710800	Cereal or granola bar (Kashi Chewy)	0.2	1
19 Cereal Bars	53710802	Cereal or granola bar (Kashi Crunchy)	0.2	1
19 Cereal Bars	53710810	Cereal or granola bar (KIND Fruit and Nut Bar)	0.2	1
19 Cereal Bars	53710900	Cereal or granola bar (General Mills Nature Valley Chewy Trail Mix)	0.2	1
19 Cereal Bars	53710902	Cereal or granola bar, with yogurt coating (General Mills Nature Valley Chewy)	0.2	1
19 Cereal Bars	53710904	Cereal or granola bar (General Mills Nature Valley Sweet and Salty Granola Bar)	0.2	1
19 Cereal Bars	53710906	Cereal or granola bar (General Mills Nature Valley Crunchy Granola Bar)	0.2	1
19 Cereal Bars	53711000	Cereal or granola bar (Quaker Chewy Granola Bar)	0.2	1
19 Cereal Bars	53711002	Cereal or granola bar (Quaker Chewy 90 Calorie Granola Bar)	0.2	1
19 Cereal Bars	53711004	Cereal or granola bar (Quaker Chewy 25% Less Sugar Granola Bar)	0.2	1
19 Cereal Bars	53711006	Cereal or granola bar (Quaker Chewy Dipp's Granola Bar)	0.2	1
19 Cereal Bars	53711100	Cereal or granola bar (Quaker Granola Bites)	0.2	1
19 Cereal Bars	53712000	Snack bar, oatmeal	0.2	1
19 Cereal Bars	53712100	Cereal or Granola bar, NFS	0.2	1
19 Cereal Bars	53712200	Cereal or granola bar, lowfat, NFS	0.2	1

19 Cereal Bars	53712210	Cereal or granola bar, nonfat	0.2	1
19 Cereal Bars	53713000	Cereal or granola bar, reduced sugar, NFS	0.2	1
19 Cereal Bars	53713010	Cereal or granola bar, fruit and nut	0.2	1
19 Cereal Bars	53713100	Cereal or granola bar, peanuts , oats, sugar, wheat germ	0.2	1
19 Cereal Bars	53714230	Cereal or granola bar, oats, nuts, coated with non-chocolate coating	0.2	1
19 Cereal Bars	53714250	Cereal or granola bar, coated with non-chocolate coating	0.2	1
19 Cereal Bars	53714300	Cereal or granola bar, high fiber, coated with non-chocolate yogurt coating	0.2	1
19 Cereal Bars	53714400	Cereal or granola bar, with rice cereal	0.2	1
19 Cereal Bars	53714500	Breakfast bar, NFS	0.2	1
19 Cereal Bars	53714510	Breakfast bar, date, with yogurt coating	0.2	1
19 Cereal Bars	53714520	Breakfast bar, cereal crust with fruit filling, lowfat	0.2	1
20 Sauces and Cooking Sauces	13411000	White sauce or gravy	0.5	1
20 Sauces and Cooking Sauces	14650100	Cheese sauce	0.5	1
20 Sauces and Cooking Sauces	14650160	Alfredo sauce	0.5	1
20 Sauces and Cooking Sauces	14650165	Alfredo sauce with added vegetables	0.5	1
20 Sauces and Cooking Sauces	14650170	Alfredo sauce with meat	0.5	1
20 Sauces and Cooking Sauces	14650175	Alfredo sauce with meat and added vegetables	0.5	1
20 Sauces and Cooking Sauces	14650180	Alfredo sauce with poultry	0.5	1
20 Sauces and Cooking Sauces	14650185	Alfredo sauce with poultry and added vegetables	0.5	1
20 Sauces and Cooking Sauces	14650190	Alfredo sauce with seafood	0.5	1
20 Sauces and Cooking Sauces	14650195	Alfredo sauce with seafood and added vegetables	0.5	1
20 Sauces and Cooking Sauces	21304200	Beef, shortribs, barbecued, with sauce, NS as to fat eaten	0.5	0.3
20 Sauces and Cooking Sauces	21304210	Beef, shortribs, barbecued, with sauce, lean and fat eaten	0.5	0.3
20 Sauces and Cooking Sauces	21304220	Beef, shortribs, barbecued, with sauce, lean only eaten	0.5	0.3
20 Sauces and Cooking Sauces	22701030	Pork, spareribs, barbecued, with sauce, NS as to fat eaten	0.5	0.3
20 Sauces and Cooking Sauces	22701040	Pork, spareribs, barbecued, with sauce, lean and fat eaten	0.5	0.3
20 Sauces and Cooking Sauces	22701050	Pork, spareribs, barbecued, with sauce, lean only eaten	0.5	0.3
20 Sauces and Cooking Sauces	27111000	Beef with tomato-based sauce	0.5	0.298
20 Sauces and Cooking Sauces	27111300	Beef stew, no potatoes, tomato-based sauce, Mexican style	0.5	0.51
20 Sauces and Cooking Sauces	27111310	Beef stew, no potatoes, tomato-based sauce, with chili peppers, Mexican style	0.5	0.51
20 Sauces and Cooking Sauces	27112000	Beef with gravy	0.5	0.298
20 Sauces and Cooking Sauces	27112010	Salisbury steak with gravy	0.5	0.51
20 Sauces and Cooking Sauces	27113000	Beef with cream or white sauce	0.5	0.298
20 Sauces and Cooking Sauces	27113200	Creamed chipped or dried beef	0.5	1
20 Sauces and Cooking Sauces	27113300	Swedish meatballs with cream or white sauce	0.5	0.51
20 Sauces and Cooking Sauces	27114000	Beef with mushroom sauce	0.5	0.51
20 Sauces and Cooking Sauces	27115000	Beef with soy-based sauce	0.5	0.467437328
20 Sauces and Cooking Sauces	27115100	Steak teriyaki	0.5	0.12
20 Sauces and Cooking Sauces	27116200	Beef with barbecue sauce	0.5	0.3
20 Sauces and Cooking Sauces	27116300	Beef with sweet and sour sauce	0.5	0.580399009
20 Sauces and Cooking Sauces	27118180	Beef stew, meat with gravy, no potatoes, Puerto Rican style	0.5	0.593628496
20 Sauces and Cooking Sauces	27120020	Ham or pork with gravy	0.5	0.3
20 Sauces and Cooking Sauces	27120030	Ham or pork with barbecue sauce	0.5	0.3
20 Sauces and Cooking Sauces	27120060	Sweet and sour pork	0.5	0.580399009
20 Sauces and Cooking Sauces	27120090	Ham or pork with mushroom sauce	0.5	0.51
20 Sauces and Cooking Sauces	27120100	Ham or pork with tomato-based sauce	0.5	0.51
20 Sauces and Cooking Sauces	27120110	Sausage with tomato-based sauce	0.5	0.51
20 Sauces and Cooking Sauces	27120120	Sausage gravy	0.5	0.8
20 Sauces and Cooking Sauces	27120130	Pork stew, no potatoes, tomato-based sauce, Mexican style	0.5	0.51
20 Sauces and Cooking Sauces	27120150	Pork or ham with soy-based sauce	0.5	0.542711204
20 Sauces and Cooking Sauces	27120250	Frankfurters or hot dogs with tomato-based sauce	0.5	0.51
20 Sauces and Cooking Sauces	27130010	Lamb or mutton with gravy	0.5	0.3
20 Sauces and Cooking Sauces	27135010	Veal with gravy	0.5	0.3
20 Sauces and Cooking Sauces	27135030	Veal with cream sauce	0.5	0.51
20 Sauces and Cooking Sauces	27135040	Veal with butter sauce	0.5	0.51
20 Sauces and Cooking Sauces	27136050	Venison or deer with tomato-based sauce	0.5	0.51
20 Sauces and Cooking Sauces	27141030	Spaghetti sauce with poultry	0.5	1
20 Sauces and Cooking Sauces	27141035	Spaghetti sauce with poultry and added vegetables	0.5	1
20 Sauces and Cooking Sauces	27141050	Stewed chicken with tomato-based sauce, Mexican style	0.5	0.51
20 Sauces and Cooking Sauces	27142000	Chicken with gravy	0.5	0.3
20 Sauces and Cooking Sauces	27142200	Turkey with gravy	0.5	0.3
20 Sauces and Cooking Sauces	27143000	Chicken or turkey with cream sauce	0.5	0.3
20 Sauces and Cooking Sauces	27144000	Chicken or turkey with mushroom sauce	0.5	0.51
20 Sauces and Cooking Sauces	27145000	Chicken or turkey with teriyaki	0.5	0.1
20 Sauces and Cooking Sauces	27146011	Chicken, shredded or pulled, with barbecue sauce	0.5	0.51
20 Sauces and Cooking Sauces	27146100	Sweet and sour chicken or turkey	0.5	1
20 Sauces and Cooking Sauces	27146160	Chicken with mole sauce	0.5	0.51
20 Sauces and Cooking Sauces	27146200	Chicken or turkey with cheese sauce	0.5	0.51
20 Sauces and Cooking Sauces	27150010	Fish with cream or white sauce, not tuna or lobster	0.5	0.51
20 Sauces and Cooking Sauces	27150070	Lobster with butter sauce	0.5	0.51
20 Sauces and Cooking Sauces	27150120	Tuna with cream or white sauce	0.5	0.51
20 Sauces and Cooking Sauces	27150140	Seafood sauce	0.5	1
20 Sauces and Cooking Sauces	27150151	Spaghetti sauce with seafood	0.5	1
20 Sauces and Cooking Sauces	27150155	Spaghetti sauce with seafood and added vegetables	0.5	1
20 Sauces and Cooking Sauces	27150160	Shrimp with lobster sauce	0.5	0.3
20 Sauces and Cooking Sauces	27150170	Sweet and sour shrimp	0.5	0.583421283
20 Sauces and Cooking Sauces	27150210	Fish sauce	0.5	1
20 Sauces and Cooking Sauces	27150310	Fish with tomato-based sauce	0.5	0.51
20 Sauces and Cooking Sauces	27150330	Mussels with tomato-based sauce	0.5	0.51
20 Sauces and Cooking Sauces	27150350	Sardines with tomato-based sauce	0.5	0.51
20 Sauces and Cooking Sauces	27150410	Shrimp teriyaki	0.5	0.12
20 Sauces and Cooking Sauces	27150510	Scallops with cheese sauce	0.5	0.51
20 Sauces and Cooking Sauces	27151040	Crabs in tomato-based sauce, Puerto Rican style	0.5	0.51
20 Sauces and Cooking Sauces	27151050	Shrimp in garlic sauce, Puerto Rican style	0.5	0.51
20 Sauces and Cooking Sauces	27160010	Meat with barbecue sauce, NS as to type of meat	0.5	0.3
20 Sauces and Cooking Sauces	27160100	Meatballs, NS as to type of meat, with sauce	0.5	0.51
20 Sauces and Cooking Sauces	27162010	Meat with tomato-based sauce	0.5	0.51
20 Sauces and Cooking Sauces	27162040	Spaghetti sauce with meat	0.5	1
20 Sauces and Cooking Sauces	27162060	Spaghetti sauce with meat and added vegetables	0.5	1
20 Sauces and Cooking Sauces	27163010	Meat with gravy, NS as to type of meat,	0.5	0.3

20 Sauces and Cooking Sauces	27211200	Beef stew with potatoes, gravy	0.5	0.51
20 Sauces and Cooking Sauces	27212200	Beef and noodles with gravy	0.5	0.51
20 Sauces and Cooking Sauces	27213200	Beef and rice with gravy	0.5	0.51
20 Sauces and Cooking Sauces	27220510	Ham or pork and potatoes with gravy	0.5	0.51
20 Sauces and Cooking Sauces	27231000	Lamb or mutton and potatoes with gravy	0.5	0.51
20 Sauces and Cooking Sauces	27233000	Lamb or mutton and noodles with gravy	0.5	0.51
20 Sauces and Cooking Sauces	27241010	Chicken or turkey and potatoes with gravy	0.5	0.51
20 Sauces and Cooking Sauces	27242200	Chicken or turkey and noodles with gravy	0.5	0.51
20 Sauces and Cooking Sauces	27250122	Shrimp and noodles with gravy	0.5	0.51
20 Sauces and Cooking Sauces	27260050	Meatballs, with breading, NS as to type of meat, with gravy	0.5	0.51
20 Sauces and Cooking Sauces	28500000	Gravy, poultry	0.5	1
20 Sauces and Cooking Sauces	28500040	Gravy, beef	0.5	1
20 Sauces and Cooking Sauces	28501010	Gravy, beef, fat free	0.5	1
20 Sauces and Cooking Sauces	28501110	Gravy, poultry, fat free	0.5	1
20 Sauces and Cooking Sauces	28520000	Gravy, made with soy sauce	0.5	1
20 Sauces and Cooking Sauces	28520010	Gravy, NFS	0.5	1
20 Sauces and Cooking Sauces	28520100	Oyster sauce	0.5	1
20 Sauces and Cooking Sauces	28522000	Mole sauce	0.5	1
20 Sauces and Cooking Sauces	41205100	Black bean sauce	0.5	1
20 Sauces and Cooking Sauces	41420100	Miso sauce	0.5	1
20 Sauces and Cooking Sauces	41420250	Hoisin sauce	0.5	1
20 Sauces and Cooking Sauces	41420300	Soy sauce	0.5	1
20 Sauces and Cooking Sauces	41420350	Soy sauce, reduced sodium	0.5	1
20 Sauces and Cooking Sauces	41420400	Teriyaki sauce	0.5	1
20 Sauces and Cooking Sauces	41420410	Teriyaki sauce, reduced sodium	0.5	1
20 Sauces and Cooking Sauces	41420450	Worcestershire sauce	0.5	1
20 Sauces and Cooking Sauces	41811950	Swiss steak, with gravy, meatless	0.5	1
20 Sauces and Cooking Sauces	42204050	Peanut sauce	0.5	1
20 Sauces and Cooking Sauces	42204100	Gravy, vegetarian	0.5	1
20 Sauces and Cooking Sauces	74404010	Spaghetti sauce	0.5	1
20 Sauces and Cooking Sauces	74404020	Spaghetti sauce with added vegetables	0.5	1
20 Sauces and Cooking Sauces	74404050	Spaghetti sauce, reduced sodium	0.5	1
20 Sauces and Cooking Sauces	74404060	Spaghetti sauce, fat free	0.5	1
20 Sauces and Cooking Sauces	74404090	Vodka sauce with tomatoes and cream	0.5	1
20 Sauces and Cooking Sauces	74406010	Barbecue sauce	0.5	1
20 Sauces and Cooking Sauces	74406060	Buffalo sauce	0.5	1
20 Sauces and Cooking Sauces	74406100	Steak sauce	0.5	1
20 Sauces and Cooking Sauces	81301000	Garlic sauce	0.5	1
20 Sauces and Cooking Sauces	81301020	Lemon-butter sauce	0.5	1
20 Sauces and Cooking Sauces	81302010	Hollandaise sauce	0.5	1
20 Sauces and Cooking Sauces	81302070	Pesto sauce	0.5	1
20 Sauces and Cooking Sauces	81312100	Curry sauce	0.5	1
20 Sauces and Cooking Sauces	89901010	Cream sauce, for use with vegetables	0.5	1
20 Sauces and Cooking Sauces	89901020	Cheese sauce, for use with vegetables	0.5	1
20 Sauces and Cooking Sauces	89901030	Gravy, for use with vegetables	0.5	1
20 Sauces and Cooking Sauces	89901040	Soy based sauce, for use with vegetables	0.5	1
20 Sauces and Cooking Sauces	89901050	Tomato sauce, for use with vegetables	0.5	1
21 Battered Fried Meat Products	21104110	Beef steak, battered, fried, NS as to fat eaten	0.3	1
21 Battered Fried Meat Products	21104120	Beef steak, battered, fried, lean and fat eaten	0.3	1
21 Battered Fried Meat Products	21104130	Beef steak, battered, fried, lean only eaten	0.3	1
21 Battered Fried Meat Products	22101400	Pork chop, battered, fried, NS as to fat eaten	0.3	1
21 Battered Fried Meat Products	22101410	Pork chop, battered, fried, lean and fat eaten	0.3	1
21 Battered Fried Meat Products	22101420	Pork chop, battered, fried, lean only eaten	0.3	1
21 Battered Fried Meat Products	22201050	Pork steak or cutlet, battered, fried, NS as to fat eaten	0.3	1
21 Battered Fried Meat Products	22201060	Pork steak or cutlet, battered, fried, lean and fat eaten	0.3	1
21 Battered Fried Meat Products	22201070	Pork steak or cutlet, battered, fried, lean only eaten	0.3	1
21 Battered Fried Meat Products	22210450	Pork, tenderloin, battered, fried	0.3	1
21 Battered Fried Meat Products	99995000	Breading or batter as ingredient in food	0.3	1
22 Dairy-Based Toppings	12140000	Cream, whipped	2	1
23 Battered Fried Poultry Products	24107070	Chicken, NS as to part, fried, coated, skin / coating eaten	0.3	1
23 Battered Fried Poultry Products	24107071	Chicken, NS as to part, fried, coated, skin / coating not eaten	0.3	1
23 Battered Fried Poultry Products	24127200	Chicken breast, fried, coated, skin / coating eaten, from raw	0.3	1
23 Battered Fried Poultry Products	24127201	Chicken breast, fried, coated, skin / coating not eaten, from raw	0.3	1
23 Battered Fried Poultry Products	24127202	Chicken breast, fried, coated, prepared skinless, coating eaten, from raw	0.3	1
23 Battered Fried Poultry Products	24127210	Chicken breast, fried, coated, skin / coating eaten, from pre-cooked	0.3	1
23 Battered Fried Poultry Products	24127211	Chicken breast, fried, coated, skin / coating not eaten, from pre-cooked	0.3	1
23 Battered Fried Poultry Products	24127220	Chicken breast, fried, coated, skin / coating eaten, from fast food / restaurant	0.3	1
23 Battered Fried Poultry Products	24127221	Chicken breast, fried, coated, skin / coating not eaten, from fast food / restaurant	0.3	1
23 Battered Fried Poultry Products	24137300	Chicken leg, drumstick and thigh, fried, coated, skin / coating eaten	0.3	1
23 Battered Fried Poultry Products	24137301	Chicken leg, drumstick and thigh, fried, coated, skin / coating not eaten	0.3	1
23 Battered Fried Poultry Products	24147300	Chicken drumstick, fried, coated, skin / coating eaten, from raw	0.3	1
23 Battered Fried Poultry Products	24147301	Chicken drumstick, fried, coated, skin / coating not eaten, from raw	0.3	1
23 Battered Fried Poultry Products	24147302	Chicken drumstick, fried, coated, prepared skinless, coating eaten, from raw	0.3	1
23 Battered Fried Poultry Products	24147310	Chicken drumstick, fried, coated, skin / coating eaten, from pre-cooked	0.3	1
23 Battered Fried Poultry Products	24147311	Chicken drumstick, fried, coated, skin / coating not eaten, from pre-cooked	0.3	1
23 Battered Fried Poultry Products	24147320	Chicken drumstick, fried, coated, skin / coating eaten, from fast food / restaurant	0.3	1
23 Battered Fried Poultry Products	24147321	Chicken drumstick, fried, coated, skin / coating not eaten, from fast food / restaurant	0.3	1
23 Battered Fried Poultry Products	24157300	Chicken thigh, fried, coated, skin / coating eaten, from raw	0.3	1
23 Battered Fried Poultry Products	24157301	Chicken thigh, fried, coated, skin / coating not eaten, from raw	0.3	1
23 Battered Fried Poultry Products	24157302	Chicken thigh, fried, coated, prepared skinless, coating eaten, from raw	0.3	1
23 Battered Fried Poultry Products	24157310	Chicken thigh, fried, coated, skin / coating eaten, from pre-cooked	0.3	1
23 Battered Fried Poultry Products	24157311	Chicken thigh, fried, coated, skin / coating not eaten, from pre-cooked	0.3	1
23 Battered Fried Poultry Products	24157320	Chicken thigh, fried, coated, skin / coating eaten, from fast food	0.3	1
23 Battered Fried Poultry Products	24157321	Chicken thigh, fried, coated, skin / coating not eaten, from fast food	0.3	1
23 Battered Fried Poultry Products	24157330	Chicken thigh, fried, coated, skin / coating eaten, from restaurant	0.3	1
23 Battered Fried Poultry Products	24157331	Chicken thigh, fried, coated, skin / coating not eaten, from restaurant	0.3	1
23 Battered Fried Poultry Products	24167200	Chicken wing, fried, coated, from raw	0.3	1
23 Battered Fried Poultry Products	24167210	Chicken wing, fried, coated, from pre-cooked	0.3	1
23 Battered Fried Poultry Products	24167220	Chicken wing, fried, coated, from fast food	0.3	1
23 Battered Fried Poultry Products	24167230	Chicken wing, fried, coated, from restaurant	0.3	1

