



# **USDA Food and Nutrition Service (FNS)**

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## **Data Synchronization Implementation Guide**

Version 2

# Data Synchronization Implementation Guide

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### NOTE TO BROKERS:

If you as a broker (non-manufacturer) are the vendor of record, you are responsible for ensuring required product information is published to the USDA Food and Nutrition Service (FNS) via the GDSN. To meet this requirement, you may choose from the following options:

1. Enter and publish product information via the GDSN on behalf of your supplier(s) / brand owner(s)
2. Have your supplier(s) / brand owner(s) enter and publish their product information via the GDSN on your behalf

### Key Definitions

**Brand Owner:** The brand owner of the product. The organization that is responsible for allocating the GTIN to the product.

**Vendor/Vendor of Record:** The vendor is the contractual entity that provides products as part of a contract with USDA (may or may not be a manufacturer/brand owner).

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## **1 USDA FNS 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 FNS GLN - Publish To:**

Production: 0861583000319

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## 2 STEPS TO BEGIN SYNCING YOUR DATA WITH USDA FNS

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 attribute requirements in Section 3 of this document to ensure you can meet our requirements
3. USDA FNS has an open target market subscription, you do not need to request USDA FNS to create a subscription for your GLN. You can immediately publish all items and attributes directly without delay
4. Publish your items
  - a. *USDA FNS will require the following:*
    - i. *Send complete item file as Initial Load publication type*
    - ii. *USDA FNS will take data directly in production*
    - iii. *After supplier sends Initial Load of all active items, going forward, supplier 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 FNS GLN: 0861583000319

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## 3 ATTRIBUTE REQUIREMENTS

Below is a list of attributes for USDA FNS. All listed attributes are not required. Reference the column titled "Minimum Required" for the following identifiers:

R = Required

O = Optional

CR = Conditionally Required

### NOTICE ON NUTRITION FACTS PANEL REQUIREMENTS:

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.

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#	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	informationProviderGLN	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	

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23	Is Trade Item Invoice Unit	Invoice Unit Indicator	isInvoiceUnit	R	
24	Product Code Type	Alternate Item Identification Agency	alternateItemIdentification/agency	O	If isConsumerUnit is true, then There must be one iteration of alternateItemIdentification/agency populated with "90"
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	

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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	O	
52	Number of Units / Inner	Quantity of Next Level GTIN within Inner Pack	quantityOfNextLevelWithinInnerPack	O	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



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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 Nutrion Facts Panel (NFP). Once populated, specific validations would be trigger to ensure required nutrition information is provided per NFP format.
68	USDA Nutrient Database #	Food Composition Code	foodBeverageComposition/foodBeverageCompositionCode	O	<p>If foodBeverageComposition/foodBeverageCompositionCode is not null, then foodBeverageComposition/foodBeverageCompositionDatabaseCode must not be null</p> <p>If foodBeverageComposition/foodBeverageCompositionDatabaseCode is "USDA" and foodBeverageComposition/foodBeverageCompositionCode is not null, then ALL validations against attributes in the nutrientInformatioun group are to be ignored.</p>
69	USDA Nutrient Database #	Food Composition Agency Name Code	foodBeverageComposition/foodBeverageCompositionDatabaseCode	O	<p>If foodBeverageComposition/foodBeverageCompositionDatabaseCode is "USDA" and foodBeverageComposition/foodBeverageCompositionCode is not null, then ALL validations against attributes in the nutrientInformatioun group are to be ignored.</p> <p>If foodBeverageComposition/foodBeverageCompositionCode is not null, then foodBeverageComposition/foodBeverageCompositionDatabaseCode must not be null</p>
70	Preparation and Cooking Suggestions	Preparation Instructions	foodAndBevPreparationInfo/preparationInstructions	O	

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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

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		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	<p>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</p> <p>If nutrientInformation/nutrientBasisQuantityTypeCode is BY_MEASURE and nutrientInformation/nutrientDetail/nutrientTypeCode is CA then nutrientInformation/nutrientDetail/quantityContained and nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null</p>
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	O	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	O	If nutrientInformation/nutrientDetail/quantityContained is not null, then nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null

