A Partnership for Public Health: USDA Branded Food Products Database

Data Synchronization Implementation Guide

Version 8

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1 USDA BRANDED FOOD PRODUCTS DATABASE DATA SYNCHRONIZATION INFORMATION

1.1 Primary Data Synchronization Contact

Primary Data Synchronization Contact
Name: Pamela Pehrsson
Phone: 301.504.0630
Email: usdabfpd@ars.usda.gov

1.2 USDA Branded Food Products Database GLN - Publish To:

Production: 0861583000302

2 STEPS TO BEGIN SYNCING YOUR DATA WITH USDA BRANDED FOOD PRODUCTS DATABASE

1. Have your accurate item data loaded into your home data pool and ensure it is ready for publication
    a. Contact your data pool for any technical assistance you might require to complete this step

2. Review the attribute requirements in Section 3 of this document to ensure you can meet our requirements

3. USDA has an open target market subscription, you do not need to request USDA to create a subscription for your GLN. You can immediately publish all items and attributes directly without delay

4. Publish your items
    a. USDA Branded Food Products Database *will require the following:*
        i. Send complete item file as Initial Load publication type
        ii. USDA Branded Food Products Database *will take data directly in production*
        iii. After supplier sends Initial Load of all active items, going forward will only need to send New items as a New publication type

5. Send ongoing item maintenance notifications through your GDSN Certified Data Pool (e.g., 1WorldSync) to the USDA Branded Food Products Database GLN 0861583000302

3 ATTRIBUTE REQUIREMENTS

Below is a list of attributes for A Partnership for Public Health: USDA Branded Food Products Database.

R = Required
O = Optional
CR = Conditionally Required

NOTICE ON NUTRITION FACTS PANEL REQUIRMENTS:

1. Since there are several allowable formats for the Nutrition Facts Panel (NFP), it is optional for a supplier to leverage the attribute "nutrientFormatTypeCodeReference/code" to indicate the proper format that a product carries. Once the NFP format is indicated, corresponding validation rules will be applied to ensure the nutrients required for that NFP format are provided. For example, if the product carries standard NFP pre-2020 format, you will populate the attribute "nutrientFormatTypeCodeReference/code" as "US_FDA_NFP_PRE_2020_STANDARD" and then must provide one instance of "nutrientTypeCode" as "ENERPF" (Calories from Fat).

2. If it is not required for a product to carry an NFP (e.g. water), please populate "foodBeverageCompositionCode" as "USDA" so the validations for nutrient information will not interfere with the publication of the item.

#	USDA Item Attribute	IM GUI Name	IM XML Name	Minimum Required	Notes
1		Item Type	typeOfItem	R	IM specific attribute. Always populated with value "GDSN"
2		Item Name	gtinName	R	IM specific attribute. One instance must have a qualifier of "en".
3	Information Provider GLN	Information Provider GLN	informationProvider/gln	O	
4	GTIN	Item ID	gtin	R	
5	Target Market	Target Market (VV)	targetMarket	R	
6	Product Type	Trade Item Unit Descriptor (Product Type) (VV)	productType	R	
7	GPC Code	Global Classification	globalClassificationCategory/code	R	
8	Brand Name	Brand Name	brandName	R	
9	Brand GLN	Brand Owner GLN	brandOwnerGLN	R	
10	Brand Owner	Brand Owner Name	brandOwnerName	R	
11	Is it a Base Unit	Base Unit Indicator	isBaseUnit	R	
12	Is it a Consumer Unit	Consumer Unit Indicator	isConsumerUnit	R	
13	Catch/Random Weight	Variable Weight Trade Item	isVariableWeightItem	R	
14	Unit Size	Net Content	netContent	CR	If isConsumerUnit is true, then if individualUnitMin is null or if individualUnitMax is null, then netContent must not be null
15	Unit Size Unit of Measure	Net Content UOM	netContentUOM	CR	If isConsumerUnit is true, then if individualUnitMin is null or if individualUnitMax is null, then netContent must not be null
16	Unit Quantity	Quantity of Next Level Item(s)	totalQuantityOfNextLowerTradeItem	CR	If isBaseUnit is FALSE, then totalQuantityOfNextLowerTradeItem must be not null and must be greater than 0
17	Unit Quantity	Inner Pack	innerPack	O	
18	Name of Next Lower Package Level	Child GTIN	link/gtin	CR	If isBaseUnit= FALSE the Name of Next Lower Package Level must be not null
19	Number of Next Lower Level GTINs	Quantity Of Children	link/quantity	CR	If isBaseUnit= FALSE the Quantity Of Children must be not null and >0
20	Cancel Date	Canceled Date	cancelDate	O	
21	Is Trade Item Orderable	Ordering Unit Indicator	isOrderableUnit	R	
22	Is Trade Item Shipping Unit	Dispatch Unit Indicator	isDispatchUnit	R	