23 Battered Fried Poultry Products	24201360	Turkey, light or dark meat, fried, coated, skin not eaten	0.3	1
23 Battered Fried Poultry Products	24201370	Turkey, light or dark meat, fried, coated, skin eaten	0.3	1
24 Processed Fruit Filling Preparations	61113500	Lemon pie filling	0.5	1
24 Processed Fruit Filling Preparations	63101210	Apple pie filling	0.5	1
24 Processed Fruit Filling Preparations	63113030	Cherry pie filling	0.5	1
24 Processed Fruit Filling Preparations	63203700	Blueberry pie filling	0.5	1
25 Battered Fried Vegetable Products	72202030	Fried broccoli	0.3	1
25 Battered Fried Vegetable Products	75409020	Fried cauliflower	0.3	1
25 Battered Fried Vegetable Products	75410550	Stuffed jalapeno pepper	0.3	1
25 Battered Fried Vegetable Products	75411020	Corn fritter	0.3	1
25 Battered Fried Vegetable Products	75412010	Fried eggplant	0.3	1
25 Battered Fried Vegetable Products	75414030	Fried mushrooms	0.3	1
25 Battered Fried Vegetable Products	75414500	Fried okra	0.3	1
25 Battered Fried Vegetable Products	75415022	Fried onion rings	0.3	1
25 Battered Fried Vegetable Products	75418010	Fried summer squash, yellow or green	0.3	1
25 Battered Fried Vegetable Products	75440200	Vegetable tempura	0.3	1
25 Battered Fried Vegetable Products	75440400	Pakora	0.3	1
26 Potato Stick Type Products	71205020	Potato sticks, plain	0.5	1
26 Potato Stick Type Products	71205030	Potato sticks, flavored	0.5	1
26 Potato Stick Type Products	71205040	Potato sticks, fry shaped	0.5	1
27 F-S Colors, Flavors, Nutraceuticals	11300100	Non-dairy milk, NFS	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	11320000	Soy milk	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	11320100	Soy milk, light	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	11320200	Soy milk, nonfat	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	11321000	Soy milk, chocolate	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	11321100	Soy milk, light, chocolate	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	11321200	Soy milk, nonfat, chocolate	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	11350000	Almond milk, sweetened	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	11350010	Almond milk, sweetened, chocolate	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	11350020	Almond milk, unsweetened	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	11350030	Almond milk, unsweetened, chocolate	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	11360000	Rice milk	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	11370000	Coconut milk	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	11400000	Yogurt, NFS	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11400010	Yogurt, Greek, NS as to type of milk or flavor	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11410000	Yogurt, NS as to type of milk or flavor	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11411010	Yogurt, NS as to type of milk, plain	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11411100	Yogurt, whole milk, plain	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11411200	Yogurt, low fat milk, plain	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11411300	Yogurt, nonfat milk, plain	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11411390	Yogurt, Greek, NS as to type of milk, plain	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11411400	Yogurt, Greek, whole milk, plain	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11411410	Yogurt, Greek, low fat milk, plain	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11411420	Yogurt, Greek, nonfat milk, plain	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11430000	Yogurt, NS as to type of milk, fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11431000	Yogurt, whole milk, fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11432000	Yogurt, low fat milk, fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11433000	Yogurt, nonfat milk, fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11433990	Yogurt, Greek, NS as to type of milk, fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11434000	Yogurt, Greek, whole milk, fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11434010	Yogurt, Greek, low fat milk, fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11434020	Yogurt, Greek, nonfat milk, fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11434090	Yogurt, NS as to type of milk, flavors other than fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11434100	Yogurt, whole milk, flavors other than fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11434200	Yogurt, low fat milk, flavors other than fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11434300	Yogurt, nonfat milk, flavors other than fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11435000	Yogurt, Greek, NS as to type of milk, flavors other than fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11435010	Yogurt, Greek, whole milk, flavors other than fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11435020	Yogurt, Greek, low fat milk, flavors other than fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11435030	Yogurt, Greek, nonfat milk, flavors other than fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11435100	Yogurt, Greek, with oats	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11436000	Yogurt, liquid	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11446000	Yogurt parfait, low fat, with fruit	0.0003	1
27 F-S Colors, Flavors, Nutraceuticals	11511000	Chocolate milk, NFS	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11511100	Chocolate milk, ready to drink, whole	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11511200	Chocolate milk, ready to drink, reduced fat	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11511300	Chocolate milk, ready to drink, fat free	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11511400	Chocolate milk, ready to drink, low fat	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11511550	Chocolate milk, ready to drink, reduced sugar, NS as to milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11511600	Chocolate milk, ready to drink, low fat (Nesquik)	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11511610	Chocolate milk, ready to drink, fat free (Nesquik)	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11511700	Chocolate milk, ready to drink, low fat, no sugar added (Nesquik)	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11512010	Hot chocolate / Cocoa, ready to drink	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11512020	Hot chocolate / Cocoa, ready to drink, made with nonfat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11512030	Hot chocolate / Cocoa, ready to drink, made with non-dairy milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11512100	Hot chocolate / Cocoa, ready to drink, with whipped cream	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11512110	Hot chocolate / Cocoa, ready to drink, made with nonfat milk and whipped cream	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11512120	Hot chocolate / Cocoa, ready to drink, made with non-dairy milk and whipped cream	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513000	Chocolate milk, made from dry mix, NS as to type of milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513100	Chocolate milk, made from dry mix with whole milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513150	Chocolate milk, made from dry mix with reduced fat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513200	Chocolate milk, made from dry mix with low fat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513300	Chocolate milk, made from dry mix with fat free milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513310	Chocolate milk, made from dry mix with non-dairy milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513350	Chocolate milk, made from reduced sugar mix, NS as to type of milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513355	Chocolate milk, made from reduced sugar mix with whole milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513360	Chocolate milk, made from reduced sugar mix with reduced fat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513365	Chocolate milk, made from reduced sugar mix with low fat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513370	Chocolate milk, made from reduced sugar mix with fat free milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513375	Chocolate milk, made from reduced sugar mix with non-dairy milk	0.0045	1

27 F-S Colors, Flavors, Nutraceuticals	11513380	Chocolate milk, made from dry mix, NS as to type of milk (Nesquik)	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513381	Chocolate milk, made from dry mix with whole milk (Nesquik)	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513382	Chocolate milk, made from dry mix with reduced fat milk (Nesquik)	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513383	Chocolate milk, made from dry mix with low fat milk (Nesquik)	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513384	Chocolate milk, made from dry mix with fat free milk (Nesquik)	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513385	Chocolate milk, made from dry mix with non-dairy milk (Nesquik)	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513390	Chocolate milk, made from no sugar added dry mix, NS as to type of milk (Nesc	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513391	Chocolate milk, made from no sugar added dry mix with whole milk (Nesquik)	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513392	Chocolate milk, made from no sugar added dry mix with reduced fat milk (Nesc	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513393	Chocolate milk, made from no sugar added dry mix with low fat milk (Nesquik)	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513394	Chocolate milk, made from no sugar added dry mix with fat free milk (Nesquik)	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513395	Chocolate milk, made from no sugar added dry mix with non-dairy milk (Nesqu	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513400	Chocolate milk, made from syrup, NS as to type of milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513500	Chocolate milk, made from syrup with whole milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513550	Chocolate milk, made from syrup with reduced fat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513600	Chocolate milk, made from syrup with low fat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513700	Chocolate milk, made from syrup with fat free milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513750	Chocolate milk, made from syrup with non-dairy milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513800	Chocolate milk, made from light syrup, NS as to type of milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513801	Chocolate milk, made from light syrup with whole milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513802	Chocolate milk, made from light syrup with reduced fat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513803	Chocolate milk, made from light syrup with low fat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513804	Chocolate milk, made from light syrup with fat free milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513805	Chocolate milk, made from light syrup with non-dairy milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513850	Chocolate milk, made from sugar free syrup, NS as to type of milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513851	Chocolate milk, made from sugar free syrup with whole milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513852	Chocolate milk, made from sugar free syrup with reduced fat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513853	Chocolate milk, made from sugar free syrup with low fat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513854	Chocolate milk, made from sugar free syrup with fat free milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11513855	Chocolate milk, made from sugar free syrup with non-dairy milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11514100	Hot chocolate / Cocoa, made with dry mix and water	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11514110	Hot chocolate / Cocoa, made with dry mix and whole milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11514120	Hot chocolate / Cocoa, made with dry mix and reduced fat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11514130	Hot chocolate / Cocoa, made with dry mix and low fat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11514140	Hot chocolate / Cocoa, made with dry mix and fat free milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11514150	Hot chocolate / Cocoa, made with dry mix and non-dairy milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11514310	Hot chocolate / Cocoa, made with no sugar added dry mix and water	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11514320	Hot chocolate / Cocoa, made with no sugar added dry mix and whole milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11514330	Hot chocolate / Cocoa, made with no sugar added dry mix and reduced fat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11514340	Hot chocolate / Cocoa, made with no sugar added dry mix and low fat milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11514350	Hot chocolate / Cocoa, made with no sugar added dry mix and fat free milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11514360	Hot chocolate / Cocoa, made with no sugar added dry mix and non-dairy milk	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11519040	Strawberry milk, NFS	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11519050	Strawberry milk, whole	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11519105	Strawberry milk, reduced fat	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11519200	Strawberry milk, low fat	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11519205	Strawberry milk, fat free	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11519210	Strawberry milk, reduced sugar	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11519215	Strawberry milk, non-dairy	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11526000	Milk, malted	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11531000	Eggnog	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11541400	Milk shake with malt	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11542100	Milk shake, fast food, chocolate	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11542200	Milk shake, fast food, flavors other than chocolate	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11543000	Milk shake, bottled, chocolate	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11543010	Milk shake, bottled, flavors other than chocolate	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11551050	Licudo or Batido	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11553100	Fruit smoothie, NFS	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11553110	Fruit smoothie, with whole fruit and dairy	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11553120	Fruit smoothie, with whole fruit and dairy, added protein	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11553130	Fruit smoothie juice drink, with dairy	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11560000	Chocolate milk drink	0.0045	1
27 F-S Colors, Flavors, Nutraceuticals	11830150	Cocoa powder, not reconstituted	0.0045	10.6
27 F-S Colors, Flavors, Nutraceuticals	11830160	Chocolate beverage powder, dry mix, not reconstituted	0.0045	10.6
27 F-S Colors, Flavors, Nutraceuticals	11830165	Chocolate beverage powder, light, dry mix, not reconstituted	0.0045	10.6
27 F-S Colors, Flavors, Nutraceuticals	11830260	Milk, malted, dry mix, not reconstituted	0.0045	10.6
27 F-S Colors, Flavors, Nutraceuticals	11830400	Strawberry beverage powder, dry mix, not reconstituted	0.0045	10.6
27 F-S Colors, Flavors, Nutraceuticals	12220200	Whipped topping	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	12220270	Whipped topping, fat free	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	12220280	Whipped topping, sugar free	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	12310100	Sour cream, regular	0.99	1
27 F-S Colors, Flavors, Nutraceuticals	12310350	Sour cream, light	0.99	1
27 F-S Colors, Flavors, Nutraceuticals	12310370	Sour cream, fat free	0.99	1
27 F-S Colors, Flavors, Nutraceuticals	12320100	Sour cream, imitation	0.99	1
27 F-S Colors, Flavors, Nutraceuticals	14301010	Cream cheese, regular, plain	0.0159	1
27 F-S Colors, Flavors, Nutraceuticals	14301100	Cream cheese, regular, flavored	0.0159	1
27 F-S Colors, Flavors, Nutraceuticals	14303010	Cream cheese, light	0.0159	1
27 F-S Colors, Flavors, Nutraceuticals	14410100	Cheese, American and Swiss blends	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14410110	Cheese, American	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14410120	Cheese, American, reduced fat	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14410130	Cheese, American, nonfat or fat free	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14410210	Cheese, American, reduced sodium	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14410330	Cheese spread, American or Cheddar cheese base, reduced fat	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14410380	Cream cheese spread, fat free	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14410500	Cheese, processed cheese food	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14410600	Cheese, processed, with vegetables	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14410620	Cheese, with wine	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14420100	Cheese spread, American or Cheddar cheese base	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14420160	Cheese spread, Swiss cheese base	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14420200	Cheese spread, cream cheese, regular	0.006	1

