Data Export Specifications

inTEAM Associates, LLC

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Contents

Version History

Date	Doc Version	Data Spec Version	Item File Version	Recipe File Version	Description of change
2022 Aug 26	2.1	2.0.0	2.0.0	2.0.0	Added more information about the entire process.
2022 Aug 18	2.0	2.0.0	2.0.0	2.0.0	Added more info to Data Spec and how to process the file. Field wrapper changed from a non-standard string (|~|) to the more standard double-quotes ("). Updated Item and Recipe File column structure and valid values for several fields.
2021 Sep 30	1.0	1.0.0	1.0.0	1.0.0	New document.

Document Version: Tracks changes to this document. Minor version changes will not result in a change to the version of the Data Spec, Item File, or the Recipe File.

Data Spec Version: Tracks changes to the actual Data Specification, which not only includes the Item File and/or Recipe File formats, but also any changes to how the files are processed that may not change the specific format of the Item File and/or Recipe File.

Item File Version: Tracks changes to the format of the Item File.

Recipe File Version: Tracks changes to the format of the Item File.

Background

GDSN Connect provides K-12 school districts with access to items and product information from the **Nourish to Flourish (N2F) Database** and allows districts to export this product data into their current child nutrition software system (menu planning, inventory, etc.). The N2F Database was developed as part of an industry-wide effort to standardize the sharing of school nutrition production information across all K-12 stakeholders and is built upon the **Global Data Synchronization Network (GDSN)**. GDSN is an existing framework that manufacturers worldwide use to communicate product information to their customers. The N2F Database connects to GDSN to standardize the specific data fields most needed by K-12 menu planners into a single format that can be used throughout various K-12 applications. GDSN Connect then exports that product data adhering to the data standards developed by the N2F efforts, and **this document provides districts with the information they need to setup the integration into their existing software**.
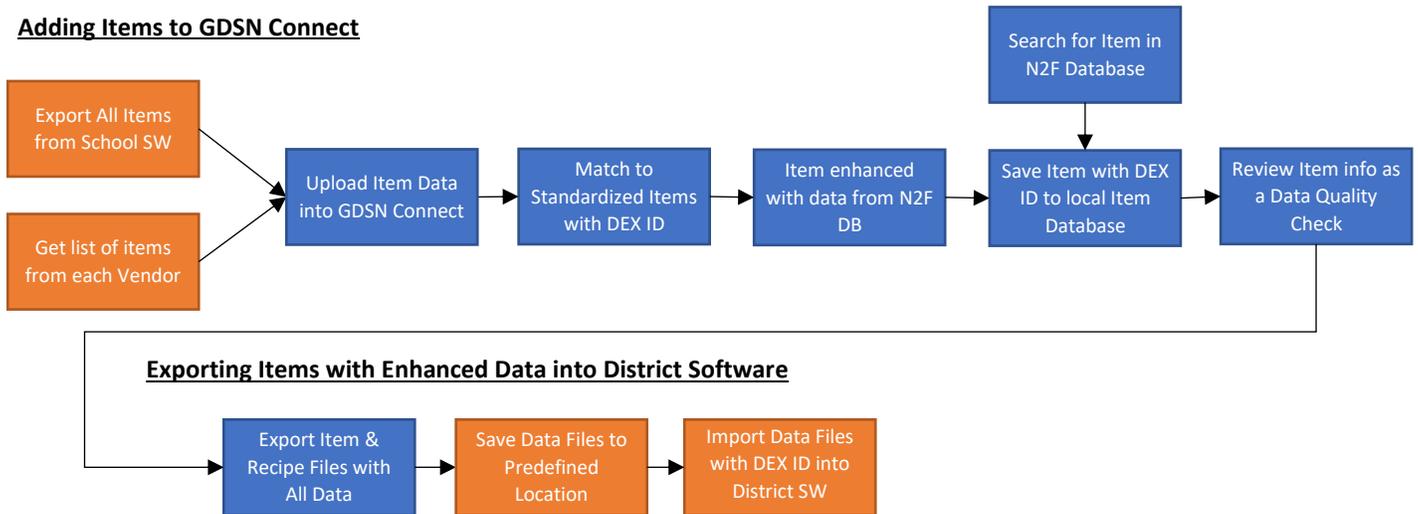
Adding Items to GDSN Connect