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		Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	O	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

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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	

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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	<p>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</p> <p>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</p>

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		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	

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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



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					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	

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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

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102	Potassium (mg)	Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	<p>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</p> <p>If nutrientInformation/nutrientBasisQuantityTypeCode is BY_MEASURE and nutrientInformation/nutrientDetail/nutrientTypeCode is K then nutrientInformation/nutrientDetail/quantityContained and nutrientInformation/nutrientDetail/measurementPrecisionCode must not be null</p>
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		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	

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		Percentage of Daily Value Intake	nutrientInformation/nutrientDetail/dailyValueIntakePercent	O	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	O	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	O	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

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		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

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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

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		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



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		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

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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

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		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

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		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

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125	Vitamin D (mcg)	Nutrient Quantity Contained	nutrientInformation/nutrientDetail/quantityContained	CR	<p>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</p> <p>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</p>
		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

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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

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		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	FNS Material Number	FNS Material Number	fnsMaterialNumber	R	
129	Allergen Type Code	Allergen Type Code	allergenRelatedInformation/allergen/allergenTypeCode	CR	
130	Level Of Containment	Level Of Containment	allergenRelatedInformation/allergen/levelOfContainmentCode	O	
131	Allergen Specification Agency	Allergen Specification Agency	allergenRelatedInformation/allergenSpecificationAgency	O	
132	Allergen Specification Name	Allergen Specification Name	allergenRelatedInformation/allergenSpecificationName	O	
133	Allergen Statement	Allergen Statement	allergenRelatedInformation/allergenStatement	O	
134	Allergen Relevant Data Provided?	Allergen Relevant Data Provided?	allergenRelatedInformation/isAllergenRelevantDataProvided	O	
135	Child Nutrition Expiration DateTime	Child Nutrition Expiration DateTime	childNutritionLabel/childNutritionExpirationDateTime	O	
136	Alternate Text	Alternate Text	childNutritionLabel/childNutritionLabelDocument/alternateText	O	
137	Content Description	Content Description	childNutritionLabel/childNutritionLabelDocument/contentDescription	O	
138	File Creation Program	File Creation Program	childNutritionLabel/childNutritionLabelDocument/fileCreationProgram	O	
139	File Effective End Date	File Effective End Date	childNutritionLabel/childNutritionLabelDocument/fileEffectiveEndDateTime	CR	If childNutritionLabel/childNutritionLabelDocument/fileEffectiveEndDateTime and childNutritionLabel/childNutritionLabelDocument/fileEffectiveStartDate are both not null, then File Effective End Date (childNutritionLabel/childNutritionLabelDocument/fileEffectiveEndDateTime) must be later than or equal to File Effective Start Date (childNutritionLabel/childNutritionLabelDocument/fileEffectiveStartDate).