27 F-S Colors, Flavors, Nutraceuticals	14420210	Cheese spread, cream cheese, light	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14420300	Cheese spread, pressurized can	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14630200	Cheese souffle	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14630300	Welsh rarebit	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	14640004	Cheese sandwich, American cheese, on wheat bread, no spread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640006	Cheese sandwich, American cheese, on whole wheat bread, no spread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640010	Cheese sandwich, Cheddar cheese, on wheat bread, no spread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640012	Cheese sandwich, Cheddar cheese, on whole wheat bread, no spread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640016	Cheese sandwich, reduced fat American cheese, on wheat bread, no spread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640018	Cheese sandwich, reduced fat American cheese, on whole wheat bread, no spr	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640022	Cheese sandwich, reduced fat Cheddar cheese, on wheat bread, no spread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640024	Cheese sandwich, reduced fat Cheddar cheese, on whole wheat bread, no spre	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640028	Cheese sandwich, American cheese, on wheat bread, with mayonnaise	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640030	Cheese sandwich, American cheese, on whole wheat bread, with mayonnaise	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640034	Cheese sandwich, Cheddar cheese, on wheat bread, with mayonnaise	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640036	Cheese sandwich, Cheddar cheese, on whole wheat bread, with mayonnaise	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640040	Cheese sandwich, reduced fat American cheese,, on wheat bread, with mayonr	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640042	Cheese sandwich, reduced fat American cheese, on whole wheat bread, with r	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640046	Cheese sandwich, reduced fat Cheddar cheese, on wheat bread, with mayonna	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640048	Cheese sandwich, reduced fat Cheddar cheese, on whole wheat bread, with m:	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640052	Cheese sandwich, American cheese, on wheat bread, with butter	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640054	Cheese sandwich, American cheese, on whole wheat bread, with butter	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640058	Cheese sandwich, Cheddar cheese, on wheat bread, with butter	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640060	Cheese sandwich, Cheddar cheese, on whole wheat bread, with butter	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640064	Cheese sandwich, reduced fat American cheese, on wheat bread, with butter	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640066	Cheese sandwich, reduced fat American cheese, on whole wheat bread, with b	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640070	Cheese sandwich, reduced fat Cheddar cheese, on wheat bread, with butter	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640072	Cheese sandwich, reduced fat Cheddar cheese, on whole wheat bread, with bu	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640110	Grilled cheese sandwich, American cheese, on wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640115	Grilled cheese sandwich, American cheese, on whole wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640130	Grilled cheese sandwich, Cheddar cheese, on wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640135	Grilled cheese sandwich, Cheddar cheese, on whole wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640160	Grilled cheese sandwich, reduced fat American cheese, on wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640165	Grilled cheese sandwich, reduced fat American cheese, on whole wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640190	Grilled cheese sandwich, reduced fat Cheddar cheese, on wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	14640195	Grilled cheese sandwich, reduced fat Cheddar cheese, on whole wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	26100190	Fish, NS as to type, smoked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26105190	Carp, smoked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26109190	Cod, smoked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26113190	Eel, smoked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26115190	Flounder, smoked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26117190	Haddock, smoked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26118060	Halibut, smoked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26119190	Herring, smoked, kippered	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26121190	Mackerel, smoked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26131190	Pompano, smoked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26137190	Salmon, smoked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26147190	Sturgeon, smoked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26151190	Trout, smoked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26153190	Tuna, fresh, smoked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26205190	Octopus, smoked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26207110	Roe, shad, cooked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26209100	Roe, herring	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26211100	Roe, sturgeon	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26303190	Clams, smoked, in oil	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	26305180	Crab, canned	0.0075	1
27 F-S Colors, Flavors, Nutraceuticals	26311180	Lobster, canned	0.0075	1
27 F-S Colors, Flavors, Nutraceuticals	26315190	Oysters, smoked	0.0075	1
27 F-S Colors, Flavors, Nutraceuticals	26319180	Shrimp, canned	0.0075	1
27 F-S Colors, Flavors, Nutraceuticals	27510196	Cheeseburger, on wheat bun, 1 small patty	0.0177	0.376
27 F-S Colors, Flavors, Nutraceuticals	27510242	Cheeseburger, on wheat bun, 1 medium patty	0.0177	0.3605
27 F-S Colors, Flavors, Nutraceuticals	27510246	Cheeseburger, on wheat bun, 1 large patty	0.0177	0.289
27 F-S Colors, Flavors, Nutraceuticals	27510255	Double cheeseburger, on wheat bun, 2 small patties	0.0177	0.219
27 F-S Colors, Flavors, Nutraceuticals	27510258	Double cheeseburger, on wheat bun, 2 medium patties	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27510263	Double cheeseburger, on wheat bun, 2 large patties	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27510576	Hamburger, on wheat bun, 1 small patty	0.0177	0.443
27 F-S Colors, Flavors, Nutraceuticals	27510632	Hamburger, on wheat bun, 1 medium patty	0.0177	0.4126
27 F-S Colors, Flavors, Nutraceuticals	27510636	Hamburger, on wheat bun, 1 large patty	0.0177	0.2846
27 F-S Colors, Flavors, Nutraceuticals	27510652	Double hamburger, on wheat bun, 2 small patties	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27510657	Double hamburger, on wheat bun, 2 medium patties	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27510659	Double hamburger, on wheat bun, 2 large patties	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27540185	Chicken fillet sandwich, fried, on wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27540186	Chicken fillet sandwich, fried, on wheat bun, with cheese	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27540205	Chicken fillet sandwich, grilled, on wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27540206	Chicken fillet sandwich, grilled, on wheat bun, with cheese	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27545110	Turkey or chicken burger, on wheat bun	0.0177	0.4126
27 F-S Colors, Flavors, Nutraceuticals	27550410	Fish sandwich, fried, on wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27550415	Fish sandwich, fried, on wheat bun, with cheese	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564001	Frankfurter or hot dog sandwich, NFS, plain, on wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564002	Frankfurter or hot dog sandwich, NFS, plain, on whole wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564004	Frankfurter or hot dog sandwich, NFS, plain, on multigrain bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564020	Frankfurter or hot dog sandwich, NFS, plain, on wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564030	Frankfurter or hot dog sandwich, NFS, plain, on whole wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564050	Frankfurter or hot dog sandwich, NFS, plain, on multigrain bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564061	Frankfurter or hot dog sandwich, beef, plain, on wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564062	Frankfurter or hot dog sandwich, beef, plain, on whole wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564064	Frankfurter or hot dog sandwich, beef, plain, on multigrain bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564080	Frankfurter or hot dog sandwich, beef, plain, on wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564090	Frankfurter or hot dog sandwich, beef, plain, on whole wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564110	Frankfurter or hot dog sandwich, beef, plain, on multigrain bread	0.0177	0.37

27 F-S Colors, Flavors, Nutraceuticals	27564121	Frankfurter or hot dog sandwich, beef and pork, plain, on wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564122	Frankfurter or hot dog sandwich, beef and pork, plain, on whole wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564124	Frankfurter or hot dog sandwich, beef and pork, plain, on multigrain bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564140	Frankfurter or hot dog sandwich, beef and pork, plain, on wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564150	Frankfurter or hot dog sandwich, beef and pork, plain, on whole wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564170	Frankfurter or hot dog sandwich, beef and pork, plain, on multigrain bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564181	Frankfurter or hot dog sandwich, meat and poultry, plain, on wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564182	Frankfurter or hot dog sandwich, meat and poultry, plain, on whole wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564184	Frankfurter or hot dog sandwich, meat and poultry, plain, on multigrain bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564200	Frankfurter or hot dog sandwich, meat and poultry, plain, on wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564210	Frankfurter or hot dog sandwich, meat and poultry, plain, on whole wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564230	Frankfurter or hot dog sandwich, meat and poultry, plain, on multigrain bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564241	Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564242	Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on whole wheat bread	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564244	Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on multigrain bread	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564260	Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564270	Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on whole wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564290	Frankfurter or hot dog sandwich, chicken and/or turkey, plain, on multigrain bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564301	Frankfurter or hot dog sandwich, reduced fat or light, plain, on wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564302	Frankfurter or hot dog sandwich, reduced fat or light, plain, on whole wheat bread	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564304	Frankfurter or hot dog sandwich, reduced fat or light, plain, on multigrain bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564320	Frankfurter or hot dog sandwich, reduced fat or light, plain, on wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564330	Frankfurter or hot dog sandwich, reduced fat or light, plain, on whole wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564350	Frankfurter or hot dog sandwich, reduced fat or light, plain, on multigrain bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564361	Frankfurter or hot dog sandwich, fat free, plain, on wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564362	Frankfurter or hot dog sandwich, fat free, plain, on whole wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564364	Frankfurter or hot dog sandwich, fat free, plain, on multigrain bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564380	Frankfurter or hot dog sandwich, fat free, plain, on wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564390	Frankfurter or hot dog sandwich, fat free, plain, on whole wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564410	Frankfurter or hot dog sandwich, fat free, plain, on multigrain bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564430	Frankfurter or hot dog sandwich, meatless, plain, on bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564441	Frankfurter or hot dog sandwich, with chili, on wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564442	Frankfurter or hot dog sandwich, with chili, on whole wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564444	Frankfurter or hot dog sandwich, with chili, on multigrain bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564460	Frankfurter or hot dog sandwich, with chili, on wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564470	Frankfurter or hot dog sandwich, with chili, on whole wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564490	Frankfurter or hot dog sandwich, with chili, on multigrain bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	27564501	Frankfurter or hot dog sandwich, with meatless chili, on wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564502	Frankfurter or hot dog sandwich, with meatless chili, on whole wheat bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564504	Frankfurter or hot dog sandwich, with meatless chili, on multigrain bun	0.0177	0.29
27 F-S Colors, Flavors, Nutraceuticals	27564510	Frankfurter or hot dog sandwich, with meatless chili, on white bread	0.015	0.429
27 F-S Colors, Flavors, Nutraceuticals	27564520	Frankfurter or hot dog sandwich, with meatless chili, on wheat bread	0.015	0.429
27 F-S Colors, Flavors, Nutraceuticals	27564530	Frankfurter or hot dog sandwich, with meatless chili, on whole wheat bread	0.015	0.4076
27 F-S Colors, Flavors, Nutraceuticals	27564540	Frankfurter or hot dog sandwich, with meatless chili, on whole grain white bread	0.015	0.4076
27 F-S Colors, Flavors, Nutraceuticals	27564550	Frankfurter or hot dog sandwich, with meatless chili, on multigrain bread	0.015	0.4076
27 F-S Colors, Flavors, Nutraceuticals	27564570	Frankfurter or hot dog sandwich, meatless, on bread, with meatless chili	0.015	0.432
27 F-S Colors, Flavors, Nutraceuticals	28150220	Flounder with chopped broccoli, diet frozen meal	0.57	1
27 F-S Colors, Flavors, Nutraceuticals	28150510	Fish in lemon-butter sauce with starch item, vegetable, frozen meal	0.57	1
27 F-S Colors, Flavors, Nutraceuticals	28153010	Shrimp and clams in tomato-based sauce, with noodles, frozen meal	0.57	1
27 F-S Colors, Flavors, Nutraceuticals	28154010	Shrimp and vegetables in sauce with noodles, diet frozen meal	0.57	1
27 F-S Colors, Flavors, Nutraceuticals	28310110	Beef, broth, bouillon, or consomme	0.0135	1
27 F-S Colors, Flavors, Nutraceuticals	28321130	Bacon soup, cream of, prepared with water	0.0135	1
27 F-S Colors, Flavors, Nutraceuticals	28340110	Chicken or turkey broth, bouillon, or consomme	0.0135	1
27 F-S Colors, Flavors, Nutraceuticals	28340150	Mexican style chicken broth soup stock	0.0135	1
27 F-S Colors, Flavors, Nutraceuticals	28340179	Beef broth, less or reduced sodium, canned or ready-to-serve	0.0135	1
27 F-S Colors, Flavors, Nutraceuticals	28340180	Chicken or turkey broth, less or reduced sodium, canned or ready-to-serve	0.0135	1
27 F-S Colors, Flavors, Nutraceuticals	28345010	Chicken or turkey soup, cream of, canned, reduced sodium, NS as to made with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	28345020	Chicken or turkey soup, cream of, canned, reduced sodium, made with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	28345030	Chicken or turkey soup, cream of, canned, reduced sodium, made with water	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	28345110	Chicken or turkey soup, cream of, NS as to prepared with milk or water	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	28345120	Chicken or turkey soup, cream of, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	28345130	Chicken or turkey soup, cream of, prepared with water	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	28345160	Chicken or turkey mushroom soup, cream of, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	28350110	Crab soup, NS as to tomato-base or cream style	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	28355210	Crab soup, cream of, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	28355350	Salmon soup, cream style	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	28355410	Shrimp soup, cream of, NS as to prepared with milk or water	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	28355420	Shrimp soup, cream of, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	28355430	Shrimp soup, cream of, prepared with water	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	28360100	Meat broth, Puerto Rican style	0.0135	1
27 F-S Colors, Flavors, Nutraceuticals	32101000	Egg, creamed	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32101500	Egg, Benedict	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32102000	Egg, deviled	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32103000	Egg salad, made with mayonnaise	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32103015	Egg salad, made with light mayonnaise	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32103020	Egg salad, made with mayonnaise-type salad dressing	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32103025	Egg salad, made with light mayonnaise-type salad dressing	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32103030	Egg salad, made with creamy dressing	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32103035	Egg salad, made with light creamy dressing	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32103040	Egg salad, made with Italian dressing	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32103045	Egg salad, made with light Italian dressing	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32103050	Egg Salad, made with any type of fat free dressing	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32105180	Huevos rancheros	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32105190	Egg casserole with bread, cheese, milk and meat	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32105310	Ripe plantain omelet, Puerto Rican style	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32105330	Scrambled eggs with jerked beef, Puerto Rican style	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32110100	Eggs a la Malaguena, Puerto Rican style	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32110150	Shrimp-egg patty	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32129990	Egg omelet or scrambled egg, NS as to fat	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32130000	Egg omelet or scrambled egg, made with margarine	0.36	1