Figure 1. Process to add Items into GDSN Connect and export into District's software

Nourish to Flourish Product Identifiers

Standardized Identifiers

DEX ID

All items within the N2F Database contain a standardized unique identifier called the **DEX ID**. A DEX ID is the unique identifier that is primarily linked to the menu planning information about a product (nutrients, allergens, meal pattern credits, etc.) but also contains the relationship to the procured item (net weight, servings per pack, etc.).

GDSN and GTINs

Item data from manufacturers populates many of the items within the N2F Database via GDSN. Each of these products in GDSN has a unique 14-digit identifier, called a **Global Trade Item Number (GTIN)**. Manufacturers sometimes create distinct GTINs for different levels of the product within a hierarchy (e.g., Each → Pack → Case → Pallet). The lowest level of the hierarchy contains the "**Base GTIN**", and it is typically a Case or sometimes an Each or Pack. Within the N2F Database, the DEX ID is usually the Base GTIN.

Manufacturers also flag which of these levels/GTINs can be ordered by customers ("**Purchase Unit GTIN**"). Most of the time, the Base GTIN and the Purchase Unit GTIN are the same, but there are some exceptions. One example is when the Base GTIN is an Each while the Purchase Unit GTIN is the Case. The other example is when there are multiple Purchase Unit GTINs for a single Base GTIN, such as a granola bar at the Each level (the Base GTIN) that comes in a Case of 24 bars vs. a Case of 48 bars (which are two distinct Purchase Unit GTINs). The DEX ID is the Base GTIN in these examples, but the full record stored within the district's local database contains the Purchase Unit GTIN as well.
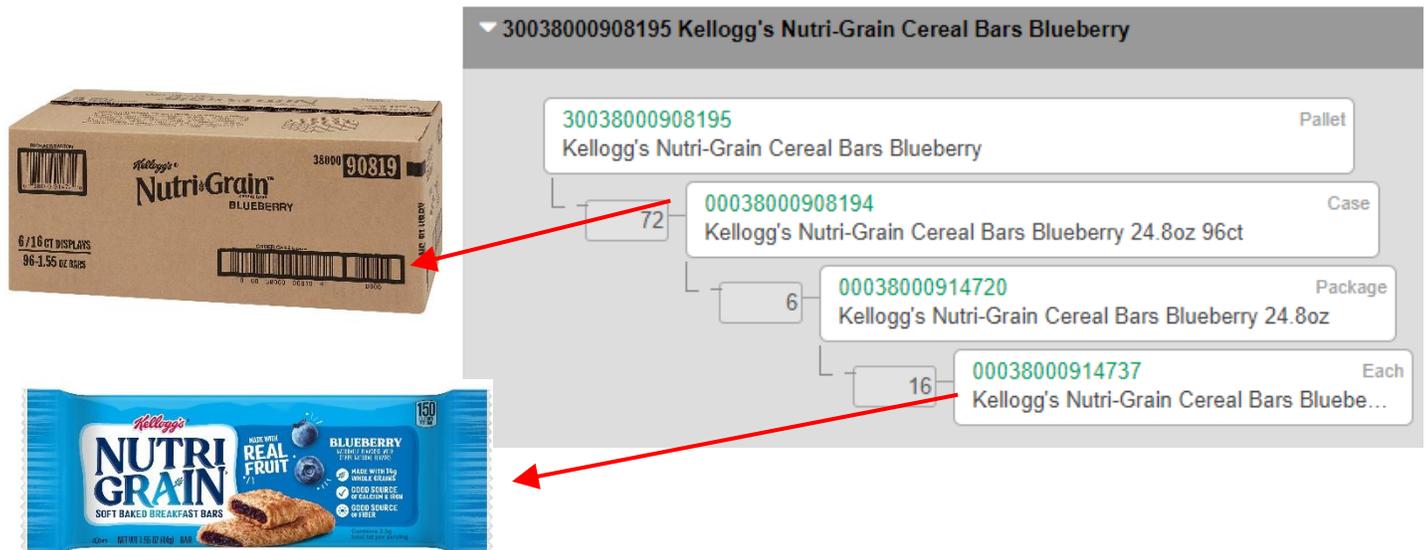