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140	File Effective Start Date	File Effective Start Date	childNutritionLabel/childNutritionLabelDocument/fileEffectiveStartDateTime	CR	If childNutritionLabel/childNutritionLabelDocument/fileEffectiveStartDateTime and childNutritionLabel/childNutritionLabelDocument/fileEffectiveEndDateTime are both not null, then File Effective Start Date (childNutritionLabel/childNutritionLabelDocument/fileEffectiveStartDateTime) must be earlier than or equal to File Effective End Date (childNutritionLabel/childNutritionLabelDocument/fileEffectiveEndDateTime).
141	File Format Description	File Format Description	childNutritionLabel/childNutritionLabelDocument/fileFormatDescription	O	
142	File Format Name	File Format Name	childNutritionLabel/childNutritionLabelDocument/fileFormatName	O	
143	File Language	File Language	childNutritionLabel/childNutritionLabelDocument/fileLanguageCode	O	
144	File Name	File Name	childNutritionLabel/childNutritionLabelDocument/fileName	O	
145	File Optimal Viewer Name	File Optimal Viewer Name	childNutritionLabel/childNutritionLabelDocument/fileOptimalViewerName	O	
146	File Origin Country	File Origin Country	childNutritionLabel/childNutritionLabelDocument/fileOriginCountryCode	O	
147	File Sequence Number	File Sequence Number	childNutritionLabel/childNutritionLabelDocument/fileSequenceNumber	O	
148	File Version	File Version	childNutritionLabel/childNutritionLabelDocument/fileVersion	O	
149	Is Primary File	Is Primary File	childNutritionLabel/childNutritionLabelDocument/isPrimaryFile	O	
150	Referenced File Type Code	Referenced File Type Code	childNutritionLabel/childNutritionLabelDocument/referencedFileTypeCode	CR	If childNutritionLabel/childNutritionLabelDocument/uniformResourceIdentifier is not null, then Referenced File Type Code (childNutritionLabel/childNutritionLabelDocument/referencedFileTypeCode) must not be null.
151	Title Text	Title Text	childNutritionLabel/childNutritionLabelDocument/titleText	O	
152	Uniform Resource Identifier	Uniform Resource Identifier	childNutritionLabel/childNutritionLabelDocument/uniformResourceIdentifier	CR	If childNutritionLabel/childNutritionLabelDocument/referencedFileTypeCode is not null, then Uniform Resource Identifier (childNutritionLabel/childNutritionLabelDocument/uniformResourceIdentifier) must not be null.
153	Child Nutrition Label Statement	Child Nutrition Label Statement	childNutritionLabel/childNutritionLabelStatement	CR	If any attributes in the childNutritionLabel group are populated, then childNutritionLabel/childNutritionLabelStatement must not be null.



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154	Child Nutrition Product Identification	Child Nutrition Product Identification	childNutritionLabel/childNutritionProductIdentification	CR	If any attributes in the childNutritionLabel group are populated, then childNutritionLabel/childNutritionProductIdentification must not be null.
155	Child Nutrition Qualified Value	Child Nutrition Qualified Value	childNutritionLabel/childNutritionQualifier/childNutritionQualifiedValue	CR	If any attributes in the childNutritionLabel group are populated, then childNutritionLabel/childNutritionQualifier/childNutritionQualifiedValue must not be null. If childNutritionLabel/childNutritionQualifier/childNutritionQualifiedValue is not null, then one value must have a qualifier of GRM (Gram).
156	Child Nutrition Qualifier Code	Child Nutrition Qualifier Code	childNutritionLabel/childNutritionQualifier/childNutritionQualifierCode	CR	If any attributes in the childNutritionLabel group are populated, then childNutritionLabel/childNutritionQualifier/childNutritionQualifierCode must not be null.
157	Child Nutrition Value	Child Nutrition Value	childNutritionLabel/childNutritionQualifier/childNutritionValue	CR	If any attributes in the childNutritionLabel group are populated, then childNutritionLabel/childNutritionQualifier/childNutritionValue must not be null.
158	Data Carrier Type Code	Data Carrier Type Code	dataCarrier/dataCarrierTypeCode	CR	
159	FNS Material Description	FNS Material Description	fnsMaterialDescription	O	
160	Kosher, Vegan, Vegetarian, Halal	Diet Type Code	foodAndBevDietTypeInfo/dietTypeCode	O	
161	Kosher, Vegan, Vegetarian, Halal	Diet Type Subcode	foodAndBevDietTypeInfo/dietTypeSubcode	O	
162	Preparation Type	Preparation Type	foodAndBevPreparationInfo/preparationType	O	
163	Gross Weight	Gross Weight	grossWeight	R	
164	Packaging Type Code	Packaging Type Code	packagingInformation/packagingTypeCode	CR	Either packagingInformation/packagingTypeCode or packagingInformation/platformTypeCode must not be null if any attributes in the packagIngInformation group are not null.
165	Platform Type Code	Platform Type Code	packagingInformation/platformTypeCode	CR	Either packagingInformation/packagingTypeCode or packagingInformation/platformTypeCode must not be null if any attributes in the packagIngInformation group are not null.
166	Contained Alternative Protein Percent	Contained Alternative Protein Percent	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableAlternativeProtein/containedAlternativeProteinPercent	CR	If productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableAlternativeProtein/containedAlternativeProteinPercent is not null, then Contained Alternative Protein Percent (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableAlternativeProtein/containedAlternativeProteinPercent) must not be null.