27 F-S Colors, Flavors, Nutraceuticals	32400200	Egg white, omelet, scrambled, or fried, with meat	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32400300	Egg white, omelet, scrambled, or fried, with vegetables	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32400400	Egg white, omelet, scrambled, or fried, with cheese and meat	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32400500	Egg white, omelet, scrambled, or fried, with cheese and vegetables	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32400600	Egg white, omelet, scrambled, or fried, with meat and vegetables	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	32400700	Egg white, omelet, scrambled, or fried, with cheese, meat, and vegetables	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	33001010	Egg substitute, omelet, scrambled, or fried, fat added	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	33001050	Egg substitute, omelet, scrambled, or fried, no added fat	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	33401000	Egg substitute, omelet, scrambled, or fried, with cheese	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	33401100	Egg substitute, omelet, scrambled, or fried, with meat	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	33401200	Egg substitute, omelet, scrambled, or fried, with vegetables	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	33401300	Egg substitute, omelet, scrambled, or fried, with cheese and meat	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	33401400	Egg substitute, omelet, scrambled, or fried, with cheese and vegetables	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	33401500	Egg substitute, omelet, scrambled, or fried, with meat and vegetables	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	33401600	Egg substitute, omelet, scrambled, or fried, with cheese, meat, and vegetables	0.36	1
27 F-S Colors, Flavors, Nutraceuticals	41310900	Bean chips	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	41410015	Soy chips	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	41421010	Soybean curd, deep fried	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41421020	Soybean curd, breaded, fried	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41440000	Textured vegetable protein, dry	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41810200	Bacon strip, meatless	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41810250	Bacon bits	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41810400	Breakfast link, pattie, or slice, meatless	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41810600	Chicken, meatless, NFS	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41810610	Chicken, meatless, breaded, fried	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41811400	Frankfurter or hot dog, meatless	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41811600	Luncheon slice, meatless-beef, chicken, salami or turkey	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41811800	Meatball, meatless	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41811890	Vegetarian burger or patty, meatless, no bun	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41812000	Sandwich spread, meat substitute type	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41812400	Vegetarian pot pie	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41812450	Vegetarian chili, made with meat substitute	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41812500	Tofu and vegetables including carrots, broccoli, and/or dark-green leafy; no po	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41812510	Tofu and vegetables excluding carrots, broccoli, and dark-green leafy; no potat	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41812600	Vegetarian, fillet	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41812800	Vegetarian stew	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41812850	Vegetarian stroganoff	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	41901020	Soyburger, meatless, with cheese on bun	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	42100050	Nuts, NFS	0.9	1
27 F-S Colors, Flavors, Nutraceuticals	42100100	Almonds, NFS	0.9	1
27 F-S Colors, Flavors, Nutraceuticals	42104000	Cashews, NFS	0.9	1
27 F-S Colors, Flavors, Nutraceuticals	42110000	Mixed nuts, NFS	0.9	1
27 F-S Colors, Flavors, Nutraceuticals	42111000	Peanuts, NFS	0.9	1
27 F-S Colors, Flavors, Nutraceuticals	42111200	Peanuts, dry roasted, salted	0.9	1
27 F-S Colors, Flavors, Nutraceuticals	42111205	Peanuts, dry roasted, lightly salted	0.9	1
27 F-S Colors, Flavors, Nutraceuticals	42111210	Peanuts, dry roasted, unsalted	0.9	1
27 F-S Colors, Flavors, Nutraceuticals	42301020	Peanut butter sandwich, with regular peanut butter, on wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	42301025	Peanut butter sandwich, with regular peanut butter, on whole wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	42301120	Peanut butter sandwich, with reduced fat peanut butter, on wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	42301125	Peanut butter sandwich, with reduced fat peanut butter, on whole wheat bread	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	42302020	Peanut butter and jelly sandwich, with regular peanut butter, regular jelly, on v	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	42302025	Peanut butter and jelly sandwich, with regular peanut butter, regular jelly, on v	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	42302060	Peanut butter and jelly sandwich, with reduced fat peanut butter, regular jelly,	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	42302065	Peanut butter and jelly sandwich, with reduced fat peanut butter, regular jelly,	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	42302110	Peanut butter and jelly sandwich, with regular peanut butter, reduced sugar je	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	42302115	Peanut butter and jelly sandwich, with regular peanut butter, reduced sugar je	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	42302160	Peanut butter and jelly sandwich, with reduced fat peanut butter, reduced sug	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	42302165	Peanut butter and jelly sandwich, with reduced fat peanut butter, reduced sug	0.0177	0.37
27 F-S Colors, Flavors, Nutraceuticals	44201000	Carob chips	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	51000180	Bread, made from home recipe or purchased at a bakery, NS as to major flour	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51000190	Bread, made from home recipe or purchased at a bakery, toasted, NS as to maj	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51108010	Focaccia, Italian flatbread, plain	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51108100	Naan, Indian flatbread	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51109010	Bread, Italian, Grecian, Armenian	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51109040	Bread, Italian, Grecian, Armenian, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51115010	Bread, cornmeal and molasses	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51115020	Bread, cornmeal and molasses, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51119010	Bread, egg, Challah	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51119040	Bread, egg, Challah, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51121015	Garlic bread, NFS	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51121025	Garlic bread, from fast food / restaurant	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51121035	Garlic bread, from frozen	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51121045	Garlic bread, with parmesan cheese, from fast food / restaurant	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51121055	Garlic bread, with parmesan cheese, from frozen	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51121065	Garlic bread, with melted cheese, from fast food / restaurant	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51121075	Garlic bread, with melted cheese, from frozen	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51123010	Bread, high protein	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51123020	Bread, high protein, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51127010	Bread, potato	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51127020	Bread, potato, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51129010	Bread, raisin	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51129020	Bread, raisin, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51133010	Bread, sour dough	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51133020	Bread, sour dough, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51136000	Bruschetta	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51140100	Bread, dough, fried	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51160000	Roll, sweet, no frosting	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51160100	Roll, sweet, cinnamon bun, no frosting	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51160110	Roll, sweet, cinnamon bun, frosted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51161000	Pan Dulce, with fruit, no frosting	0.0177	1

27 F-S Colors, Flavors, Nutraceuticals	51161020	Roll, sweet, with fruit, frosted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51161030	Roll, sweet, with fruit, frosted, diet	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51161050	Roll, sweet, frosted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51161250	Pan Dulce, no topping	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51161270	Pan Dulce, with sugar topping	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51161280	Pan Dulce, with raisins and icing	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51168000	Bread, Spanish coffee	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51182010	Bread stuffing	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51182020	Bread stuffing made with egg	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51183990	Breadsticks, NFS	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51184000	Breadsticks, hard, NFS	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51184100	Breadsticks, hard, reduced sodium	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51184200	Breadsticks, soft, NFS	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51184210	Breadsticks, soft, from fast food / restaurant	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51184220	Breadsticks, soft, from frozen	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51184230	Breadsticks, soft, with parmesan cheese, from fast food / restaurant	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51184240	Breadsticks, soft, with parmesan cheese, from frozen	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51184250	Breadsticks, soft, topped with melted cheese	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51184260	Breadsticks, soft, stuffed with melted cheese	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51185000	Croutons	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51187000	Melba toast	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51187020	Anisette toast	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51188500	Zwieback toast	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51300050	Bread, whole grain white	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51300060	Bread, whole grain white, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51300110	Bread, whole wheat	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51300120	Bread, whole wheat, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51300140	Bread, whole wheat, made from home recipe or purchased at bakery	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51300150	Bread, whole wheat, made from home recipe or purchased at bakery, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51300175	Bread, chappatti or roti, wheat	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51300180	Bread, puri, wheat	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51300185	Bread, paratha, wheat	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51300210	Bread, whole wheat, with raisins	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51300220	Bread, whole wheat, with raisins, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51300300	Bread, sprouted wheat	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51300310	Bread, sprouted wheat, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51301010	Bread, wheat or cracked wheat	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51301020	Bread, wheat or cracked wheat, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51301040	Bread, wheat or cracked wheat, made from home recipe or purchased at bakery	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51301050	Bread, wheat or cracked wheat, made from home recipe or purchased at bakery	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51301120	Bread, wheat or cracked wheat, with raisins	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51301130	Bread, wheat or cracked wheat, with raisins, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51301510	Bread, wheat or cracked wheat, reduced calorie and/or high fiber	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51301520	Bread, wheat or cracked wheat, reduced calorie and/or high fiber, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51301540	Bread, French or Vienna, whole wheat	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51301550	Bread, French or Vienna, whole wheat, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51301600	Bread, pita, whole wheat	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51301610	Bread, pita, whole wheat, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51301620	Bread, pita, wheat or cracked wheat	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51301630	Bread, pita, wheat or cracked wheat, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51306000	Breadsticks, hard, whole wheat	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51320010	Roll, wheat or cracked wheat	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51320060	Roll, wheat or cracked wheat, hot dog bun	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51320070	Roll, wheat or cracked wheat, hamburger bun	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51320500	Roll, whole wheat	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51320550	Roll, whole wheat, hot dog bun	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51320560	Roll, whole wheat, hamburger bun	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51320700	Roll, whole grain white	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51320710	Roll, whole grain white, hot dog bun	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51320720	Roll, whole grain white, hamburger bun	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51401010	Bread, rye	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51401020	Bread, rye, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51401030	Bread, marble rye and pumpernickel	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51401040	Bread, marble rye and pumpernickel, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51404010	Bread, pumpernickel	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51404020	Bread, pumpernickel, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51407010	Bread, black	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51407020	Bread, black, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51420000	Roll, rye	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51421000	Roll, pumpernickel	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51501010	Bread, oatmeal	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51501020	Bread, oatmeal, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51501040	Bread, oat bran	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51501050	Bread, oat bran, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51502010	Roll, oatmeal	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51601010	Bread, multigrain, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51601020	Bread, multigrain	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51601210	Bread, multigrain, with raisins	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51601220	Bread, multigrain, with raisins, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51602010	Bread, multigrain, reduced calorie and/or high fiber	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51602020	Bread, multigrain, reduced calorie and/or high fiber, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51620000	Roll, multigrain	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51620020	Roll, multigrain, hot dog bun	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51620030	Roll, multigrain, hamburger bun	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51801010	Bread, barley	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51801020	Bread, barley, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51805020	Bread, sunflower meal, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51806010	Bread, rice	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51806020	Bread, rice, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51807000	Injera, Ethiopian bread	0.0177	1

27 F-S Colors, Flavors, Nutraceuticals	51808000	Bread, gluten free	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51808010	Bread, gluten free, toasted	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51808050	Breadsticks, hard, gluten free	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	51808100	Roll, gluten free	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	52201000	Cornbread, prepared from mix	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	52202060	Cornbread, made from home recipe	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	52204000	Cornbread stuffing	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	52206010	Cornbread muffin, stick, round	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	52206060	Cornbread muffin, stick, round, made from home recipe	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	52213010	Spoonbread	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	52401000	Bread, Boston Brown	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	52403000	Bread, nut	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	52404060	Bread, pumpkin	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	52405010	Bread, fruit	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	52407000	Bread, zucchini	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	52408000	Bread, Irish soda	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	53110000	Cake, fruit cake, light or dark, holiday type cake	2.9	1
27 F-S Colors, Flavors, Nutraceuticals	53200100	Cookie, batter or dough, raw	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53201000	Cookie, NFS	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53202000	Cookie, almond	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53203000	Cookie, applesauce	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53203500	Cookie, biscotti	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53205250	Cookie, butterscotch, brownie	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53215500	Cookie, coconut	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53220000	Cookie, fruit-filled bar	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53220010	Cookie, fruit-filled bar, fat free	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53220030	Cookie, fig bar	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53220040	Cookie, fig bar, fat free	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53222010	Cookie, fortune	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53223000	Cookie, gingersnaps	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53223100	Cookie, granola	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53224000	Cookie, ladyfinger	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53224250	Cookie, lemon bar	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53225000	Cookie, macaroon	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53226000	Cookie, marshmallow, with coconut	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53226500	Cookie, marshmallow, with rice cereal, no bake	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53226600	Cookie, marshmallow and peanut butter, with oat cereal, no bake	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53228000	Cookie, meringue	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53230000	Cookie, molasses	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53231000	Cookie, Lebkuchen	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53231400	Cookie, multigrain, high fiber	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53233000	Cookie, oatmeal	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53233010	Cookie, oatmeal, with raisins	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53233040	Cookie, oatmeal, reduced fat, NS as to raisins	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53233050	Cookie, oatmeal sandwich, with creme filling	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53233080	Cookie, oatmeal sandwich, with peanut butter and jelly filling	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53234000	Cookie, peanut butter	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53234250	Cookie, peanut butter with rice cereal, no bake	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53235000	Cookie, peanut butter sandwich	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53235600	Cookie, Pfeffernusse	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53236000	Cookie, Pizzelle	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53236100	Cookie, pumpkin	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53237000	Cookie, raisin	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53237010	Cookie, raisin sandwich, cream-filled	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53237500	Cookie, rum ball, no bake	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53238000	Cookie, sandwich-type, not chocolate or vanilla	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53239000	Cookie, shortbread	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53239010	Cookie, shortbread, reduced fat	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53239100	Pocky	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53240000	Cookie, animal	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53241500	Cookie, butter or sugar	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53241510	Marie biscuit	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53241600	Cookie, butter or sugar, with fruit and/or nuts	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53242500	Cookie, toffee bar	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53243000	Cookie, vanilla sandwich	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53243010	Cookie, vanilla sandwich, extra filling	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53243050	Cookie, vanilla sandwich, reduced fat	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53246000	Cookie, tea, Japanese	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53251100	Cookie, rugelach	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53260200	Cookie, oatmeal, sugar free	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53260300	Cookie, sandwich, sugar free	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53260400	Cookie, sugar or plain, sugar free	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53260600	Cookie, peanut butter, sugar free	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53261000	Cookie, gluten free	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53270100	Cookies, Puerto Rican style	0.117	1
27 F-S Colors, Flavors, Nutraceuticals	53300100	Pie, NFS	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53300170	Pie, individual size or tart, NFS	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53300180	Pie, fried, NFS	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53301000	Pie, apple, two crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53301070	Pie, apple, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53301080	Pie, apple, fried pie	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53301500	Pie, apple, one crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53302000	Pie, apricot, two crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53302070	Pie, apricot, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53302080	Pie, apricot, fried pie	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53303000	Pie, blackberry, two crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53303070	Pie, blackberry, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53303500	Pie, berry, not blackberry, blueberry, boysenberry, huckleberry, raspberry, or s	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53303510	Pie, berry, not blackberry, blueberry, boysenberry, huckleberry, raspberry, or s	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53303570	Pie, berry, not blackberry, blueberry, boysenberry, huckleberry, raspberry, or s	0.051	1

27 F-S Colors, Flavors, Nutraceuticals	53304000	Pie, blueberry, two crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53304070	Pie, blueberry, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53305000	Pie, cherry, two crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53305010	Pie, cherry, one crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53305070	Pie, cherry, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53305080	Pie, cherry, fried pie	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53305700	Pie, lemon, not cream or meringue	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53305720	Pie, lemon, not cream or meringue, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53305750	Pie, lemon, fried pie	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53306000	Pie, mince, two crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53307000	Pie, peach, two crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53307050	Pie, peach, one crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53307070	Pie, peach, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53307080	Pie, peach, fried pie	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53307500	Pie, pear, two crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53307570	Pie, pear, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53308000	Pie, pineapple, two crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53308070	Pie, pineapple, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53309000	Pie, raisin, two crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53309070	Pie, raisin, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53310000	Pie, raspberry, one crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53310050	Pie, raspberry, two crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53311000	Pie, rhubarb, two crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53312000	Pie, strawberry, one crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53313000	Pie, strawberry-rhubarb, two crust	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53314000	Pie, strawberry, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53340000	Pie, apple-sour cream	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53340500	Pie, cherry, made with cream cheese and sour cream	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53341000	Pie, banana cream	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53341070	Pie, banana cream, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53343000	Pie, coconut cream	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53343070	Pie, coconut cream, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53344200	Mixed fruit tart filled with custard or cream cheese	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53345000	Pie, lemon cream	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53345070	Pie, lemon cream, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53347000	Pie, pumpkin	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53347070	Pie, pumpkin, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53348000	Pie, strawberry cream	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53348070	Pie, strawberry cream, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53381000	Pie, lemon meringue	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53381070	Pie, lemon meringue, individual size or tart	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53390100	Pie, tofu with fruit	0.051	1
27 F-S Colors, Flavors, Nutraceuticals	53391200	Vanilla wafer dessert base	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54001000	Crackers, NFS	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54102010	Graham crackers	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54102015	Graham crackers (Teddy Grahams)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54102050	Crackers, oatmeal	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54102060	Crackers, Cuban	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54102100	Graham crackers, reduced fat	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54102200	Graham crackers, sandwich, with filling	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54103000	Crackers, breakfast biscuit	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54200100	Crackers, butter, reduced sodium	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54201010	Crackers, matzo, reduced sodium	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54202020	Crackers, saltine, reduced sodium	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54204020	Crackers, wheat, reduced sodium	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54204030	Crackers, woven wheat, reduced sodium	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54301010	Crackers, butter, plain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54301020	Crackers, butter, flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54301030	Crackers, butter (Ritz)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54301100	Crackers, butter, reduced fat	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54304000	Crackers, cheese	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54304005	Crackers, cheese (Cheez-It)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54304020	Crackers, cheese (Goldfish)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54304100	Crackers, cheese, reduced fat	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54304110	Crackers, cheese, reduced sodium	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54304150	Crackers, cheese, whole grain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54305010	Crackers, crispbread	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54305020	Crackers, flatbread	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54307000	Crackers, matzo	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54308000	Crackers, milk	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54313000	Crackers, oyster	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54318000	Chips, rice	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54318500	Rice cake	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54319000	Crackers, rice	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54319005	Crackers, rice and nuts	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54319020	Popcorn cake	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54319500	Rice paper	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54325000	Crackers, saltine	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54325010	Crackers, saltine, reduced fat	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54325060	Crackers, saltine, multigrain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54326000	Crackers, multigrain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54328000	Crackers, sandwich	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54328100	Crackers, sandwich, peanut butter filled	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54328105	Crackers, sandwich, peanut butter filled (Ritz)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54328110	Crackers, sandwich, reduced fat, peanut butter filled	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54328120	Crackers, whole grain, sandwich, peanut butter filled	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54328200	Crackers, sandwich, cheese filled	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54328210	Crackers, sandwich, cheese filled (Ritz)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54336000	Crackers, water	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54336100	Crackers, wonton	0.006	1