Figure 2. Example hierarchy of GTINs within GDSN

Generic Items

Not every product used by districts has a GTIN or is available in GDSN. For these Items (e.g., fresh produce or local bakery and dairy items), the N2F Database also contains standardized "**Generic**" Items which have nutrient and procurement data from USDA sources that can be matched to the procurement information provided during initial setup to create a fully standardized record. Each of these Generic items have their own unique standardized DEX ID and share the same formatting for records from GDSN.

Manually Added Items

For items that aren't in GDSN and don't match with a Generic item, districts can manually setup these items in their local Item Database in GDSN Connect. These items are assigned a unique DEX ID and adhere to the same data standards as the other items from the N2F Database.

Matching to Standardized Items

GDSN Connect contains an upload and matching wizard, which allows schools to take a product report from their vendors or existing software and easily match it to one of the standardized Items within the N2F Database (from either GDSN or one or more of the Generic items). This item record will be enhanced with any additional data from the N2F Database, and the district can review and further modify the item data as well prior to exporting into their other software.

Unique Identifiers

The DEX ID/GTIN is the unique identifier of the product within the N2F Database and is standardized across all school districts for the same product. However, because districts may have some products that share the same DEX ID (e.g. two cases of apples with different net weights that are both matched to the same Generic DEX ID), GDSN Connect assigns a district-specific unique identifier for each item, called the DEX LOCAL ID. Additionally, schools may configure a single procurement item for use on a menu prepared and served in different ways (e.g., a case of apples that can be served as sliced apples vs. whole apple with different serving sizes and servings per case). GDSN Connect and the N2F Database data standards provide additional unique identifiers to accommodate this flexibility. The relationship between all these identifiers is described below:

Nourish to Flourish IDs

- **DEX ID**: Standardized ID from N2F Database of item across different districts. May be multiple instances in a single district. Generated by N2F Database.

- **DEX Local Item ID**: Unique ID of Standardized Item *in the district's local database in GDSN Connect*, particularly with info used for inventory or procurement. May be linked to multiple DEX Local Menu IDs. Generally mapped to one District Item ID. Generated by GDSN Connect.

- **DEX Local Menu ID**: Unique ID of the Standardized Item or the Recipe *in the district's local database in GDSN Connect*, particularly containing info related to menu planning. A single DEX Local Menu ID may be linked to multiple DEX Local Item IDs (e.g., "Whole Apple" for planning menus may be linked to two different cases of apples of different net weights). Generally mapped to one District Menu ID. Generated by GDSN Connect.

School SW IDs

GDSN Connect and the N2F data standards also support an identifier for each product as used within the district's existing software. These fields are used to match Items and Recipes in GDSN Connect back into an existing Item or Recipe within the district's software so the values can be kept in sync.

- **District Item ID**: Unique ID of Item in District SW as used for inventory or procurement. May be linked to multiple District Menu IDs (e.g., one case of apples used on menus in different ways). Generally associated with one DEX Local Item ID. Generated by District SW or otherwise assigned by district.

- **District Menu ID**: Unique ID of Item (or Recipe) in District SW as used for menu planning. Items may be linked to multiple District Item IDs. Generally mapped to one DEX Menu ID. Generated by District SW or otherwise assigned by district.

Exporting from GDSN Connect

Items and Recipes

In addition to the standardized Items districts maintain in GDSN Connect from the Nourish to Flourish Database, districts can also create Recipes within GDSN Connect using these standardized Items as ingredients. These Recipes can be exported to the district's existing software with the unique DEX for each ingredient to facilitate improved forecasting and inventory tracking.

Each Item within N2F contains all the information about that item, including not just the procurement information, but also the nutrient, meal pattern credit, and other information needed for menu plans. Recipes are simply a collection of these Items (or even other Recipes) as ingredients that can automatically calculate nutritional information, and they may also contain directions on how to prepare those Recipes.