23	Is Trade Item Invoice Unit	Invoice Unit Indicator	isInvoiceUnit	R	
24	Product Code Type	Alternate Item Identification Agency	alternateItemIdentification/agency	O	
25	Product Code	Alternate Item Identification ID	alternateItemIdentification/id	O	If alternateItemIdentification/id is not null, then alternateItemIdentification/agency must not be null
26	GTIN Type	GS1 Trade Item ID Key Code	gs1TradeItemIdentificationKey/code	R	
27	GTIN Type	GS1 Trade Item ID Key Value	gs1TradeItemIdentificationKey/value	R	
28	Manufacturer GLN	Manufacturer GLN	manufacturer/gln	R	
29	Manufacturer Name	Manufacturer Name	manufacturer/name	R	
30	English Product Name Long	Product Description	productDescription	R	One instance must have a qualifier of "en"
31	English Product Name Short	Short Description / POS Desc. 1	shortDescription	R	One instance must have a qualifier of "en"
32	Functional Name	Functional Name	functionalName	R	One instance must have a qualifier of "en"
33	Sub Brand	Sub Brand	subBrand	O	
34	Item Availability Date	Start Availability Date	startAvailabilityDate	R	
35	Vendor Discontinue Date	Discontinued Date	discontinuedDate	O	
36	Length	Depth	depth	R	
37	Length Unit of Measure	Depth UOM	depthUOM	R	
38	Height	Height	height	R	
39	Height Unit of Measure	Height UOM	heightUOM	R	
40	Width	Width	width	R	
41	Width Unit of Measure	Width UOM	widthUOM	R	
42	Net Weight	Net Weight	netWeight	R	
43	Net Weight Unit of Measure	Net Weight UOM	netWeightUOM	R	

44	Drained Weight	Drained Weight	drainedWeight	O	
45	Drained Weight Unit of Measure	Drained Weight UOM	drainedWeightUOM	O	
46	Individual Unit Maximum	Individual Unit Max	individualUnitMax	CR	If isConsumerUnit is true, then if netContent is null and packagingInformation/shippingContainerQuantityDescription is null then either or both individualUnitMin or individualUnitMax must not be null
47	Individual Unit Maximum Unit of Measure	Individual Unit Max UOM	individualUnitMaxUOM	CR	If isConsumerUnit is true, then if netContent is null and packagingInformation/shippingContainerQuantityDescription is null then either or both individualUnitMin or individualUnitMax must not be null
48	Individual Unit Minimum	Individual Unit Min	individualUnitMin	CR	If isConsumerUnit is true, then if netContent is null and packagingInformation/shippingContainerQuantityDescription is null then either or both individualUnitMin or individualUnitMax must not be null
49	Individual Unit Minimum Unit of Measure	Individual Unit Min UOM	individualUnitMinUOM	CR	If isConsumerUnit is true, then if netContent is null and packagingInformation/shippingContainerQuantityDescription is null then either or both individualUnitMin or individualUnitMax must not be null
50	Purchasing Pack Size Description	Shipping Container Quantity Description	packagingInformation/shippingContainerQuantityDescription	CR	If isConsumerUnit is true, then if individualUnitMin is null and if individualUnitMax is null and if netContent is null, then packagingInformation/shippingContainerQuantityDescription must not be null
51	Is packaging marked as Returnable	Packaging Marked Returnable	packagingMarkedReturnable	R	
52	Number of Units / Inner	Quantity of Next Level GTIN within Inner Pack	quantityOfNextLevelWithinInnerPack	CR	If isBaseUnit is FALSE, then quantityOfNextLowerTradeItem must be not null and must be greater than 0
53	Brand Distribution Type	Brand Distribution Trade Item Type	brandDistributionTradeItemType	O	
54	Shelf Life from Production	Min Product Lifespan from Production (Days)	minimumTradeItemLifespanFromProduction	O	
55	Brand Distribution Type	Brand Distribution Type	brandDistributionType	O	
56	Ingredients	Ingredient Statement	ingredientStatement	R	One instance must have a qualifier of "en"
57	Ingredients	Ingredient Name	ingredientName	O	One instance must have a qualifier of "en".
58	Ingredients	Ingredient Sequence	ingredientSequence	CR	Required if ingredientName is provided.