27 F-S Colors, Flavors, Nutraceuticals	54337010	Crackers, woven wheat	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54337020	Crackers, woven wheat, plain (Triscuit)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54337030	Crackers, woven wheat, flavored (Triscuit)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54337060	Crackers, woven wheat, reduced fat	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54338000	Crackers, wheat	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54338010	Crackers, wheat, plain (Wheat Thins)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54338020	Crackers, wheat, flavored (Wheat Thins)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54338100	Crackers, wheat, reduced fat	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54339000	Crackers, corn	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54340100	Crackers, gluten free, plain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54340110	Crackers, gluten free, flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401011	Corn nuts	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401021	Corn chips, plain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401026	Corn chips, flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401031	Corn chips, plain (Fritos)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401035	Corn chips, flavored (Fritos)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401055	Cheese flavored corn snacks	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401065	Cheese flavored corn snacks, reduced fat	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401075	Tortilla chips, plain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401081	Cheese flavored corn snacks (Cheetos)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401085	Tortilla chips, flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401090	Corn chips, reduced sodium	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401095	Tortilla chips, popped	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401110	Tortilla chips, nacho cheese flavor (Doritos)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401111	Tortilla chips, cool ranch flavor (Doritos)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401112	Tortilla chips, other flavors (Doritos)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401121	Tortilla chips, reduced fat, plain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401122	Tortilla chips, reduced fat, flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54401170	Tortilla chips, low fat, unsalted	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54402080	Tortilla chips, reduced sodium	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54402200	Snack mix	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54402610	Potato chips, restructured, multigrain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54402700	Pita chips	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403001	Popcorn, NFS	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403005	Popcorn, movie theater, with added butter	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403006	Popcorn, movie theater, unbuttered	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403010	Popcorn, air-popped, unbuttered	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403040	Popcorn, air-popped, with added butter or margarine	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403045	Popcorn, popped in oil, unbuttered	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403046	Popcorn, popped in oil, with added butter or margarine	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403051	Popcorn, microwave, NFS	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403052	Popcorn, microwave, plain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403053	Popcorn, microwave, plain, light	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403054	Popcorn, microwave, low sodium	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403055	Popcorn, microwave, unsalted	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403056	Popcorn, microwave, butter flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403057	Popcorn, microwave, butter flavored, light	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403058	Popcorn, microwave, cheese flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403059	Popcorn, microwave, kettle corn	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403061	Popcorn, microwave, kettle corn, light	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403062	Popcorn, microwave, other flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403080	Popcorn, ready-to-eat packaged, NFS	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403081	Popcorn, ready-to-eat packaged, plain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403082	Popcorn, ready-to-eat packaged, plain, light	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403083	Popcorn, ready-to-eat packaged, low sodium	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403084	Popcorn, ready-to-eat packaged, unsalted	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403085	Popcorn, ready-to-eat packaged, butter flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403086	Popcorn, ready-to-eat packaged, butter flavored, light	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403087	Popcorn, ready-to-eat packaged, cheese flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403088	Popcorn, ready-to-eat packaged, cheese flavored, light	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403089	Popcorn, ready-to-eat-packaged, kettle corn	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403091	Popcorn, ready-to-eat packaged, kettle corn, light	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403092	Popcorn, ready-to-eat packaged, other flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403110	Popcorn, caramel coated	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54403120	Popcorn, caramel coated, with nuts	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54404000	Popcorn chips, plain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54404010	Popcorn chips, other flavors	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54404020	Popcorn chips, sweet flavors	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54406010	Onion flavored rings	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54406200	Shrimp chips	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408000	Pretzels, NFS	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408015	Pretzels, hard, NFS	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408016	Pretzels, hard, plain, salted	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408017	Pretzels, hard, plain, lightly salted	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408030	Pretzels, hard, plain, unsalted	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408035	Pretzels, hard, flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408070	Pretzels, hard, multigrain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408081	Pretzels, hard, plain, gluten free	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408082	Pretzels, hard, flavored, gluten free	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408105	Pretzel chips, hard, plain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408110	Pretzel chips, hard, flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408115	Pretzel chips, hard, gluten free	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408190	Pretzels, hard, coated, NFS	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408250	Pretzels, hard, yogurt coated	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408260	Pretzels, hard, coated, gluten free	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408290	Pretzels, hard, filled, NFS	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408300	Pretzels, hard, cheese filled	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408310	Pretzels, hard, peanut butter filled	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408400	Pretzels, soft, NFS	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408405	Pretzels, soft, ready-to-eat, NFS	0.006	1

27 F-S Colors, Flavors, Nutraceuticals	54408410	Pretzels, soft, ready-to-eat, salted, buttered	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408411	Pretzels, soft, ready-to-eat, unsalted, buttered	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408415	Pretzels, soft, ready-to-eat, salted, no butter	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408416	Pretzels, soft, ready-to-eat, unsalted, no butter	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408420	Pretzels, soft, ready-to-eat, cinnamon sugar coated	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408422	Pretzels, soft, ready-to-eat, coated or flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408430	Pretzels, soft, ready-to-eat, topped with meat	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408432	Pretzels, soft, ready-to-eat, topped with cheese	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408450	Pretzels, soft, from frozen, NFS	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408455	Pretzels, soft, from frozen, salted	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408456	Pretzels, soft, from frozen, unsalted	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408460	Pretzels, soft, from frozen, cinnamon sugar coated	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408462	Pretzels, soft, from frozen, coated or flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408465	Pretzels, soft, from frozen, topped with meat	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408466	Pretzels, soft, from frozen, topped with cheese	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408470	Pretzels, soft, filled with cheese	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408475	Pretzels, soft, from school lunch	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408480	Pretzels, soft, multigrain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408485	Pretzels, soft, gluten free	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408486	Pretzels, soft, gluten free, cinnamon sugar coated	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54408487	Pretzels, soft, gluten free, coated or flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54420210	Multigrain chips (Sun Chips)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54420220	Snack mix, plain (Chex Mix)	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54440010	Bagel chips	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	54440020	Cracker chips	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	58163310	Flavored rice mixture	0.0279	1
27 F-S Colors, Flavors, Nutraceuticals	58163330	Flavored rice mixture with cheese	0.0279	1
27 F-S Colors, Flavors, Nutraceuticals	58163360	Flavored rice, brown and wild	0.0279	1
27 F-S Colors, Flavors, Nutraceuticals	58163380	Flavored rice and pasta mixture	0.0279	1
27 F-S Colors, Flavors, Nutraceuticals	58163400	Flavored rice and pasta mixture, reduced sodium	0.0279	1
27 F-S Colors, Flavors, Nutraceuticals	58201015	Jelly sandwich, regular jelly, on wheat bread	0.117	0.37
27 F-S Colors, Flavors, Nutraceuticals	58201025	Jelly sandwich, regular jelly, on whole wheat bread	0.117	0.37
27 F-S Colors, Flavors, Nutraceuticals	58201045	Jelly sandwich, reduced sugar jelly, on wheat bread	0.117	0.37
27 F-S Colors, Flavors, Nutraceuticals	58201055	Jelly sandwich, reduced sugar jelly, on whole wheat bread	0.117	0.37
27 F-S Colors, Flavors, Nutraceuticals	58403050	Chicken or turkey noodle soup, cream of, home recipe, canned, or ready-to-ser	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	59003000	Meat substitute, cereal- and vegetable protein-based, fried	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	61101200	Grapefruit, canned	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	61122300	Orange, canned, NFS	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	61122320	Orange, canned, juice pack	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	61122330	Orange, canned, in syrup	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62101050	Fruit mixture, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62101100	Apple, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62104100	Apricot, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62105000	Blueberries, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62106000	Cherries, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62107200	Banana chips	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62108100	Currants, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62109100	Cranberries, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62113100	Fig, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62114050	Mango, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62114110	Papaya, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62116100	Peach, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62119100	Pear, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62120000	Persimmon, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62120100	Pineapple, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62122100	Prune, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62125100	Raisins	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	62126000	Tamarind, dried	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63100110	Fruit, pickled	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63101110	Applesauce, regular	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63101120	Applesauce, unsweetened	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63101150	Applesauce, flavored	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63101310	Apple, baked	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63103110	Apricot, canned	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63111010	Cherries, maraschino	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63115110	Cherries, canned	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63119110	Fig, canned	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63129030	Mango, canned	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63129050	Mango, frozen	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63133100	Papaya, canned	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63135110	Peach, canned, NFS	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63135140	Peach, canned, in syrup	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63135170	Peach, canned, juice pack	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63137110	Pear, canned, NFS	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63137140	Pear, canned, in syrup	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63141110	Pineapple, canned, NFS	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63141140	Pineapple, canned, in syrup	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63141170	Pineapple, canned, juice pack	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63143110	Plum, canned	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63203110	Blubberies, canned	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63207110	Cranberry sauce	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63223110	Strawberries, canned	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63311110	Fruit cocktail, canned, NFS	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63311140	Fruit cocktail, canned, in syrup	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63311170	Fruit cocktail, canned, juice pack	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	63401060	Apple, candied	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	63409020	Chutney	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	63420105	Frozen fruit juice bar	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	63420205	Frozen fruit juice bar, no sugar added	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	63430150	Sorbet	0.006	1

27 F-S Colors, Flavors, Nutraceuticals	71200010	Potato chips, NFS	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71200100	Potato chips, plain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71200110	Potato chips, barbecue flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71200120	Potato chips, sour cream and onion flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71200130	Potato chips, cheese flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71200140	Potato chips, other flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71200200	Potato chips, ruffled, plain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71200210	Potato chips, ruffled, barbecue flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71200220	Potato chips, ruffled, sour cream and onion flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71200230	Potato chips, ruffled, cheese flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71200240	Potato chips, ruffled, other flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71200300	Potato chips, restructured, plain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71200310	Potato chips, restructured, flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71200400	Potato chips, baked, plain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71200410	Potato chips, baked, flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71201050	Potato chips, reduced fat	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71201060	Potato chips, fat free	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71201200	Potato chips, restructured, reduced fat, lightly salted	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71201210	Potato chips, restructured, fat free	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71202000	Potato chips, unsalted	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71202100	Potato chips, reduced fat, unsalted	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71202500	Potato chips, lightly salted	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71202510	Potato chips, restructured, lightly salted	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71203010	Potato chips, popped, plain	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71203020	Potato chips, popped, flavored	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71203030	Potato chips, popped, NFS	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71220000	Vegetable chips	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71801010	Potato soup, cream of, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	71803010	Potato chowder	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	71905100	Plantain, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	71905410	Plantain chips	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	71980200	Taro chips	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	72107228	Collards, fresh, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	72107231	Collards, frozen, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	72107234	Collards, canned, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	72125218	Spinach, fresh, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	72125225	Spinach, frozen, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	72125228	Spinach, canned, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	72201224	Broccoli, fresh, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	72201227	Broccoli, frozen, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	73102218	Carrots, fresh, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	73102225	Carrots, frozen, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	73102228	Carrots, canned, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	73103022	Carrots, canned, reduced sodium, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	73402022	Sweet potato, baked, peel eaten, made with butter	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	73402023	Sweet potato, baked, peel eaten, made with margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	73403022	Sweet potato, baked, peel not eaten, made with butter	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	73403023	Sweet potato, baked, peel not eaten, made with margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	73405022	Sweet potato, boiled, made with butter	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	73405023	Sweet potato, boiled, made with margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	73406000	Sweet potato, candied	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	73410210	Sweet potato chips	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	73501000	Carrot soup, cream of, prepared with milk, home recipe, canned or ready-to-se	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	73501010	Carrot with rice soup, cream of, prepared with milk, home recipe, canned or re	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	74205020	Tomato, green, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	74401010	Ketchup	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	74401110	Ketchup, reduced sodium	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	74402010	Tomato chili sauce	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	74402100	Salsa, NFS	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	74402110	Salsa, pico de gallo	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	74402150	Salsa, red, commercially-prepared	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	74402200	Salsa, red, homemade	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	74402210	Taco sauce	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	74402250	Enchilada sauce, red	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	74402260	Enchilada sauce, green	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	74402350	Salsa verde or salsa, green	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	74403000	Hot Thai sauce	0.015	1
27 F-S Colors, Flavors, Nutraceuticals	74601010	Tomato soup, cream of, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75202028	Asparagus, fresh, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75202032	Asparagus, frozen, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75202035	Asparagus, canned, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75205045	Green beans, fresh, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75205048	Green beans, frozen, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75205051	Green beans, canned, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75205132	Green beans, canned, reduced sodium, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75211032	Cabbage, green, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75214028	Cauliflower, fresh, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75214031	Cauliflower, frozen, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75216135	Corn, fresh, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75216138	Corn, frozen, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75216142	Corn, canned, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75216322	Corn, canned, reduced sodium, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75219034	Mushrooms, fresh, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75224044	Green peas, fresh, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75224047	Green peas, frozen, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75224050	Green peas, canned, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75224132	Green peas, canned, reduced sodium, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75230000	Sauerkraut	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75233028	Summer squash, yellow or green, fresh, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75233031	Summer squash, yellow or green, frozen, cooked with butter or margarine	0.003	0.03

27 F-S Colors, Flavors, Nutraceuticals	75233034	Summer squash, yellow or green, canned, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75311028	Classic mixed vegetables, frozen, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75311031	Classic mixed vegetables, canned, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75311122	Classic mixed vegetables, canned, reduced sodium, cooked with butter or margarine	0.003	0.03
27 F-S Colors, Flavors, Nutraceuticals	75500110	Green beans, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75500210	Beets, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75500510	Celery, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75501010	Relish, corn	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75502010	Cauliflower, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75502500	Cabbage, fresh, pickled, Japanese style	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75502510	Cabbage, red, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75502520	Kimchi	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75503010	Pickles, dill	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75503020	Relish, pickle	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75503040	Pickles, sweet	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75503080	Eggplant, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75503085	Ginger root, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75505000	Mushrooms, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75506010	Mustard	1.68	1
27 F-S Colors, Flavors, Nutraceuticals	75506100	Honey mustard dip	1.68	1
27 F-S Colors, Flavors, Nutraceuticals	75507000	Okra, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75510000	Olives, NFS	0.12	1
27 F-S Colors, Flavors, Nutraceuticals	75510010	Olives, green	0.12	1
27 F-S Colors, Flavors, Nutraceuticals	75510020	Olives, black	0.12	1
27 F-S Colors, Flavors, Nutraceuticals	75510030	Olives, stuffed	0.12	1
27 F-S Colors, Flavors, Nutraceuticals	75510050	Olive tapenade	0.12	1
27 F-S Colors, Flavors, Nutraceuticals	75511020	Peppers, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75511040	Pepper, hot, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75511100	Pickles, NFS	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75511300	Pickles, fried	0.12	1
27 F-S Colors, Flavors, Nutraceuticals	75512010	Radishes, pickled, Hawaiian style	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75513010	Seaweed, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75515100	Vegetables, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75534030	Turnip, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75535000	Zucchini, pickled	0.024	1
27 F-S Colors, Flavors, Nutraceuticals	75600150	Soup, cream of, NFS	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75601000	Asparagus soup, cream of, NS as to made with milk or water	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75601010	Asparagus soup, cream of, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75601020	Asparagus soup, cream of, prepared with water	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75603010	Celery soup, cream of, prepared with milk, home recipe, canned or ready-to-serve	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75603020	Celery soup, cream of, prepared with water, home recipe, canned or ready-to-serve	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75604010	Corn soup, cream of, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75604020	Corn soup, cream of, prepared with water	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75605010	Leek soup, cream of, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75607010	Mushroom soup, cream of, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75607020	Mushroom soup, cream of, prepared with water	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75607050	Mushroom soup, cream of, low sodium, prepared with water	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75607060	Mushroom soup, cream of, NS as to made with milk or water	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75607080	Mushroom with chicken soup, cream of, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75607090	Mushroom soup, cream of, canned, reduced sodium, NS as to made with milk or water	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75607100	Mushroom soup, cream of, canned, reduced sodium, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75607140	Mushroom soup, cream of, canned, reduced sodium, prepared with water	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75608010	Onion soup, cream of, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75611010	Vegetable soup, cream of, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75612010	Zucchini soup, cream of, prepared with milk	0.156	1
27 F-S Colors, Flavors, Nutraceuticals	75657000	Vegetable broth, bouillon	0.0135	1
27 F-S Colors, Flavors, Nutraceuticals	81100500	Butter, NFS	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	81101000	Butter, stick	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	81101010	Butter, tub	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	81101520	Butter, light	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	81103090	Butter replacement, liquid	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	81104490	Butter-oil blend, NFS	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	81104500	Butter-oil blend, stick	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	81104510	Butter-oil blend, tub	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	81104550	Butter-oil blend, light	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	81106010	Butter replacement, powder	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	81200100	Oil or table fat, NFS	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	81203000	Shortening, NS as to vegetable or animal	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	81204000	Ghee, clarified butter	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	81322000	Honey butter	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82101000	Vegetable oil, NFS	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82101300	Almond oil	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82101500	Coconut oil	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82102000	Corn oil	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82103000	Cottonseed oil	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82103500	Flaxseed oil	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82104000	Olive oil	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82105000	Peanut oil	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82105500	Canola oil	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82106000	Safflower oil	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82107000	Sesame oil	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82108000	Soybean oil	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82108500	Sunflower oil	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82108700	Walnut oil	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	82109000	Wheat germ oil	0.003	1
27 F-S Colors, Flavors, Nutraceuticals	91401000	Jelly, all flavors	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	91402000	Jam, preserve, all flavors	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	91403000	Fruit butter, all flavors	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	91404000	Marmalade, all flavors	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	91405000	Jelly, sugar free, all flavors	0.009	1