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167	creditableAlternativeProteinPerPortion	creditableAlternativeProteinPerPortion	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableAlternativeProtein/creditableAlternativeProteinPerPortion	CR	If productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableAlternativeProtein/containedAlternativeProteinPercent is not null, then creditableAlternativeProteinPerPortion (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableAlternativeProtein/creditableAlternativeProteinPerPortion) must not be null.
168	Creditable Amount	Creditable Amount	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableAmount	CR	If any attributes in the productFormulationStatement/creditableIngredient/creditableIngredientDetails group are populated, then Creditable Amount (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableAmount) must not be null.
169	Creditable Grain Group Code	Creditable Grain Group Code	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/creditableGrain/creditableGrainGroupCode	CR	If productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/creditableGrain/exhibitGroup is not null, then Creditable Grain Group Code (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/creditableGrain/creditableGrainGroupCode) must not be null.
170	Exhibit Group	Exhibit Group	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/creditableGrain/exhibitGroup	CR	If productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/creditableGrain/creditableGrainGroupCode is not null, then Exhibit Group (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/creditableGrain/exhibitGroup) must not be null.
171	Creditable Grain Amount Per Portion	Creditable Grain Amount Per Portion	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/creditableGrainAmountPerPortion	CR	If any attributes in the productFormulationStatement/creditableIngredient/creditableIngredientDetails group are populated and productFormulationStatement/creditableIngredient/creditableIngredientTypeCode is GRAIN_OR_GRAIN_ALTERNATIVE, then Creditable Grain Amount Per Portion (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/creditableGrainAmountPerPortion) must not be null.
172	Creditable Grain Standard	Creditable Grain Standard	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/creditableGrainStandard	CR	If any attributes in the productFormulationStatement/creditableIngredient/creditableIngredientDetails group are populated and productFormulationStatement/creditableIngredient/creditableIngredientTypeCode is GRAIN_OR_GRAIN_ALTERNATIVE, then Creditable Grain Standard (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/creditableGrainStandard) must not be null.

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173	Does Trade Item Contain Noncreditable Grains	Does Trade Item Contain Noncreditable Grains	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/doesTradeItemContainNoncreditableGrains	CR	If any attributes in the productFormulationStatement/creditableIngredient/creditableIngredientDetails group are populated and productFormulationStatement/creditableIngredient/creditableIngredientTypeCode is GRAIN_OR_GRAIN_ALTERNATIVE, then Creditable Grain Standard (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/creditableGrainStandard) must not be null.
174	Does Trade Item Meet Whole Grain Rich Criteria	Does Trade Item Meet Whole Grain Rich Criteria	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/doesTradeItemMeetWholeGrainRichCriteria	CR	If any attributes in the productFormulationStatement/creditableIngredient/creditableIngredientDetails group are populated and productFormulationStatement/creditableIngredient/creditableIngredientTypeCode is GRAIN_OR_GRAIN_ALTERNATIVE, then Creditable Grain Standard (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/creditableGrainStandard) must not be null.
175	Does Trade Item Meet Whole Grain Rich Criteria	Does Trade Item Meet Whole Grain Rich Criteria	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/doesTradeItemMeetWholeGrainRichCriteria	CR	If any attributes in the productFormulationStatement/creditableIngredient/creditableIngredientDetails group are populated and productFormulationStatement/creditableIngredient/creditableIngredientTypeCode is GRAIN_OR_GRAIN_ALTERNATIVE, then Creditable Grain Standard (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/creditableGrainStandard) must not be null.
176	Non Creditable Grain Amount	Non Creditable Grain Amount	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/noncreditableGrain/noncreditableGrainAmount	CR	If productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/noncreditableGrain/noncreditableGrainDescription is not null, then Non Creditable Grain Amount (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/noncreditableGrain/noncreditableGrainAmount) must not be null.
177	Non Creditable Grain Description	Non Creditable Grain Description	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/noncreditableGrain/noncreditableGrainDescription	CR	If productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/noncreditableGrain/noncreditableGrainAmount is not null, then Non Creditable Grain Description (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableGrainsInformation/noncreditableGrain/noncreditableGrainDescription) must not be null.
178	Creditable Ingredient Amount Per Raw Portion	Creditable Ingredient Amount Per Raw Portion	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableIngredientAmountPerRawPortion	O	

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179	Creditable Ingredient Description	Creditable Ingredient Description	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableIngredientDescription	CR	If any attributes in the productFormulationStatement/creditableIngredient/creditableIngredientDetails group are populated, then Creditable Ingredient Description (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableIngredientDescription) must not be null.
180	Total Vegetable Subgroup Amount	Total Vegetable Subgroup Amount	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableVegetable/totalVegetableSubgroupAmount	CR	If productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableVegetable/vegetableSubgroupCode is not null, then Total Vegetable Subgroup Amount (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableVegetable/totalVegetableSubgroupAmount) must not be null.
181	Vegetable Subgroup Code	Vegetable Subgroup Code	productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableVegetable/vegetableSubgroupCode	CR	If productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableVegetable/totalVegetableSubgroupAmount is not null, then Vegetable Subgroup Code (productFormulationStatement/creditableIngredient/creditableIngredientDetails/creditableVegetable/vegetableSubgroupCode) must not be null.
182	Yield Servings Per Unit	Yield Servings Per Unit	productFormulationStatement/creditableIngredient/creditableIngredientDetails/yieldServingsPerUnit	O	
183	Creditable Ingredient Type Code	Creditable Ingredient Type Code	productFormulationStatement/creditableIngredient/creditableIngredientTypeCode	CR	If any attributes in the productFormulationStatement group are populated, then Creditable Ingredient Type Code (productFormulationStatement/creditableIngredient/creditableIngredientTypeCode) must not be null.
184	Total Creditable Ingredient Type Amount	Total Creditable Ingredient Type Amount	productFormulationStatement/creditableIngredient/totalCreditableIngredientTypeAmount	CR	If any attributes in the productFormulationStatement group are populated, then Total Portion Weight As Purchased (productFormulationStatement/totalPortionWeightAsPurchased) must not be null.
185	Product Formulation Statement Description	Product Formulation Statement Description	productFormulationStatement/productFormulationStatementDescription	CR	If any attributes in the productFormulationStatement group are populated, then Product Formulation Statement Description (productFormulationStatement/productFormulationStatementDescription) must not be null.
186	Alternate Text	Alternate Text	productFormulationStatement/productFormulationStatementDocument/alternateText	O	
187	Content Description	Content Description	productFormulationStatement/productFormulationStatementDocument/contentDescription	O	
188	File Creation Program	File Creation Program	productFormulationStatement/productFormulationStatementDocument/fileCreationProgram	O	