59	Nutrient Relevant Data Provided	Nutrient Relevant Data Provided?	nutrientRelevantDataProvided	O	If nutrientRelevantDataProvided is true, then ignore all validations for attributes in the nutrientInformation group
60	Preparation State	Preparation State	nutrientInformation/preparationStateCode	R	
61	Serving Size	Serving Size	nutrientInformation/servingSize	R	
62	Serving Size Unit of Measure	Serving Size UOM	nutrientInformation/servingSizeUOM	R	
63	Household Serving Size	Serving Size Description	nutrientInformation/servingSizeDescription	R	One instance must have a qualifier of "en"
64	Nutrient Basis Quantity Type Code	Nutrient Basis Quantity Type Code	nutrientInformation/nutrientBasisQuantityTypeCode	R	It is recommended to have at least one instance of the nutrientInformation/nutrientBasisQuantityTypeCode to be BY_MEASURE
65	Nutrient Basis Quantity	Nutrient Basis Quantity	nutrientInformation/nutrientBasisQuantity	R	It is recommended to have one instance of the qualifier for nutrientInformation/nutrientBasisQuantity be either GRM or OZI or OZA or MLT and the number be 100.
66	Nutrient Basis Quantity Unit of Measure	Nutrient Basis Quantity Unit of Measure	nutrientInformation/nutrientBasisQuantityUOM	R	It is recommended to have one instance of the qualifier for nutrientInformation/nutrientBasisQuantity be either GRM or OZI or OZA or MLT and the number be 100.
67		Nutrient Format Type Code Reference Code	nutrientFormatTypeCodeReference/code	O	This attribute is used to indicate different format of Nutrition Facts Panel (NFP). Once populated, specific validations will be applied to ensure required nutrition information is provided per NFP format.
68	USDA Nutrient Database #	Food Composition Code	foodBeverageComposition/foodBeverageCompositionCode	O	If foodBeverageComposition/foodBeverageCompositionCode is not null, then foodBeverageComposition/foodBeverageCompositionDatabaseCode must not be null If foodBeverageComposition/foodBeverageCompositionDatabaseCode is "USDA" and foodBeverageComposition/foodBeverageCompositionCode is not null, then ALL validations against attributes in the nutrientInformatiuon group are to be ignored.
69	USDA Nutrient Database #	Food Composition Agency Name Code	foodBeverageComposition/foodBeverageCompositionDatabaseCode	O	If foodBeverageComposition/foodBeverageCompositionDatabaseCode is "USDA" and foodBeverageComposition/foodBeverageCompositionCode is not null, then ALL validations against attributes in the nutrientInformatiuon group are to be ignored. If foodBeverageComposition/foodBeverageCompositionCode is not null, then foodBeverageComposition/foodBeverageCompositionDatabaseCode must not be null

70	Preparation and Cooking Suggestions	Preparation Instructions	foodAndBevPreparationInfo/preparationInstructions	O	
71	Serving Size Weight in Grams	Serving Size Gram Weight	servingSizeGramWeight	O	
72	Added Sugar	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientDetail/nutrientTypeCode is SUGAD, then nutrientInformation/nutrientDetail/quantityContained must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
73	Caffeine (mg)	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientDetail/nutrientTypeCode is CAFFN, then nutrientInformation/nutrientDetail/quantityContained must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
74	Calcium % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is CA then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of CA for each loop of nutrientInformation
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
75	Calcium (mg)	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of CA for each loop of nutrientInformation

		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is CA then Where nutrientFormatTypeCodeReference/code is US_FDA_NFP_2020_STANDARD, US_FDA_NFP_2020_TABULAR, US_FDA_NFP_2020_STANDARD_VOLUNTARY_ELEMENTS, US_FDA_NFP_2020_STANDARD_SIDE_BY_SIDE, US_FDA_NFP_2020_AGGREGATE, US_FDA_NFP_2020_DUAL_COLUMN, US_FDA_NFP_2020_DUAL_COLUMN_TWO_FORMS, US_FDA_NFP_2020_TABULAR_DUAL_COLUMN, US_FDA_NFP_2020_SIMPLIFIED, US_FDA_NFP_2020_STANDARD_INFANTS_TO_12_MONTHS, US_FDA_NFP_2020_STANDARD_CHILDREN_1_3_YEARS, US_FDA_NFP_2020_TABULAR_SMALL_PACKAGES, US_FDA_NFP_2020_LINEAR_SMALL_PACKAGES, nutrientInformation/nutrientDetail/quantityContained and nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null If nutrientInformation/nutrientBasisQuantityTypeCode is BY_MEASURE and nutrientInformation/nutrientDetail/nutrientTypeCode is CA then nutrientInformation/nutrientDetail/quantityContained and nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
76	Calories (Cal)	Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of ENER- or ENERA or ENERC
		Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	R	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	R	If nutrientInformation/nutrientDetail/nutrientTypeCode is ENER- or ENERA or ENERC, then nutrientInformation/nutrientDetail/quantityContained must not be null
77	Calories from Fat (Cal)	Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	CR	If isConsumerUnit is true, then Required- Where nutrientFormatTypeCodeReference/code is US_FDA_NFP_PRE_2020_AGGREGATE, US_FDA_NFP_PRE_2020_STANDARD, US_FDA_NFP_PRE_2020_TABULAR, US_FDA_NFP_PRE_2020_DUAL_COLUMN, US_FDA_NFP_PRE_2020_LINEAR, then one instance of nutrientInformation/nutrientDetail/nutrientTypeCode must be ENERPF for each loop of nutrientInformation
		Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null