27 F-S Colors, Flavors, Nutraceuticals	91405500	Jelly, reduced sugar, all flavors	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	91406000	Jam, preserve, marmalade, sugar free, all flavors	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	91406500	Jam, preserve, marmalade, sweetened with fruit juice concentrates, all flavors	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	91406600	Jam, preserve, marmalade, reduced sugar, all flavors	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	91407100	Guava paste	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	91601000	Italian Ice	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	91601010	Italian Ice, no sugar added	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	91610900	Popsicle, NFS	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	91611000	Popsicle	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	91611100	Popsicle, no sugar added	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	91612000	Freezer pop	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	91621000	Snow cone	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	91621050	Snow cone, no sugar added	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	91700010	Candy, NFS	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91701020	Almonds, sugar-coated	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91701030	Almonds, yogurt-covered	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91702010	Butterscotch morsels	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91703010	Caramel, chocolate-flavored roll	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91703020	Caramel, flavor other than chocolate	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91703030	Caramel, with nuts	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91703080	Caramel, all flavors, sugar free	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91703500	Nuts, carob-coated	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91706100	Coconut candy, no chocolate covering	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91706400	Coconut candy, Puerto Rican style	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91707000	Fondant	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91708000	Fruit peel, candied	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	91708010	Date candy	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91708020	Soft fruit confections	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91708030	Fruit leather and fruit snacks candy	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91708040	Fun Fruits Creme Supremes	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91708070	Tamarind candy	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91708100	Fruit snacks candy, with high vitamin C	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91708150	Yogurt covered fruit snacks candy, with added vitamin C	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91708160	Yogurt covered fruit snacks candy rolls, with high vitamin C	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91713050	Fudge, peanut butter	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91713060	Fudge, peanut butter, with nuts	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91713070	Fudge, vanilla	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91713080	Fudge, vanilla, with nuts	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91713090	Fudge, divinity	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91713100	Fudge, brown sugar, penuche	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91716010	Halvah, plain	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91718000	Honey-combed hard candy with peanut butter	0.78	1
27 F-S Colors, Flavors, Nutraceuticals	91718300	Ladoo, round ball, Asian-Indian dessert	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91721000	Licorice	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91723000	Marshmallow	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91723020	Marshmallow, candy-coated	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91726000	Nougat, plain	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91728500	Sugared pecans, sugar and egg white coating	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91731100	Peanuts, sugar-coated	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91731150	Peanuts, yogurt covered	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91732000	Peanut bar	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91732100	Planters Peanut Bar	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91733000	Peanut brittle	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91734200	Reese's Pieces	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91734500	Peanut butter morsels	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91735000	Pralines	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91736000	Pineapple candy, Puerto Rican style	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91739600	Raisins, yogurt covered	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91742010	Sesame Crunch, Sahadi	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91745010	Gumdrops	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91745020	Hard candy	0.78	1
27 F-S Colors, Flavors, Nutraceuticals	91745040	Butterscotch hard candy	0.78	1
27 F-S Colors, Flavors, Nutraceuticals	91745100	Skittles	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91750000	Taffy	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91760000	Toffee, plain	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91760700	Wax candy, liquid filled	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91770000	Dietetic or low calorie candy, NFS	0.78	1
27 F-S Colors, Flavors, Nutraceuticals	91770010	Dietetic or low calorie gumdrops	0.3	1
27 F-S Colors, Flavors, Nutraceuticals	91770020	Dietetic or low calorie hard candy	0.78	1
27 F-S Colors, Flavors, Nutraceuticals	91770050	Dietetic or low calorie mints	0.78	1
27 F-S Colors, Flavors, Nutraceuticals	92400000	Soft drink, NFS	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92400100	Soft drink, NFS, diet	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410110	Carbonated water, sweetened	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410210	Carbonated water, unsweetened	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410250	Carbonated water, sweetened, with low-calorie or no-calorie sweetener	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410310	Soft drink, cola	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410315	Soft drink, cola, reduced sugar	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410320	Soft drink, cola, diet	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410340	Soft drink, cola, decaffeinated	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410350	Soft drink, cola, decaffeinated, diet	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410360	Soft drink, pepper type	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410370	Soft drink, pepper type, diet	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410390	Soft drink, pepper type, decaffeinated	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410400	Soft drink, pepper type, decaffeinated, diet	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410410	Soft drink, cream soda	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410420	Soft drink, cream soda, diet	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410510	Soft drink, fruit flavored, caffeine free	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410520	Soft drink, fruit flavored, diet, caffeine free	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410550	Soft drink, fruit flavored, caffeine containing	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410560	Soft drink, fruit flavored, caffeine containing, diet	0.009	1

27 F-S Colors, Flavors, Nutraceuticals	92410610	Soft drink, ginger ale	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410620	Soft drink, ginger ale, diet	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410710	Soft drink, root beer	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410720	Soft drink, root beer, diet	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410810	Soft drink, chocolate flavored	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92410820	Soft drink, chocolate flavored, diet	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92411510	Soft drink, cola, fruit or vanilla flavored	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92411520	Soft drink, cola, chocolate flavored	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92411610	Soft drink, cola, fruit or vanilla flavored, diet	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92411620	Soft drink, cola, chocolate flavored, diet	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	92513000	Slush frozen drink	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	92513010	Slush frozen drink, no sugar added	0.006	1
27 F-S Colors, Flavors, Nutraceuticals	93101000	Beer	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93102000	Beer, light	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93102100	Beer, low carb	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93102200	Beer, light, higher alcohol	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93102300	Beer, higher alcohol	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93106000	Alcoholic malt beverage, sweetened	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93106010	Alcoholic malt beverage, higher alcohol, sweetened	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93106100	Alcoholic malt beverage	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93106500	Hard cider	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93401010	Wine, table, red	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93401020	Wine, table, white	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93401030	Wine, table, rose	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93401100	Wine, rice	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93403000	Wine, light	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93404000	Wine cooler	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93404550	Sangria, red	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93404560	Sangria, white	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93405000	Wine spritzer	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93406000	Glug	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93501000	Brandy	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93502000	Whiskey	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93502100	Scotch	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93503000	Gin	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93504000	Rum	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93504100	Rum cooler	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93505000	Vodka	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	93505100	Tequila	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95101000	Nutritional drink or shake, ready-to-drink (Boost)	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95101010	Nutritional drink or shake, ready-to-drink (Boost Plus)	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95102000	Nutritional drink or shake, ready-to-drink (Carnation Instant Breakfast)	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95103000	Nutritional drink or shake, ready-to-drink (Ensure)	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95103010	Nutritional drink or shake, ready-to-drink (Ensure Plus)	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95104000	Nutritional drink or shake, ready-to-drink, sugar free (Glucerna)	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95105000	Nutritional drink or shake, ready-to-drink (Kellogg's Special K Protein)	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95106000	Nutritional drink or shake, ready-to-drink (Muscle Milk)	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95106010	Nutritional drink or shake, ready-to-drink, light (Muscle Milk)	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95110000	Nutritional drink or shake, ready-to-drink (Slim Fast)	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95110010	Nutritional drink or shake, ready-to-drink, sugar free (Slim Fast)	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95110020	Nutritional drink or shake, high protein, ready-to-drink (Slim Fast)	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95120000	Nutritional drink or shake, ready-to-drink, NFS	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95120010	Nutritional drink or shake, high protein, ready-to-drink, NFS	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95120020	Nutritional drink or shake, high protein, light, ready-to-drink, NFS	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95120050	Nutritional drink or shake, liquid, soy-based	0.009	1
27 F-S Colors, Flavors, Nutraceuticals	95201000	Nutritional powder mix (Carnation Instant Breakfast)	0.009	8
27 F-S Colors, Flavors, Nutraceuticals	95201010	Nutritional powder mix, sugar free (Carnation Instant Breakfast)	0.009	8
27 F-S Colors, Flavors, Nutraceuticals	95201200	Nutritional powder mix (EAS Whey Protein Powder)	0.009	7
27 F-S Colors, Flavors, Nutraceuticals	95201300	Nutritional powder mix (EAS Soy Protein Powder)	0.009	7
27 F-S Colors, Flavors, Nutraceuticals	95201500	Nutritional powder mix, high protein (Herbalife)	0.009	7
27 F-S Colors, Flavors, Nutraceuticals	95201600	Nutritional powder mix (Isopure)	0.009	7
27 F-S Colors, Flavors, Nutraceuticals	95201700	Nutritional powder mix (Kellogg's Special K20 Protein Water)	0.009	7
27 F-S Colors, Flavors, Nutraceuticals	95202000	Nutritional powder mix (Muscle Milk)	0.009	8
27 F-S Colors, Flavors, Nutraceuticals	95202010	Nutritional powder mix, light (Muscle Milk)	0.009	8
27 F-S Colors, Flavors, Nutraceuticals	95210000	Nutritional powder mix (Slim Fast)	0.009	10
27 F-S Colors, Flavors, Nutraceuticals	95210010	Nutritional powder mix, sugar free (Slim Fast)	0.009	10
27 F-S Colors, Flavors, Nutraceuticals	95210020	Nutritional powder mix, high protein (Slim Fast)	0.009	10
27 F-S Colors, Flavors, Nutraceuticals	95220000	Nutritional powder mix, NFS	0.009	6
27 F-S Colors, Flavors, Nutraceuticals	95220010	Nutritional powder mix, high protein, NFS	0.009	6
27 F-S Colors, Flavors, Nutraceuticals	95230000	Nutritional powder mix, whey based, NFS	0.009	7
27 F-S Colors, Flavors, Nutraceuticals	95230010	Nutritional powder mix, protein, soy based, NFS	0.009	7
27 F-S Colors, Flavors, Nutraceuticals	95230020	Nutritional powder mix, protein, light, NFS	0.009	7
27 F-S Colors, Flavors, Nutraceuticals	95230030	Nutritional powder mix, protein, NFS	0.009	7
27 F-S Colors, Flavors, Nutraceuticals	99995130	Wheat bread as ingredient in sandwiches	0.0177	1
27 F-S Colors, Flavors, Nutraceuticals	99995135	Wheat bun as ingredient in sandwiches	0.0177	1

In instances where the chocolate fraction cannot be confidently separated using the FNDDS, the adjustment factor stayed at 100% to be conservative.

28 Chocolate and Chocolate-Containing Products	13110470	Gelato, chocolate	0.3	1
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28 Chocolate and Chocolate-Containing Products	13200110	Pudding, chocolate, NFS	0.3	1	
28 Chocolate and Chocolate-Containing Products	13220120	Pudding, chocolate, made from dry mix	0.3	1	
28 Chocolate and Chocolate-Containing Products	13220220	Pudding, chocolate, made from dry mix, sugar free	0.3	1	
28 Chocolate and Chocolate-Containing Products	13230130	Pudding, chocolate, ready-to-eat	0.3	1	
28 Chocolate and Chocolate-Containing Products	13230140	Pudding, chocolate, ready-to-eat, sugar free	0.3	1	
28 Chocolate and Chocolate-Containing Products	42203100	Peanut butter and chocolate spread	0.3	1	
28 Chocolate and Chocolate-Containing Products	42501500	Trail mix with chocolate	0.3	1	
28 Chocolate and Chocolate-Containing Products	51166200	Croissant, chocolate	0.3	0.2	
28 Chocolate and Chocolate-Containing Products	52302500	Muffin, chocolate chip	0.3	0.15	
28 Chocolate and Chocolate-Containing Products	52302600	Muffin, chocolate	0.3	0.05	
28 Chocolate and Chocolate-Containing Products	53100050	Cake batter, raw, chocolate	0.3	1	
28 Chocolate and Chocolate-Containing Products	53102800	Cake or cupcake, Black Forest	0.3	1	
28 Chocolate and Chocolate-Containing Products	53104600	Cheesecake, chocolate	0.3	1	
28 Chocolate and Chocolate-Containing Products	53105270	Cake or cupcake, chocolate, devil's food or fudge, with icing or filling	0.3	1	
28 Chocolate and Chocolate-Containing Products	53105275	Cake or cupcake, chocolate, devil's food or fudge, without icing or filling	0.3	1	
28 Chocolate and Chocolate-Containing Products	53105300	Cake or cupcake, German chocolate, with icing or filling	0.3	1	
28 Chocolate and Chocolate-Containing Products	53105500	Cake, chocolate, with icing, diet	0.3	1	
28 Chocolate and Chocolate-Containing Products	53108200	Snack cake, chocolate, with icing or filling	0.3	1	
28 Chocolate and Chocolate-Containing Products	53108220	Snack cake, chocolate, with icing or filling, reduced fat and calories	0.3	1	
28 Chocolate and Chocolate-Containing Products	53116270	Cake, pound, chocolate	0.3	1	
28 Chocolate and Chocolate-Containing Products	53118300	Cake, sponge, chocolate	0.3	1	
28 Chocolate and Chocolate-Containing Products	53204000	Cookie, brownie, NS as to icing	0.3	1	
28 Chocolate and Chocolate-Containing Products	53204010	Cookie, brownie, without icing	0.3	1	
28 Chocolate and Chocolate-Containing Products	53204100	Cookie, brownie, with icing or filling	0.3	1	
28 Chocolate and Chocolate-Containing Products	53204840	Cookie, brownie, reduced fat, NS as to icing	0.3	1	
28 Chocolate and Chocolate-Containing Products	53204860	Cookie, brownie, fat free, NS as to icing	0.3	1	
28 Chocolate and Chocolate-Containing Products	53205260	Cookie, bar, with chocolate	0.3	1	
					22% chocolate (at 0.3% use level) and 78% cookie (at 0.117% use level). Calculated as: $((0.22*0.3)+(0.78*0.117))/$
28 Chocolate and Chocolate-Containing Products	53206000	Cookie, chocolate chip	0.3	0.5242	0.3 22% chocolate (at 0.3% use level) and 78% cookie (at 0.117% use level). Calculated as: $((0.22*0.3)+(0.78*0.117))/$
28 Chocolate and Chocolate-Containing Products	53206020	Cookie, chocolate chip, made from home recipe or purchased at a bakery	0.3	0.5242	0.3 22% chocolate (at 0.3% use level) and 78% cookie (at 0.117% use level). Calculated as: $((0.22*0.3)+(0.78*0.117))/$
28 Chocolate and Chocolate-Containing Products	53206030	Cookie, chocolate chip, reduced fat	0.3	0.5242	0.3 22% chocolate (at 0.3% use level) and 78% cookie (at 0.117% use level). Calculated as: $((0.22*0.3)+(0.78*0.117))/$
28 Chocolate and Chocolate-Containing Products	53206100	Cookie, chocolate chip sandwich	0.3	0.5242	0.3
28 Chocolate and Chocolate-Containing Products	53206500	Cookie, chocolate, made with rice cereal	0.3	1	
28 Chocolate and Chocolate-Containing Products	53206550	Cookie, chocolate, made with oatmeal and coconut, no bake	0.3	1	
28 Chocolate and Chocolate-Containing Products	53207000	Cookie, chocolate or fudge	0.3	1	
28 Chocolate and Chocolate-Containing Products	53207020	Cookie, chocolate or fudge, reduced fat	0.3	1	
28 Chocolate and Chocolate-Containing Products	53207050	Cookie, chocolate, with chocolate filling or coating, fat free	0.3	1	
28 Chocolate and Chocolate-Containing Products	53208000	Cookie, marshmallow, chocolate-covered	0.3	1	
28 Chocolate and Chocolate-Containing Products	53208200	Cookie, marshmallow pie, chocolate covered	0.3	1	
28 Chocolate and Chocolate-Containing Products	53209005	Cookie, chocolate, with icing or coating	0.3	1	
28 Chocolate and Chocolate-Containing Products	53209015	Cookie, chocolate sandwich	0.3	1	
28 Chocolate and Chocolate-Containing Products	53209020	Cookie, chocolate sandwich, reduced fat	0.3	1	
28 Chocolate and Chocolate-Containing Products	53209100	Cookie, chocolate, sandwich, with extra filling	0.3	1	
28 Chocolate and Chocolate-Containing Products	53209500	Cookie, chocolate and vanilla sandwich	0.3	1	
28 Chocolate and Chocolate-Containing Products	53210900	Cookie, graham cracker with chocolate and marshmallow	0.3	1	
28 Chocolate and Chocolate-Containing Products	53211000	Cookie bar, with chocolate, nuts, and graham crackers	0.3	1	