NOTE: Some other software systems use the term "Item" to refer only to the unit that is purchased (e.g., the case), and then require users to setup "Recipes" which contain one or more of these items to hold the nutritional information. Using this terminology, Items within the N2F Database are really "single ingredient recipes" in the other systems. Please be aware of this terminology different to avoid issues during the integration.

Export Process

The export process described below for Items and/or Recipes from GDSN Connect is executed "on-demand" by the user. The exported data files in CSV format—one for Items and one for Recipes—are generated by GDSN Connect, then saved and/or transported to a secure location where they can be accessed manually or consumed through automated processing. Each data file contains all *active* Items or Recipes setup in the district's local database.

Importing into Existing District Software

The specific process to import the Item and/or Recipe data files into the district's existing software will depend on the software and version used by the district and whether the software is hosted on the cloud or if the district controls access to the database tables. Many district software applications include a user interface to manage importing data from complimentary systems (e.g., student roster data from the Student Information System), or even pre-configured uploads for specific data files such as from GDSN Connect. Many systems provide tools to allow the user to define their own data imports and the associated business rules for updating each field (e.g., IGNORE, REFORMAT, OVERWRITE, or CONDITIONALY OVERWRITE) and to review the results prior to processing the added or updated records.

NOTE: When importing the files, it's recommended to first import the Item Data File before importing the Recipe Data File. Each ingredient in the Recipe Data File contains a reference to an Item in the Item Data File, so it is important that the Items are properly setup in the district's existing software before attempting to import the Recipes.

Cloud-Hosted

If the import functionality described above isn't available in the district's existing software or the pre-configured upload format are not yet available for GDSN Connect data files and the software is *hosted by the vendor on the cloud*, the district will need to request that their software vendor add the functionality to import the GDSN Connect Item and Recipe data files into their database and map them into the correct fields.

District-Hosted

If this import functionality described above isn't available in the district's existing software and the software is *installed on a server at the district and they have control over the database tables*, then the district can setup their own import process to match with their specific installation. If the district needs assistance, there are third-party import specialists who can help set this process up.

To support this setup process, inTEAM provides a set of SQL scripts that the district's IT staff can use to create the new item and recipe import database tables for N2F Item and Recipe records as well as scripts to actually import the data files into these tables. Once the staging tables are setup, the district IT simply needs to map the fields from these Item and Recipe Import tables into the structure of the district's software. The process in which this can be done is highly variable depending on the needs and capabilities of the district.

inTEAM Support Files

- DDL_FOR_DEX_ETL.sql: Script that creates the ItemImport and RecipeImport staging tables.
- BulkInsert_for_ItemImport.sql: Script that imports the exported Item data file to the ItemImport staging table.
- Format_For_ItemImport.xml: Format definition file for the Item data file, used by the import script.
- BulkInsert_for_RecipeImport.sql: Script that imports the exported Recipe data file to the RecipeImport staging table.
- Format_For_RecipeImport.xml: Format definition file for the Recipe data file, used by the import script.

NOTE: These scripts are written for a SQL Server database, but they can be adapted to other databases (Oracle, MySQL, etc.).

Data File Format Specifications

GDSN Connect exports two files: Item Files and Recipe Files. Each file contains the entire set of *active* records in the district's item or recipe database (inactive records are excluded).

File Naming Conventions

Files are named to indicate the type of content (Item or Recipe), the date/time the export file was generated (in yyyymmddhhmm format with the hours in 24-hour format), and the file version of the export (in X.Y.Z format, where X is a major change (e.g., new data fields/columns); Y is a minor change (e.g., formatting inside a cell); and Z is a revision (e.g., new valid value).

Example: ItemExport_202208161530_v2.0.0.csv

CSV Formatting Notes

The Item and Recipe export files are provided as a comma-separated-value (CSV) flat-file that adhere to the RFC 4180 guidelines (https://www.rfc-editor.org/rfc/rfc4180.html).

- Each file has a header row that contains the column names.
- All fields are enclosed in quotes ("), and any value that contains quotes within its text (e.g. 10" tortilla) will be replaced with a double quotes ("").
  - Example: The value from the example above will appear as "10"" Tortilla".