		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientDetail/nutrientTypeCode is ENERPF, then nutrientInformation/nutrientDetail/quantityContained must not be null
78	Carbohydrates	Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of CHO- for each loop of nutrientInformation
		Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	R	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	R	If nutrientInformation/nutrientDetail/nutrientTypeCode is CHO-, then nutrientInformation/nutrientDetail/quantityContained must not be null
79	Carbohydrates % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is CHO-, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of CHO-
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
80	Cholesterol % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is CHOLM or CHOLME or CHOLC or CHOLE or CHOL-, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of CHOLM or CHOLME or CHOLC or CHOLE or CHOL-
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
81	Cholesterol (mg)	Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of CHOLM or CHOLME or CHOLC or CHOLE or CHOL-
		Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	R	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	R	if nutrientInformation/nutrientDetail/nutrientTypeCode is CHOLM or CHOLME or CHOLC or CHOLE or CHOL-, then nutrientInformation/nutrientDetail/quantityContained must not be null

82	Copper % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is CU, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
83	Insoluble Fibre	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientDetail/nutrientTypeCode is FIBINS, then nutrientInformation/nutrientDetail/quantityContained must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
84	Insoluble Fibre % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is FIBINS, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
85	Iodine % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is ID then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	

87	Iron % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is FE3+ or FE2+ or FERAC or HAEM or NHAEM or FE or FEMFP, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of FE3+ or FE2+ or FERAC or HAEM or NHAEM or FE or FEMFP
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
88	Iron (mg)	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is FE3+ or FE2+ or FERAC or HAEM or NHAEM or FE or FEMFP then Where nutrientFormatTypeCodeReference/code is US_FDA_NFP_2020_STANDARD, US_FDA_NFP_2020_TABULAR, US_FDA_NFP_2020_STANDARD_VOLUNTARY_ELEMENTS, US_FDA_NFP_2020_STANDARD_SIDE_BY_SIDE, US_FDA_NFP_2020_AGGREGATE, US_FDA_NFP_2020_DUAL_COLUMN, US_FDA_NFP_2020_DUAL_COLUMN_TWO_FORMS, US_FDA_NFP_2020_TABULAR_DUAL_COLUMN, US_FDA_NFP_2020_SIMPLIFIED, US_FDA_NFP_2020_STANDARD_INFANTS_TO_12_MONTHS, US_FDA_NFP_2020_STANDARD_CHILDREN_1_3_YEARS, US_FDA_NFP_2020_TABULAR_SMALL_PACKAGES, US_FDA_NFP_2020_LINEAR_SMALL_PACKAGES, nutrientInformation/nutrientDetail/quantityContained and nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null If nutrientInformation/nutrientBasisQuantityTypeCode is BY_MEASURE and nutrientInformation/nutrientDetail/nutrientTypeCode is FE3+ or FE2+ or FERAC or HAEM or NHAEM or FE or FEMFP then nutrientInformation/nutrientDetail/quantityContained and nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null

		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of FE3+ or FE2+ or FERAC or HAEM or NHAEM or FE or FEMFP
89	Magnesium % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is MG, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
90	Monounsaturated Fat (g)	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientDetail/nutrientTypeCode is FAMS or FAMSCIS or FAMSF, then nutrientInformation/nutrientDetail/quantityContained
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
91	Niacin % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is NIA or NIAEQ or NIAAVL, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
92	Omega 3 Acids (mg)	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientDetail/nutrientTypeCode is FACN3 or FAN3 or FAPUN3 or FAPUN3F or FAPUN3FI or FAPUN3VE, then nutrientInformation/nutrientDetail/quantityContained must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	