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189	File Effective End Date	File Effective End Date	productFormulationStatement/productFormulationStatementDocument/fileEffectiveEndTime	CR	If productFormulationStatement/productFormulationStatementDocument/fileEffectiveEndTime and productFormulationStatement/productFormulationStatementDocument/fileEffectiveStartTime are both not null, then File Effective End Date (productFormulationStatement/productFormulationStatementDocument/fileEffectiveEndTime) must be later than or equal to File Effective Start Date (productFormulationStatement/productFormulationStatementDocument/fileEffectiveStartTime).
190	File Effective Start Date	File Effective Start Date	productFormulationStatement/productFormulationStatementDocument/fileEffectiveStartTime	CR	If productFormulationStatement/productFormulationStatementDocument/fileEffectiveStartTime and productFormulationStatement/productFormulationStatementDocument/fileEffectiveEndTime are both not null, then File Effective Start Date (productFormulationStatement/productFormulationStatementDocument/fileEffectiveStartTime) must be earlier than or equal to File Effective End Date (productFormulationStatement/productFormulationStatementDocument/fileEffectiveEndTime).
191	File Format Description	File Format Description	productFormulationStatement/productFormulationStatementDocument/fileFormatDescription	O	
192	File Format Name	File Format Name	productFormulationStatement/productFormulationStatementDocument/fileFormatName	O	
193	File Language	File Language	productFormulationStatement/productFormulationStatementDocument/fileLanguageCode	O	
194	File Name	File Name	productFormulationStatement/productFormulationStatementDocument/fileName	O	
195	File Optimal Viewer Name	File Optimal Viewer Name	productFormulationStatement/productFormulationStatementDocument/fileOptimalViewerName	O	
196	File Origin Country	File Origin Country	productFormulationStatement/productFormulationStatementDocument/fileOriginCountryCode	O	
197	File Sequence Number	File Sequence Number	productFormulationStatement/productFormulationStatementDocument/fileSequenceNumber	O	

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198	File Version	File Version	productFormulationStatement/productFormulationStatementDocument/fileVersion	O	
199	Is Primary File	Is Primary File	productFormulationStatement/productFormulationStatementDocument/isPrimaryFile	O	
200	Referenced File Type Code	Referenced File Type Code	productFormulationStatement/productFormulationStatementDocument/referencedFileTypeCode	CR	If productFormulationStatement/productFormulationStatementDocument/uniformResourceIdentifier is not null, then Referenced File Type Code (productFormulationStatement/productFormulationStatementDocument/referencedFileTypeCode) must not be null.
201	Title Text	Title Text	productFormulationStatement/productFormulationStatementDocument/titleText	O	
202	Uniform Resource Identifier	Uniform Resource Identifier	productFormulationStatement/productFormulationStatementDocument/uniformResourceIdentifier	CR	If productFormulationStatement/productFormulationStatementDocument/referencedFileTypeCode is not null, then Uniform Resource Identifier (productFormulationStatement/productFormulationStatementDocument/uniformResourceIdentifier) must not be null.
203	Regulatory Body Code	Regulatory Body Code	productFormulationStatement/productFormulationStatementRegulatoryBodyCode	CR	If any attributes in the productFormulationStatement group are populated, then Regulatory Body Code (productFormulationStatement/productFormulationStatementRegulatoryBodyCode) must not be null.
204	Total Portion Weight As Purchased	Total Portion Weight As Purchased	productFormulationStatement/totalPortionWeightAsPurchased	CR	If any attributes in the productFormulationStatement group are populated, then Total Creditable Ingredient Type Amount (productFormulationStatement/creditableIngredient/totalCreditableIngredientTypeAmount) must not be null. If productFormulationStatement/creditableIngredient/totalCreditableIngredientTypeAmount is not null, then one instance of Total Portion Weight As Purchased (productFormulationStatement/creditableIngredient/totalCreditableIngredientTypeAmount) must have a qualifier of Gram (GRM).
205	Trade Channel	Trade Channel	tradeChannel	CR	If one instance of Trade Channel (tradeChannel) is not Child Nutrition Food Programs (CHILD_NUTRITION_FOOD_PROGRAMS), then WARNING: One instance of Trade Channel (tradeChannel) should be Child Nutrition Food Programs (CHILD_NUTRITION_FOOD_PROGRAMS). Note: This attribute value was previously known as Child Nutrition Food Service. Child Nutrition Food Programs is defined as "Trade channel where food products are approved for sale as part of a child nutrition program (for schools K-12, nurseries, daycare, etc.) such as the USDA Foods for Child Nutrition Programs".

# Data Synchronization Implementation Guide

## REVISION HISTORY

Date	Version #	Description of Change	Author
5/7/2021	1	Initial document	M. Crown, B. Curran
8/3/2021	2	Updated Trade Channel Attribute	B. Curran