Images and Documents

Image and document files (e.g., product images, CN Label images) are stored on inTEAM's servers and the item and recipe data files contain the URL to access the image or document (credentials are not required). This is a common approach similar to how product images are shared via GDSN or student profile images are shared by Lifetouch.

Field Rules Meaning in Data Spec Tables

The Data Fields column in the data spec tables below have the following meanings to maintain maximum compatibility with the Nourish to Flourish data standards:

- M – Mandatory: Required (in most cases) to ensure standardization and data quality.
- D – Mandatory because of dependency: Required in certain situations (e.g., a unit of measure that qualifies a size or weight.)
- R – Recommended: Provides highly useful information (when available).
- O – Optional: Provides useful information for some scenarios (when available).
- NA – Not Applicable: Not applicable for some situations (e.g., nutrient values for Non-Foods items)

Item Data File

Item data is used to create the master database of standardized items to be used by each district on their menus and in recipes and includes relationships to procured items/purchase units for inventory and procurement systems.

Every Item Data file contains one row for the following unique *active* records/factors in GDSN Connect:
- DEX Local Item ID
- DEX Local Menu ID
- Vendor Name

If there are two "DEX Local Menu ID" records (e.g., for "Apple, Sliced" and "Apple, Whole") associated with a single "DEX Local Item ID" record (e.g., "40 lb Case of Apples"), then there will be two records in the data file for that item. If that item has one "DEX Local Menu ID" and one "DEX Local Item ID" but can be procured from two different vendors, then there will be two records.

The section below describes the data elements within the **Item Data File**.

ITEM Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
DEX_ID	M	Text (100 char)	The DEX_ID is a standardized identifier for an item. Typically, this value is the same as the item's 14-digit GTIN. For example: 00856235005033.	00073420201005 --- A9000050 --- X002570252
DEX_Local _Menu_ID	M	Numeric	Unique identifier for item's menu planning info within the district's local database. Format: Integer	365820
District _Menu_ID	R	Text (50 char)	Unique identifier used in the district's existing software for the item's menu planning/recipe information.	ABC12345 ---- SCRM010 ---- 36820 ---- 00073420201005
Item_Type	M	Text (20 char)	Denotes whether an item is food or non-food. Note: For non-food items, some fields will be null that would otherwise require mandatory, valid values. **Valid Values**: Foods, Non-Foods	Foods ---- Non-Foods
GTIN_Base	R	Numeric Text (14 char)	The Base Unit GTIN for the product. This may be different from the Purchase Unit GTIN. Format: A numeric value 14 characters in length, including leading zeros. **Mandatory** for items from GDSN.	00073420201005 ---- 00856235005033
Item_Name _Menu	M	Text (100 char)	The name of the item as it would appear on a Menu or Production Record.	1OZ DAISY BRAND REGULAR SOUR CREAM SINGLE SERVE PACKET ---- 5 Way Mix Vegetable ---- AdvancePierre™ Fully Cooked Flamebroiled Rib Shaped Pork Patties flavored with BBQ Sauce, 2.5 oz
Brand_Name	R	Text (100 char)	The name of the Brand.	Daisy Brand ---- Advance Pierre
Manufacturer	R	Text (100 char)	The name of the Manufacturer.	Daisy Brand ---- Tyson Foods, Inc.