93	Omega 6 Acids (mg)	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientDetail/nutrientTypeCode is FACN6 or FAN6 or FAPUN6 or FAPUN6F, then nutrientInformation/nutrientDetail/quantityContained must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
94	Other Carbohydrates	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientDetail/nutrientTypeCode is CHOAVL or CHOAVLM or CHOAVLDF or CHOAVL-, then (Nutrient Quantity Contained or Percentage of Daily Value Intake) Not null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
95	Other Carbohydrates % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is CHOAVL or CHOAVLM or CHOAVLDF or CHOAVL-, then (Nutrient Quantity Contained or Percentage of Daily Value Intake) Not null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
96	Pantothenic Acid	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientDetail/nutrientTypeCode is PANTAC, then nutrientInformation/nutrientDetail/quantityContained must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
97	Phosphorous % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is P, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null

		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
98	Phosphorous (mg)	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientDetail/nutrientTypeCode is P, then nutrientInformation/nutrientDetail/quantityContained must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
99	Polyunsaturated % RDI USA	Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	O	
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
100	Polyunsaturated Fat (g)	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientDetail/nutrientTypeCode is FAPULC or FAPUCIS or FAPUN3FI or FAPUN3VE or FAPUN6 or FAPU or FAPUF, then nutrientInformation/nutrientDetail/quantityContained must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
101	Potassium % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is K, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null

		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	CR	If isConsumerUnit is true, then Where nutrientFormatTypeCodeReference/code is US_FDA_NFP_2020_STANDARD, US_FDA_NFP_2020_TABULAR, US_FDA_NFP_2020_STANDARD_VOLUNTARY_ELEMENTS, US_FDA_NFP_2020_STANDARD_SIDE_BY_SIDE, US_FDA_NFP_2020_AGGREGATE, US_FDA_NFP_2020_DUAL_COLUMN, US_FDA_NFP_2020_DUAL_COLUMN_TWO_FORMS, US_FDA_NFP_2020_TABULAR_DUAL_COLUMN, US_FDA_NFP_2020_SIMPLIFIED, US_FDA_NFP_2020_STANDARD_INFANTS_TO_12_MONTHS, US_FDA_NFP_2020_STANDARD_CHILDREN_1_3_YEARS, US_FDA_NFP_2020_TABULAR_SMALL_PACKAGES, US_FDA_NFP_2020_LINEAR_SMALL_PACKAGES, then one instance of nutrientInformation/nutrientDetail/nutrientTypeCode must be K
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null

102	Potassium (mg)	Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is K then Where nutrientFormatTypeCodeReference/code is US_FDA_NFP_2020_STANDARD, US_FDA_NFP_2020_TABULAR, US_FDA_NFP_2020_STANDARD_VOLUNTARY_ELEMENTS, US_FDA_NFP_2020_STANDARD_SIDE_BY_SIDE, US_FDA_NFP_2020_AGGREGATE, US_FDA_NFP_2020_DUAL_COLUMN, US_FDA_NFP_2020_DUAL_COLUMN_TWO_FORMS, US_FDA_NFP_2020_TABULAR_DUAL_COLUMN, US_FDA_NFP_2020_SIMPLIFIED, US_FDA_NFP_2020_STANDARD_INFANTS_TO_12_MONTHS, US_FDA_NFP_2020_STANDARD_CHILDREN_1_3_YEARS, US_FDA_NFP_2020_TABULAR_SMALL_PACKAGES, US_FDA_NFP_2020_LINEAR_SMALL_PACKAGES, nutrientInformation/nutrientDetail/quantityContained and nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null If nutrientInformation/nutrientBasisQuantityTypeCode is BY_MEASURE and nutrientInformation/nutrientDetail/nutrientTypeCode is K then nutrientInformation/nutrientDetail/quantityContained and nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null

		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	CR	If isConsumerUnit is true, then Where nutrientFormatTypeCodeReference/code is US_FDA_NFP_2020_STANDARD, US_FDA_NFP_2020_TABULAR, US_FDA_NFP_2020_STANDARD_VOLUNTARY_ELEMENTS, US_FDA_NFP_2020_STANDARD_SIDE_BY_SIDE, US_FDA_NFP_2020_AGGREGATE, US_FDA_NFP_2020_DUAL_COLUMN, US_FDA_NFP_2020_DUAL_COLUMN_TWO_FORMS, US_FDA_NFP_2020_TABULAR_DUAL_COLUMN, US_FDA_NFP_2020_SIMPLIFIED, US_FDA_NFP_2020_STANDARD_INFANTS_TO_12_MONTHS, US_FDA_NFP_2020_STANDARD_CHILDREN_1_3_YEARS, US_FDA_NFP_2020_TABULAR_SMALL_PACKAGES, US_FDA_NFP_2020_LINEAR_SMALL_PACKAGES, then one instance of nutrientInformation/nutrientDetail/nutrientTypeCode must be K for each loop of nutrientInformation
		Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
103	Riboflavin % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is RIBF, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
104	RiboflavinB2 (mg)	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	O	
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
105	Saturated Fat % RDI USA	Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	

		Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is FASAT or FASATF, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
106	Saturated Fat (g)	Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientDetail/nutrientTypeCode is FASAT or FASATF, then nutrientInformation/nutrientDetail/quantityContained must not be null
		Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
107	Sodium % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	R	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is NA, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of NA for each loop of nutrientInformation
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	R	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
108	Sodium (mg)	Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of NA for each loop of nutrientInformation
		Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	R	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null

		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	R	If nutrientInformation/nutrientDetail/nutrientTypeCode is NA, then nutrientInformation/nutrientDetail/quantityContained must not be null
109	Soluble Fiber % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is FIBSOL, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
110	Thiamin % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is THIA, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
111	Total Dietary Fiber % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	R	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is FIBTSW or FIBTS or FIBTG or FIB-, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of FIBTSW or FIBTS or FIBTG or FIB- for each loop of nutrientInformation
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	R	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null

112	Total Dietary Fiber (g)	Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of FIBTSW or FIBTS or FIBTG or FIB- for each loop of nutrientInformation for each loop of nutrientInformation
		Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	R	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	R	If nutrientInformation/nutrientDetail/nutrientTypeCode is FIBTSW or FIBTS or FIBTG, then nutrientInformation/nutrientDetail/quantityContained must not be null
113	Total Fat % RDI USA	Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of FATAN or FATCPL or FAT or FATCE or FAT- or F4D0 or FACID or FATNLEA for each loop of nutrientInformation
		Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	R	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is FATAN or FATCPL or FAT or FATCE or FAT- or F4D0 or FACID or FATNLEA, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	R	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
114	Total Fat (g)	Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of FATAN or FATCPL or FAT or FATCE or FAT- or F4D0 or FACID or FATNLEA for each loop of nutrientInformation
		Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	R	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	R	If nutrientInformation/nutrientDetail/nutrientTypeCode is FATAN or FATCPL or FAT or FATCE or FAT- or F4D0 or FACID or FATNLEA, then nutrientInformation/nutrientDetail/quantityContained must not be null
115	Total Folate % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is FOLFD or FOL- or FOLC or FOLDFE or FOLFRE or FOL, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null

		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
116	Total Sugar (g)	Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	R	If isConsumerUnit is true, then There must exist one instance of nutrientInformation/nutrientDetail/nutrientTypeCode with a value of SUGAN or SUGNRD or SUGRD or SUGAR- or SUGAR or SUGARM for each loop of nutrientInformation
		Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	R	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	R	If nutrientInformation/nutrientDetail/nutrientTypeCode is SUGAN or SUGNRD or SUGRD or SUGAR- or SUGAR or SUGARM, then nutrientInformation/nutrientDetail/quantityContained must not be null
117	Transfatty Acids (g)	Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
		Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientDetail/nutrientTypeCode is FADT or FATRN or FATRNF or FATRNM or FATRNP, then nutrientInformation/nutrientDetail/quantityContained must not be null
118	Vitamin A (IU)	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null

		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_MEASURE and nutrientInformation/nutrientDetail/nutrientTypeCode is VITA or VITA- or VITAA or VITAACT or VITAAPAL then nutrientInformation/nutrientDetail/quantityContained and nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	CR	If isConsumerUnit is true, then Required- Where nutrientFormatTypeCodeReference/code is US_FDA_NFP_PRE_2020_AGGREGATE, US_FDA_NFP_PRE_2020_STANDARD, US_FDA_NFP_PRE_2020_TABULAR, US_FDA_NFP_PRE_2020_DUAL_COLUMN, US_FDA_NFP_PRE_2020_LINEAR, then one instance of nutrientInformation/nutrientDetail/nutrientTypeCode must be VITA or VITA- or VITAA or VITAACT or VITAAPAL for each loop of nutrientInformation
119	Vitamin A IU % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is VITA- or VITAA or VITA or VITAACT or VITAPAL, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	CR	If isConsumerUnit is true, then Required- Where nutrientFormatTypeCodeReference/code is US_FDA_NFP_PRE_2020_AGGREGATE, US_FDA_NFP_PRE_2020_STANDARD, US_FDA_NFP_PRE_2020_TABULAR, US_FDA_NFP_PRE_2020_DUAL_COLUMN, US_FDA_NFP_PRE_2020_LINEAR, then one instance of nutrientInformation/nutrientDetail/nutrientTypeCode must be VITA or VITA- or VITAA or VITAACT or VITAAPAL for each loop of nutrientInformation
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null