					22% chocolate (at 0.3% use level) and 78% cookie (at 0.117% use level). Calculated as: $((0.22*0.3)+(0.78*0.117))/$
28 Chocolate and Chocolate-Containing Products	53226550	Cookie, marshmallow, with rice cereal and chocolate chips	0.3	0.5242	0.3 22% chocolate (at 0.3% use level) and 78% cookie (at 0.117% use level). Calculated as: $((0.22*0.3)+(0.78*0.117))/$
28 Chocolate and Chocolate-Containing Products	53233060	Cookie, oatmeal, with chocolate chips	0.3	0.5242	0.3 22% chocolate (at 0.3% use level) and 78% cookie (at 0.117% use level). Calculated as: $((0.22*0.3)+(0.78*0.117))/$
28 Chocolate and Chocolate-Containing Products	53233100	Cookie, oatmeal, with chocolate and peanut butter, no bake	0.3	0.5242	0.3
28 Chocolate and Chocolate-Containing Products	53234100	Cookie, peanut butter, with chocolate	0.3	1	
28 Chocolate and Chocolate-Containing Products	53235500	Cookie, with peanut butter filling, chocolate-coated	0.3	1	
28 Chocolate and Chocolate-Containing Products	53247500	Cookie, vanilla with caramel, coconut, and chocolate coating	0.3	1	22% chocolate (at 0.3% use level) and 78% cookie (at 0.117% use level). Calculated as: $((0.22*0.3)+(0.78*0.117))/$
28 Chocolate and Chocolate-Containing Products	53260030	Cookie, chocolate chip, sugar free	0.3	0.5242	0.3
28 Chocolate and Chocolate-Containing Products	53342000	Pie, chocolate cream	0.3	1	
28 Chocolate and Chocolate-Containing Products	53342070	Pie, chocolate cream, individual size or tart	0.3	1	
28 Chocolate and Chocolate-Containing Products	53371000	Pie, chiffon, chocolate	0.3	1	
28 Chocolate and Chocolate-Containing Products	53382000	Pie, chocolate-marshmallow	0.3	1	
28 Chocolate and Chocolate-Containing Products	53387000	Pie, Toll house chocolate chip	0.3	1	
28 Chocolate and Chocolate-Containing Products	53391150	Pie shell, chocolate wafer	0.3	1	
28 Chocolate and Chocolate-Containing Products	53430100	Crepe, chocolate filled	0.3	0.53	
28 Chocolate and Chocolate-Containing Products	53520120	Doughnut, chocolate	0.3	1	
28 Chocolate and Chocolate-Containing Products	53714200	Cereal or granola bar, chocolate coated, NFS	0.3	1	
28 Chocolate and Chocolate-Containing Products	53714210	Cereal or granola bar, with coconut, chocolate coated	0.3	1	
28 Chocolate and Chocolate-Containing Products	53714220	Cereal or granola bar with nuts, chocolate coated	0.3	1	
28 Chocolate and Chocolate-Containing Products	54102020	Graham crackers, chocolate covered	0.3	1	
28 Chocolate and Chocolate-Containing Products	54403160	Popcorn, chocolate coated	0.3	0.1	
28 Chocolate and Chocolate-Containing Products	54408200	Pretzels, hard, chocolate coated	0.3	0.397	
28 Chocolate and Chocolate-Containing Products	54408210	Pretzels, hard, white chocolate coated	0.3	0.397	
28 Chocolate and Chocolate-Containing Products	55100025	Pancakes, with chocolate, from frozen	0.3	0.05	
28 Chocolate and Chocolate-Containing Products	55100060	Pancakes, with chocolate, from fast food / restaurant	0.3	0.165	
28 Chocolate and Chocolate-Containing Products	55103100	Pancakes, with chocolate	0.3	0.169	
28 Chocolate and Chocolate-Containing Products	55200050	Waffle, chocolate, from frozen	0.3	0.05	
28 Chocolate and Chocolate-Containing Products	55200110	Waffle, chocolate, from fast food / restaurant	0.3	0.156	
28 Chocolate and Chocolate-Containing Products	55203600	Waffle, chocolate	0.3	0.165	
28 Chocolate and Chocolate-Containing Products	63401070	Fruit, chocolate covered	0.3	1	
28 Chocolate and Chocolate-Containing Products	91301080	Chocolate syrup	0.3	1	
28 Chocolate and Chocolate-Containing Products	91301081	Chocolate syrup, light	0.3	1	
28 Chocolate and Chocolate-Containing Products	91304020	Topping, chocolate	0.3	1	
28 Chocolate and Chocolate-Containing Products	91306030	Chocolate dip	0.3	1	
28 Chocolate and Chocolate-Containing Products	91700500	M&M's Almond Chocolate Candies	0.3	1	
28 Chocolate and Chocolate-Containing Products	91701010	Almonds, chocolate covered	0.3	1	
28 Chocolate and Chocolate-Containing Products	91703040	Caramel candy, chocolate covered	0.3	1	
28 Chocolate and Chocolate-Containing Products	91703050	Caramel with nuts and cereal, chocolate covered	0.3	1	
28 Chocolate and Chocolate-Containing Products	91703060	Caramel with nuts, chocolate covered	0.3	1	
28 Chocolate and Chocolate-Containing Products	91703070	Rolo	0.3	1	
28 Chocolate and Chocolate-Containing Products	91703150	Toblerone, milk chocolate with honey and almond nougat	0.3	1	
28 Chocolate and Chocolate-Containing Products	91703200	TWIX Caramel Cookie Bars	0.3	1	
28 Chocolate and Chocolate-Containing Products	91703250	TWIX Chocolate Fudge Cookie Bars	0.3	1	
28 Chocolate and Chocolate-Containing Products	91703300	TWIX Peanut Butter Cookie Bars	0.3	1	
28 Chocolate and Chocolate-Containing Products	91703400	Whatchamacallit	0.3	1	
28 Chocolate and Chocolate-Containing Products	91703600	Espresso coffee beans, chocolate-covered	0.3	1	
28 Chocolate and Chocolate-Containing Products	91705010	Milk chocolate candy, plain	0.3	1	

28 Chocolate and Chocolate-Containing Products	91705020	Milk chocolate candy, with cereal	0.3	1
28 Chocolate and Chocolate-Containing Products	91705030	Kit Kat	0.3	1
28 Chocolate and Chocolate-Containing Products	91705040	Chocolate, milk, with nuts, not almond or peanuts	0.3	1
28 Chocolate and Chocolate-Containing Products	91705050	Milk chocolate candy, with fruit and nuts	0.3	1
28 Chocolate and Chocolate-Containing Products	91705060	Milk chocolate candy, with almonds	0.3	1
28 Chocolate and Chocolate-Containing Products	91705070	Chocolate, milk, with peanuts	0.3	1
28 Chocolate and Chocolate-Containing Products	91705090	Chocolate candy with fondant and caramel	0.3	1
28 Chocolate and Chocolate-Containing Products	91705200	Chocolate, semi-sweet morsel	0.3	1
28 Chocolate and Chocolate-Containing Products	91705300	Chocolate, sweet or dark	0.3	1
28 Chocolate and Chocolate-Containing Products	91705310	Chocolate, sweet or dark, with almonds	0.3	1
28 Chocolate and Chocolate-Containing Products	91705400	Chocolate, white	0.3	1
28 Chocolate and Chocolate-Containing Products	91705410	Chocolate, white, with almonds	0.3	1
28 Chocolate and Chocolate-Containing Products	91705420	Chocolate, white, with cereal	0.3	1
28 Chocolate and Chocolate-Containing Products	91705430	Kit Kat White	0.3	1
28 Chocolate and Chocolate-Containing Products	91705500	Mexican chocolate, tablet	0.3	1
28 Chocolate and Chocolate-Containing Products	91706000	Coconut candy, chocolate covered	0.3	1
28 Chocolate and Chocolate-Containing Products	91707010	Fondant, chocolate covered	0.3	1
28 Chocolate and Chocolate-Containing Products	91709000	Gumdrops, chocolate covered	0.3	1
28 Chocolate and Chocolate-Containing Products	91713010	Fudge, chocolate, chocolate-coated	0.3	1
28 Chocolate and Chocolate-Containing Products	91713020	Fudge, chocolate, chocolate-coated, with nuts	0.3	1
28 Chocolate and Chocolate-Containing Products	91713030	Fudge, chocolate	0.3	1
28 Chocolate and Chocolate-Containing Products	91713040	Fudge, chocolate, with nuts	0.3	1
28 Chocolate and Chocolate-Containing Products	91715000	Fudge, caramel and nut, chocolate-coated candy	0.3	1
28 Chocolate and Chocolate-Containing Products	91715100	SNICKERS Bar	0.3	1
28 Chocolate and Chocolate-Containing Products	91715200	Baby Ruth	0.3	1
28 Chocolate and Chocolate-Containing Products	91715300	100 GRAND Bar	0.3	1
28 Chocolate and Chocolate-Containing Products	91716110	Halvah, chocolate covered	0.3	1
28 Chocolate and Chocolate-Containing Products	91718050	Honey-combed hard candy with peanut butter, chocolate covered	0.3	1
28 Chocolate and Chocolate-Containing Products	91718100	Butterfinger	0.3	1
28 Chocolate and Chocolate-Containing Products	91718110	Butterfinger Crisp	0.3	1
28 Chocolate and Chocolate-Containing Products	91718200	Chocolate-flavored sprinkles	0.3	1
28 Chocolate and Chocolate-Containing Products	91723010	Marshmallow, chocolate covered	0.3	1
28 Chocolate and Chocolate-Containing Products	91726110	Nougat, with caramel, chocolate covered	0.3	1
28 Chocolate and Chocolate-Containing Products	91726130	MILKY WAY Bar	0.3	1
28 Chocolate and Chocolate-Containing Products	91726140	MILKY WAY MIDNIGHT Bar	0.3	1
28 Chocolate and Chocolate-Containing Products	91726150	MARS Almond Bar	0.3	1
28 Chocolate and Chocolate-Containing Products	91726410	Nougat, chocolate covered	0.3	1
28 Chocolate and Chocolate-Containing Products	91726420	3 MUSKETEERS Bar	0.3	1
28 Chocolate and Chocolate-Containing Products	91726425	3 Musketeers Truffle Crisp Bar	0.3	1
28 Chocolate and Chocolate-Containing Products	91727010	Nuts, chocolate covered, not almonds or peanuts	0.3	1
28 Chocolate and Chocolate-Containing Products	91728000	Nut roll, fudge or nougat, caramel and nuts	0.3	1
28 Chocolate and Chocolate-Containing Products	91731000	Peanuts, chocolate covered	0.3	1
28 Chocolate and Chocolate-Containing Products	91731010	M&M's Peanut Chocolate Candies	0.3	1
28 Chocolate and Chocolate-Containing Products	91731060	M&M's Peanut Butter Chocolate Candies	0.3	1
28 Chocolate and Chocolate-Containing Products	91733200	Peanut Bar, chocolate covered candy	0.3	1
28 Chocolate and Chocolate-Containing Products	91734000	Peanut butter, chocolate covered	0.3	1
28 Chocolate and Chocolate-Containing Products	91734100	Reese's Peanut Butter Cup	0.3	1
28 Chocolate and Chocolate-Containing Products	91734300	Reese's Sticks	0.3	1
28 Chocolate and Chocolate-Containing Products	91734400	Reese's Fast Break	0.3	1
28 Chocolate and Chocolate-Containing Products	91734450	Reese's Crispy Crunchy Bar	0.3	1
28 Chocolate and Chocolate-Containing Products	91739010	Raisins, chocolate covered	0.3	1
28 Chocolate and Chocolate-Containing Products	91746010	Sugar-coated chocolate discs	0.3	1
28 Chocolate and Chocolate-Containing Products	91746100	M&M's Milk Chocolate Candies	0.3	1
28 Chocolate and Chocolate-Containing Products	91746120	Sixlets	0.3	1
28 Chocolate and Chocolate-Containing Products	91746150	Easter egg, candy coated chocolate	0.3	1
28 Chocolate and Chocolate-Containing Products	91746200	M&M's Pretzel Chocolate Candies	0.3	1
28 Chocolate and Chocolate-Containing Products	91760100	Toffee, chocolate covered	0.3	1
28 Chocolate and Chocolate-Containing Products	91760200	Toffee, chocolate-coated, with nuts	0.3	1
28 Chocolate and Chocolate-Containing Products	91760500	Truffles	0.3	1
28 Chocolate and Chocolate-Containing Products	91770030	Dietetic or low calorie candy, chocolate covered	0.3	1



Table 1 Summary of the Individual Approved and Proposed Food-Uses and Use-Levels for Sucrose Fatty Acid Esters in the U.S.

Food Category (21 CFR 170.3)	Food-Uses	Sucrose Fatty Acid Esters Use-Level (%)	% Contribution to Mean Total Population Intakes
Approved Food Uses^a			
Alcoholic Beverages	Mixed Drinks, Cocktails, and Dessert Drinks	0.2	0.0
Baked Goods and Baking Mixes	Biscuit Mixes	1.0	4.1 to 4.5
	Cakes	0.5	5.4 to 5.5
	White Breads	0.01 to 0.55	12.8 to 13.0
	White Rolls	0.01 to 0.48	10.0
Beverages and Beverage Bases	Fruit-Flavored Beverages	0.005	0.8
Breakfast Cereals	RTE Breakfast Cereals	0.2	6.5 to 6.6
Chewing Gum	Chewing Gum	0.5	0.1
Confections and Frostings	Frostings	0.5	0.6
Dairy Product Analogs	Coffee Whiteners	0.5	0.1
Fats and Oils	Margarine	0.5	0.4
	Fat Emulsions for Bakery Wares ^b	1.0	0.5 to 0.6
	Mayonnaise and Mayonnaise-Type Dressings	0.5	1.2
	Salad Dressings	0.5	2.9 to 3.0
Fish Products	Surimi-Based Fish Products	1.0	0.0
	Battered Fried Fish Products	0.3	0.4
Fresh Fruits and Vegetables	Raw Fruits	0.0056 to 0.0083	1.8 to 1.9
Frozen Dairy Desserts and Mixes	Ice Cream, Ice Milk, and Sherbet	0.3	11.4 to 11.9
Grain Products and Pastas	Cereal Bars	0.2	1.1
Gravies and Sauces	Sauces and Cooking Sauces	0.5	4.4
Meat Products	Battered Fried Meat Products	0.3	0.2 to 0.3
Milk Products	Dairy-Based Toppings	2.0	0.8
Poultry Products	Battered Fried Poultry Products	0.3	2.2
Processed Fruits and Fruit Juices	Processed Fruit Filling Preparations	0.5	0.0
Processed Vegetables and Vegetable Juices	Battered Fried Vegetable Products	0.3	0.1
Snack Foods	Potato Stick Type Products	0.5	0.2
Other	Fat-Soluble Colors ^c	0.0003 to 2.9 (in final food)	21.8 to 22.4
	Fat-Soluble Flavors ^d		
	Fat-Soluble Nutraceutical Substances ^d		
Proposed Food Uses^e			
Soft Candy	Chocolate and Chocolate-Containing products	0.3	9.2 to 9.3

CFR = Code of Federal Regulations; RTE = ready-to-eat; U.S. = United States.

^a Approved conditions of use based on GRAS Notice (GRN) 514.

^b No food codes for these food uses were available in the NHANES 2017-18 dataset; however, food codes for wafers containing fillings were used as surrogate food codes in line with the previous GRN 514.



Food Category (21 CFR 170.3)	Food-Uses	Sucrose Fatty Acid Esters Use-Level (%)	% Contribution to Mean Total Population Intakes
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^c No food codes were identified for fat-soluble colors in the NHANES 2017-18 dataset; however, food uses and use levels in which β-carotene, lycopene, carmine, turmeric, and turmeric oleoresin are permitted were selected to approximate the consumption of sucrose esters from its proposed use in fat-soluble colors (see Table 2 below).