120	Vitamin B12 % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is VITB12, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
121	Vitamin B6 % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is VITB6-, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
122	Vitamin C % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is VITC- or VITC, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	CR	If isConsumerUnit is true, then Required- Where nutrientFormatTypeCodeReference/code is US_FDA_NFP_PRE_2020_AGGREGATE, US_FDA_NFP_PRE_2020_STANDARD, US_FDA_NFP_PRE_2020_TABULAR, US_FDA_NFP_PRE_2020_DUAL_COLUMN, US_FDA_NFP_PRE_2020_LINEAR, then one instance of nutrientInformation/nutrientDetail/nutrientTypeCode must be VITC or VITC- for each loop of nutrientInformation

		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
123	Vitamin C (mg)	Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_MEASURE and nutrientInformation/nutrientDetail/nutrientTypeCode is VITA or VITA- or VITAA or VITAACT or VITAAPAL then nutrientInformation/nutrientDetail/quantityContained and nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	CR	If isConsumerUnit is true, then Required- Where nutrientFormatTypeCodeReference/code is US_FDA_NFP_PRE_2020_AGGREGATE, US_FDA_NFP_PRE_2020_STANDARD, US_FDA_NFP_PRE_2020_TABULAR, US_FDA_NFP_PRE_2020_DUAL_COLUMN, US_FDA_NFP_PRE_2020_LINEAR, then one instance of nutrientInformation/nutrientDetail/nutrientTypeCode must be VITC or VITC- for each loop of nutrientInformation
124	Vitamin D % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is VITD or VITD- or VITDA or VITDEQ, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null

		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	CR	If isConsumerUnit is true, then Required- Where nutrientFormatTypeCodeReference/code is US_FDA_NFP_2020_STANDARD, US_FDA_NFP_2020_TABULAR, US_FDA_NFP_2020_STANDARD_VOLUNTARY_ELEMENTS, US_FDA_NFP_2020_STANDARD_SIDE_BY_SIDE, US_FDA_NFP_2020_AGGREGATE, US_FDA_NFP_2020_DUAL_COLUMN, US_FDA_NFP_2020_DUAL_COLUMN_TWO_FORMS, US_FDA_NFP_2020_TABULAR_DUAL_COLUMN, US_FDA_NFP_2020_SIMPLIFIED, US_FDA_NFP_2020_STANDARD_INFANTS_TO_12_MONTHS, US_FDA_NFP_2020_STANDARD_CHILDREN_1_3_YEARS, US_FDA_NFP_2020_TABULAR_SMALL_PACKAGES, US_FDA_NFP_2020_LINEAR_SMALL_PACKAGES, then one instance of nutrientInformation/nutrientDetail/nutrientTypeCode must be VITD or VITD- or VITDA for each loop of nutrientInformation
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null

125	Vitamin D (mcg)	Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is VITD or VITD- or VITDA then Where nutrientFormatTypeCodeReference/code is US_FDA_NFP_2020_STANDARD, US_FDA_NFP_2020_TABULAR, US_FDA_NFP_2020_STANDARD_VOLUNTARY_ELEMENTS, US_FDA_NFP_2020_STANDARD_SIDE_BY_SIDE, US_FDA_NFP_2020_AGGREGATE, US_FDA_NFP_2020_DUAL_COLUMN, US_FDA_NFP_2020_DUAL_COLUMN_TWO_FORMS, US_FDA_NFP_2020_TABULAR_DUAL_COLUMN, US_FDA_NFP_2020_SIMPLIFIED, US_FDA_NFP_2020_STANDARD_INFANTS_TO_12_MONTHS, US_FDA_NFP_2020_STANDARD_CHILDREN_1_3_YEARS, US_FDA_NFP_2020_TABULAR_SMALL_PACKAGES, US_FDA_NFP_2020_LINEAR_SMALL_PACKAGES, nutrientInformation/nutrientDetail/quantityContained and nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null If nutrientInformation/nutrientBasisQuantityTypeCode is BY_MEASURE and nutrientInformation/nutrientDetail/nutrientTypeCode is VITD or VITD- or VITDA then nutrientInformation/nutrientDetail/quantityContained and nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	CR	If isConsumerUnit is true, then Required- Where nutrientFormatTypeCodeReference/code is US_FDA_NFP_2020_STANDARD, US_FDA_NFP_2020_TABULAR, US_FDA_NFP_2020_STANDARD_VOLUNTARY_ELEMENTS, US_FDA_NFP_2020_STANDARD_SIDE_BY_SIDE, US_FDA_NFP_2020_AGGREGATE, US_FDA_NFP_2020_DUAL_COLUMN, US_FDA_NFP_2020_DUAL_COLUMN_TWO_FORMS, US_FDA_NFP_2020_TABULAR_DUAL_COLUMN, US_FDA_NFP_2020_SIMPLIFIED, US_FDA_NFP_2020_STANDARD_INFANTS_TO_12_MONTHS, US_FDA_NFP_2020_STANDARD_CHILDREN_1_3_YEARS, US_FDA_NFP_2020_TABULAR_SMALL_PACKAGES, US_FDA_NFP_2020_LINEAR_SMALL_PACKAGES, then one instance of nutrientInformation/nutrientDetail/nutrientTypeCode must be VITD or VITD- or VITDA for each loop of nutrientInformation