^d No food codes were identified for fat-soluble flavors and fat-soluble nutraceutical substances in the NHANES 2017-18 dataset; however, the use levels for fat-soluble colors was assumed to represent the exposure to all 3 categories (i.e., fat-soluble colors, fat-soluble flavors, and fat-soluble nutraceutical substances).

^e Sucrose fatty acid esters is intended for use in unstandardized products where standards of identity, as established under 21 CFR §130 to 169, do not permit its addition in standardized products.

Table 2 Summary of the Existing Food-Uses and Use-Levels Fat-Soluble Colors, Flavors, and Nutraceutical Substances^a in the U.S.

Food Category (21 CFR 170.3)	Food-Uses ^b	Beta-Carotene	Lycopene	Carmine	Turmeric
		Typical Concentration in Food	Typical Concentration in Food	Typical Concentration in Food	Typical Concentration in Food
Alcoholic Beverages	Alcoholic Beverages	0.0090%	0.0060%	NA	NA
Baked Goods and Baking Mixes	Bread Products (Excluding White Breads and White Rolls)	NA	NA	NA	0.0177%
	Cookies	NA	NA	NA	0.117%
	Crackers	0.0060%	NA	NA	NA
	Fruit Cakes/Cones	NA	NA	2.9%	NA
	Fruit-Filled Pies	NA	NA	NA	0.051%
	Wafers	NA	0.006%	NA	NA
Beverages and Beverage Bases	Carbonated Beverages	0.0090%	0.006%	NA	NA
	Meal Replacement Beverages	0.0090%	0.006%	NA	NA
Cheeses	Cream Cheese	NA	0.006%	NA	0.0159%
	Flavored Processed Cheese	NA	0.006%	NA	NA
Condiments and Relishes	Chutneys, Ketchup, and Salsas	NA	0.015%	NA	0.0069%
	Pickles/Relishes	NA	0.015%	NA	0.024%
	Prepared Mustard	NA	0.009%	NA	1.680%
	Olives	NA	NA	NA	0.120%
Dairy Product Analogs	Non-Dairy Milk	0.003%	NA	NA	NA
	Non-Dairy Toppings	0.003%	NA	NA	NA
Egg Products	Egg Products	NA	NA	NA	0.3600%
Fats and Oils	Butter	0.0030%	NA	NA	NA
	Cooking Oil	0.0030%	NA	NA	NA



	Vegetable Shortening	0.0030%	NA	NA	NA
Fish Products	Frozen Fish Meals	NA	NA	NA	0.5700%
	Fish/Crustacean Pastes	NA	0.009%	NA	NA
	Fish Roe	NA	0.009%	NA	NA
	Pre-cooked Crustaceans	NA	0.0075%	NA	NA
	Processed Frozen Fish Products	NA	NA	NA	0.003%
	Smoked Fish	NA	0.009%	NA	NA
Fruit and Water Ices	Edible Ices	NA	0.006%	NA	NA
Grain Products & Pasta	Flavored Rice	NA	NA	NA	0.0279%
Hard Candy	Hard Candy	NA	0.009%	0.7800%	NA
Jams and Jellies	Jams, Jellies, Marmalades, and Other Similar Fruit Preparations	NA	0.009%	NA	NA
Milk Products	Flavored Milk Products	NA	0.0045%	NA	NA
	Sour Cream	NA	NA	NA	0.9900%
	Yogurt	NA	NA	NA	0.0003%
Nuts and Nut Products	Dry Roasted Seeds & Nuts	NA	0.015%	NA	0.9000%
Plant Protein Products	Meat and Fish Analogues	NA	0.015%	NA	NA
	Salmon Substitutes ^c	NA	0.015%	NA	NA
Processed Fruits and Fruit Juices	Candied Fruits	NA	0.006%	NA	NA
	Preserves of Red Fruits	NA	0.006%	NA	NA
	Processed Fruits	0.009%	NA	NA	NA
Processed Vegetables	Candied Vegetables	NA	0.006%	NA	NA
	Specialty Vegetables ^c	NA	NA	NA	0.0162%
Seasonings and Flavors	Products other than MSG ^c	NA	NA	NA	30.0%
	Meat Tenderizers ^c	NA	NA	NA	1.00%
	Table Salt ^c	NA	NA	NA	3.90%
Snack Foods	Savory Snacks	NA	0.006%	NA	NA
Soft Candy	Chocolate	NA	0.009%	NA	NA
	Soft Candy	NA	0.009%	0.300%	NA
Soup and Soup Mixes	Bouillon	0.0039%	0.009%	NA	0.0135%
	Creamed Soups	0.0039%	0.009%	NA	0.1560%

CFR = Code of Federal Regulations; MSG = monosodium glutamate; NA = not available; U.S. = United States.

^a Individual existing food uses and use levels of beta-carotene, lycopene, carmine, turmeric, and turmeric oleoresin were obtained from the "1977 Survey of Industry on the Use of Food Additives" (NRC, 1979), and based on the table described in GRN 514.



^b The maximum level of beta-carotene, lycopene, carmine, and turmeric/turmeric oleoresin in each food-use was used to estimate the expected sucrose fatty acid esters' levels resulting from the combined exposure of fat-soluble colors, flavors, and nutraceutical substances. The value applied for each food use has been **bolded** to emphasize each.

^c No food codes for these food uses were available in the NHANES 2017-18 dataset.

Table 3 Summary of the Estimated Daily Intake of Sucrose Fatty Acid Esters from Approved and Proposed Food Uses in the U.S. by Population Group (2017-2018 NHANES Data)

Population Group	Age Group (Years)	Per Capita Intake (mg/day)		Consumer-Only Intake (mg/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
Children	2 to 11	464	841	100	1,151	464	841
Children	3 to 11	487	855	100	998	487	855

n = sample size; NHANES = National Health and Nutrition Examination Survey; U.S. = United States.

Table 4 Summary of the Estimated Daily Per Kilogram Body Weight Intake of Sucrose Fatty Acid Esters from Approved and Proposed Food Uses in the U.S. by Population Group (2017-2018 NHANES Data)

Population Group	Age Group (Years)	Per Capita Intake (mg/kg bw/day)		Consumer-Only Intake (mg/kg bw/day)			
		Mean	90 th Percentile	%	n	Mean	90 th Percentile
Children	2 to 11	17.9	34.5	100	1,141	17.9	34.5
Children	3 to 11	17.6	33.6	100	995	17.6	33.6

bw = body weight; n = sample size; NHANES = National Health and Nutrition Examination Survey; U.S. = United States.



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August 15, 2023

Via Electronic Mail

Christopher Kampmeyer, M.S.
Division of Food Ingredients
Office of Food Additive Safety
Center for Food Safety and Applied Nutrition
U.S. Food and Drug Administration
5001 Campus Drive
College Park, MD 20740

Re: Response to FDA's Second Set of Questions for GRAS Notice No. 001123

Dear Mr. Kampmeyer:

On behalf of Mitsubishi Chemical Corporation (Mitsubishi), we are writing in response to FDA's second set of questions regarding GRAS Notice (GRN) No. 001123 for sucrose fatty acid esters (SFAE). For ease of reference, we reproduce each question below, followed by Mitsubishi's response.

- 1. In the July 21, 2023 amendment, Mitsubishi provides updated specification limits for heavy metals, along with the results (reported as "not detected") from the analyses of three non-consecutive batches (Tables 1 and 3). Please clarify whether the "not detected" in Tables 1 and 3 represents the levels that are below the limit of quantitation (LOQ) or below the limit of detection (LOD). If it represents the levels below the LOD, please provide the LOD of the analytical method.**

We apologize for the lack of clarity and confirm that the "not detected" statement declared in Tables 1 and 3 of the July 21, 2023 amendment represents the levels that are below the limit of quantitation (LOQ). Revised Tables 1 and 3 are provided below, which include revised specifications for lead, cadmium, and mercury (further discussed in our response to Question 2 below).

REVISED Table 1: The analyses from three non-consecutive batches of SFAE for arsenic and lead.

Parameter	Specification	Lot 14192111	Lot 0X082411	Lot 2X212211
Arsenic (as As) (LOQ: 0.1µg/g)	NMT 0.7mg/kg	<0.1µg/g	<0.1µg/g	<0.1µg/g
Lead (LOQ: 0.05µg/g)	NMT 0.5mg/kg	<0.05µg/g	<0.05µg/g	<0.05µg/g

REVISED Table 3: The analyses from three non-consecutive batches of SFAE for cadmium and mercury.

Parameter	Specification	Lot 14192111	Lot 0X082411	Lot 2X212211
Cadmium (LOQ: 0.05µg/g)	NMT 0.5mg/kg	<0.05µg/g	<0.05µg/g	<0.05µg/g
Mercury (LOQ: 0.01µg/g)	NMT 0.1mg/kg	<0.01µg/g	<0.01µg/g	<0.01µg/g

- In addition, Mitsubishi states that they “...decided to lower the arsenic and lead specifications based on the SFAE products analyses” and that “...the lowest technologically achievable levels are the manufacturing specifications: NMT 0.7 mg/kg for arsenic and NMT 1 mg/kg for lead.” As provided in Tables 1 and 3, the results from the analyses of the batches of SFAE demonstrate that the measured levels for all tested heavy metals are much lower (assuming that “not detected” means a level below LOD or LOQ) than the proposed specification limits. Please clarify why Mitsubishi established that the lowest technologically achievable levels are 0.7 mg/kg (arsenic) and 1 mg/kg (lead, cadmium, and mercury), if those heavy metals are present in SFAE below the detectable levels (as reported in Tables 1 and 3). Furthermore, keeping in line with FDA’s Closer to Zero initiative that focuses on reducing dietary exposure to heavy metals, we recommend that Mitsubishi consider lowering further the specifications for heavy metals to better reflect the measured levels.**

Christopher Kampmeyer, M.S.

August 15, 2023

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In the July 21, 2023 amendment, Mitsubishi established revised specifications for arsenic (NMT 0.7mg/kg) and lead (NMT 1mg/kg), and new specifications for cadmium (NMT 1mg/kg) and mercury (NMT 1mg/kg) because these values appeared to be reasonable and would provide flexibility in the manufacturing process. However, Mitsubishi agrees that it can further lower the specifications for lead, cadmium, and mercury, per FDA’s recommendation to align with the Agency’s Closer to Zero initiative (referenced in the Question 2 prompt above). As shown in the Revised Tables 1 and 3, the newly-updated specifications are NMT 0.5mg/kg for lead, NMT 0.5mg/kg for cadmium, and NMT 0.1mg/kg for mercury. These values were determined by multiplying the LOQ by 10. The support for this approach is found in The European Food Safety Authority’s (EFSA) re-evaluation of the food additives E471 (mono- and diglycerides of fatty acids) and E475 (polyglycerol esters of fatty acids).^{1 2} In that proceeding, interested business operators proposed the “10 times LOQ” standard for the heavy metal specifications in those ingredients and this approach was not questioned by EFSA.

Mitsubishi did not revise the specification for arsenic because the result of multiplying that LOQ by 10 would be higher than the current specification of 0.7mg/kg.

For clarity, following is a revised version of Table 2 from the July 21, 2023 amendment presenting the specifications for SFAE and reflecting the updated values for lead, cadmium, and mercury.

¹ EFSA FAF Panel (EFSA Panel on Food Additives and Flavourings), Younes, M, Aquilina, G, Castle,

² EFSA FAF Panel (EFSA Panel on Food Additives and Flavourings), Younes, M, Aquilina, G, Castle, L, Engel, K, Fowler, P, Frutos Fernandez, MJ, Gundert-Remy, U, Gürtler, R, Husøy, T, Manco, M, Mennes, W, Moldeus, P, Passamonti, S, Shah, R, Waalkens-Berendsen, I, Wölfle, D, Wright, M, Cheyins, K, Mirat, M, Rincon, AM and Fürst, P, 2022. Scientific Opinion on the follow-up of the re-evaluation of polyglycerol esters of fatty acids (E 475) as a food additive. *EFSA Journal* 2022; 20(5):7308, 21 pp. <https://doi.org/10.2903/j.efsa.2022.7308> (discussed in Sections 3.2.1; 3.3.1; and 3.4).

REVISED Table 2: Revised Product Specifications for Mitsubishi’s SFAE

Parameter	Specification	Method
Assay (Mono-, di-, and tri-esters)	NLT 80.0%	JECFA High performance liquid chromatography
Free sucrose	NMT 4.0%	JECFA Gas chromatography
Acid value	NMT 5.0	JECFA Titration method
Residue on ignition	NMT 1.5%	JECFA Sulfating ashing method
Arsenic (as As)	NMT 0.7mg/kg	Inductively coupled plasma mass spectrometry
Lead	NMT 0.5mg/kg	Atomic absorption spectrometry
Cadmium	NMT 0.5mg/kg	Inductively coupled plasma mass spectrometry
Mercury	NMT 0.1mg/kg	Atomic absorption spectrometry
Methyl ethyl ketone	NMT 10mg/kg	JECFA Gas chromatography
Ethyl acetate	NMT 350mg/kg	JECFA Gas chromatography
Methanol	NMT 10mg/kg	JECFA Gas chromatography
Dimethylsulfoxide	NMT 2mg/kg	JECFA Gas chromatography
Isobutanol	NMT 10mg/kg	JECFA Gas chromatography
Moisture	NMT 4.0%	Karl Fischer’s Method
Aerobic plate count	NMT 300cfu/g	Japan’s Standard Methods of Analysis in Food Safety Regulation
Coliforms	Negative/2g	Japan’s Standard Methods of Analysis in Food Safety Regulation
Yeast and mold	Negative/0.1g	Japan’s Standard Methods of Analysis in Food Safety Regulation



Christopher Kampmeyer, M.S.
August 15, 2023
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* * *

Mitsubishi appreciates the Agency's continued review of GRAS Notice 1123. Please let us know if you have any other questions or if you need any additional information.

Cordially yours,

A grey rectangular box redacting the signature of Frederick A. Stearns.

Frederick A. Stearns



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September 28, 2023

Via Electronic Mail

Christopher Kampmeyer, M.S.
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Office of Food Additive Safety
Center for Food Safety and Applied Nutrition
U.S. Food and Drug Administration
5001 Campus Drive
College Park, MD 20740

Re: Response to FDA's Question Regarding Heavy Metal Specifications for GRAS Notice No. 001123

Dear Mr. Kampmeyer:

In response to our telephone conference on September 15, 2023 regarding GRAS Notice (GRN) No. 001123 for sucrose fatty acid esters (SFAE), Mitsubishi Chemical Corporation (Mitsubishi) has decided to lower the specifications for arsenic, lead, and cadmium to 0.1 mg/kg. The specification for mercury was already lowered to 0.1 mg/kg in the August 15, 2023 amendment. The updated specifications are included in **Table 1** below (highlighted in red).

Table 1: Revised Product Specifications for Mitsubishi's SFAE (9/28/23)

Parameter	Specification	Method
Assay (Mono-, di-, and tri-esters)	NLT 80.0%	JECFA High performance liquid chromatography
Free sucrose	NMT 4.0%	JECFA Gas chromatography
Acid value	NMT 5.0	JECFA Titration method
Residue on ignition	NMT 1.5%	JECFA Sulfating ashing method
Arsenic (as As)	NMT 0.1mg/kg	Inductively coupled plasma mass spectrometry



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Lead	NMT 0.1mg/kg	Atomic absorption spectrometry
Cadmium	NMT 0.1mg/kg	Inductively coupled plasma mass spectrometry
Mercury	NMT 0.1mg/kg	Atomic absorption spectrometry
Methyl ethyl ketone	NMT 10mg/kg	JECFA Gas chromatography
Ethyl acetate	NMT 350mg/kg	JECFA Gas chromatography
Methanol	NMT 10mg/kg	JECFA Gas chromatography
Dimethylsulfoxide	NMT 2mg/kg	JECFA Gas chromatography
Isobutanol	NMT 10mg/kg	JECFA Gas chromatography
Moisture	NMT 4.0%	Karl Fischer's Method
Aerobic plate count	NMT 300cfu/g	Japan's Standard Methods of Analysis in Food Safety Regulation
Coliforms	Negative/2g	Japan's Standard Methods of Analysis in Food Safety Regulation
Yeast and mold	Negative/0.1g	Japan's Standard Methods of Analysis in Food Safety Regulation

* * *

Mitsubishi appreciates the Agency's continued review of GRAS Notice 1123. Please let us know if you have any other questions or if you need any additional information.

Cordially yours,

Frederick A. Stearns