126	Vitamin E % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is VITE or VITE- or VITEA, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
125	Vitamin K % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is VITK, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
126	Zinc % RDI USA	Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	CR	If nutrientInformation/nutrientBasisQuantityTypeCode is BY_SERVING and nutrientInformation/nutrientDetail/nutrientTypeCode is ZN, then nutrientInformation/nutrientDetail/dailyValueIntakePercent must not be null
		Daily Value Intake Percent Measurement Precision Code	nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/dailyValueIntakePercent is not null, then nutrientInformation/nutrientDetail/dailyValueIntakePercentMeasurementPrecisionCode must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
127	Zinc (mg)	Measurement Precision	nutrientInformation/nutrientDetail/measurementPrecisionCode	CR	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null

		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	If nutrientInformation/nutrientDetail/nutrientTypeCode is ZN, then nutrientInformation/nutrientDetail/quantityContained must not be null
		Nutrient Type Code	nutrientInformation/nutrientDetail/nutrientTypeCode	O	
128	Trade Channel	Trade Channel	tradeChannel	O	Trade channel where food products are marketed and sold to K-12 schools, day care centers, and preschools, including, but not exclusive, to those intended for a specific child nutrition program, such as the USDA Foods in Schools, CN Labeling Program, National School Lunch Program, School Breakfast Program, Summer Food Service Program, Special Milk Program, and Child and Adult Care Food Program, then Trade Channel (tradeChannel) should be Child Nutrition Food Programs (CHILD_NUTRITION_FOOD_PROGRAMS).
129	Live Microbes	Food and Bev Microbiological	foodAndBevMicrobiological	O	foodAndBevMicrobiological
		Organism Code	foodAndBevMicrobiological/organismCode	CR	Code indicating the type of microbiological organism. Select one or more microbiological organisms that are present in the product. This information is highly encouraged but not required.
		Organism Maximum Value	foodAndBevMicrobiological/organismMaximumValue	CR	Maximum concentration of live microbes in the item. Specific values are encouraged; otherwise, please indicate one of the following thresholds: Item has low live microbes content:10^4 CFU/g Item has medium live microbes content: 10^7 CFU/g Item has high live microbes content: leave blank
		Organism Minimum Value	foodAndBevMicrobiological/organismMinimumValue	CR	Minimum concentration of live microbes in the item. Specific values are encouraged; otherwise, please indicate one of the following thresholds: Item has low live microbes content: leave blank Item has medium live microbes content: 10^4 CFU/g Item has high live microbes content: 10^7 CFU/g
		Microbiological Organism Method of Analysis Code	foodAndBevMicrobiological/microbiologicalOrganismMethodOfAnalysisCode	CR	Method of analysis used to determine quantity of the specified microbiological organism(s) in the product. Indicate Aerobic plate count, Flow cytometry, or Other.

REVISION HISTORY

Date	Version #	Description of Change	Author
04/23/2016	1	Initial document	M. Crown
05/12/2016	2	Attribute updated	M. Crown
07/25/2016	3	GDSN attributes updated	M. Crown
10/04/2017	4	Steps to Sync updated	A. Hussain
10/10/2017	5	Data Validation Rules added	P. Patel
10/08/2019	6	Attribute Requirements updated	F. Shen
03/26/2019	7	Updated conditions on nutrientBasisQuantityTypeCode, nutrientBasisQuantity & nutrientBasisQuantityUOM	F. Shen
9/8/2021	8	Updated Requirements on: Product Code Product Code Type Information Provider GLN Trade Channel Live Microbes	B. Curran