ITEM Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Mfr_Item_ID	R	Text (50 char)	The product number or code that the manufacture uses to identify the product.	00073420201005 ---- 201005 ---- FFASN0500MUS01
Item_Image _URL	O	Text (1,000 char)	A list of URL(s) with the location of the product image(s) associated with the item. If there are more than one, the first URL in the list is the primary file. Supported file types are JPG. Record delimiter: double-pipe || Format: <URL1>||<URL2>||…	https://app.gdsnconnect.com/Content/85ceb459-0989-42d2-ba4e-d03395bc3b10.jpg ---- https://app.gdsnconnect.com/Content/85ceb459-0989-42d2-ba4e-d03395bc3b10.jpg|| https://app.gdsnconnect.com/Content/dae8b232-7c71-415c-801e-8a947213fcad.jpg
CN_Label _Number	O	Text (50 char)	CN Label # for the product.	093793
CN_Label _Statement	O	Text (1,000 char)	CN Label crediting statement.	Each 4.46 oz. Cheese Pizza, provides 2.00 oz. equivalent meat alternate, 2.00 oz. equivalent grains, and 1/8 cup red/orange vegetables for the Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 03-18.) ---------- Cut each 44.53 oz. Cheese Pizza into 8 equal 5.56 oz. portions. Each 5.56 oz. portion (by weight) provides 2.00 oz. equivalent meat alternate, 3.00 oz. equivalent grains, and 1/8 cup red/orange vegetable for the Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 12-16.)
CN_Label _Expiration _Date	O	Text (30 char)	CN Label expiration date. Format: yyyy/mm/dd	2022/05/15
CN_Label _File_URL	O	Text (1,000 char)	A list of URL(s) with the location of the CN Label files associated with the item. If there are more than one, the first URL in the list is the primary file. Supported file types are JPG and PDF. Record delimiter: double-pipe || Format: <URL1>||<URL2>||…	https://app.gdsnconnect.com/Content/85ceb459-0989-42d2-ba4e-d03395bc3b10.jpg ---- https://app.gdsnconnect.com/Content/85ceb459-0989-42d2-ba4e-d03395bc3b10.jpg|| https://app.gdsnconnect.com/Content/dae8b232-7c71-415c-801e-8a947213fcad.pdf

ITEM Data				
Field Name	Field Rules	Data Type	Notes	Example Values
Product _Formulation _Statement	O	Text (5,000 char)	PFS crediting statement.	
PFS_File_URL	O	Text (1,000 char)	A list of URL(s) with the location of the Product Formulation Statement files associated with the item. If there are more than one, the first URL in the list is the primary file. Supported file types are JPG and PDF. Record delimiter: double-pipe || Format: <URL1>||<URL2>||…	https://app.gdsnconnect.com/Images/85ceb459-0989-42d2-ba4e-d03395bc3b10.jpg ---- https://app.gdsnconnect.com/Images/85ceb459-0989-42d2-ba4e-d03395bc3b10.jpg|| https://app.gdsnconnect.com/Images/dae8b232-7c71-415c-801e-8a947213fcad.pdf
Serving_Size _Description	O	Text (1,000 char)	A description of the serving size. *Not applicable for items of type non-food.	1 bar ---- 1 Roll (14g) ---- 0.25 cup (37 g)
Serving_Size _Weight	M/ *NA	Numeric	Quantifies the weight of a serving (such as "ounces" or "grams"). This should correspond to the values specified for the nutrients. Format: Up to 4 decimal places Either a value for Serving Size Weight or Serving Size Measure is mandatory; both are optional but not required. *Not applicable for items of type non-food.	1.3400 ---- 85.0000 ---- 37.4900
Serving_Size _Weight_UOM	D/ *NA	Text (100 char)	Describes the Unit of Measure for the Serving Weight. Mandatory when Serving_Size_Weight is provided *Not applicable for items of type non-food. **Valid Values:** oz, grams, pounds	oz ---- grams ---- pounds

ITEM Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Serving_Size _Measure	M/ *NA	Numeric	Quantifies the measure or volume of a serving (such as "cup", "fluid ounces", or "each"). This should correspond to the values specified for the nutrients. Format: Up to 4 decimal places. Either a value for Serving Size Weight or Serving Size Measure is mandatory; both are optional but not required. *Not applicable for items of type non-food.	0.2500 ---- 1.0000
Serving_Size _Measure _UOM	D/ *NA	Text (100 char)	Describes the Unit of Measure for Serving Measure. Mandatory when Serving_Size_Measure is provided. *Not applicable for items of type non-food. **Valid Values**: cups; each; tbsp; tsp; fluid-ounces	cups ---- each ---- fluid-ounces
Meal_Credit _Serving_Size	D/ *NA	Number	The Meal Credit Serving Size used as "basis" for the creditable component claims. This value may be different than the Serving Size specified for the item's nutrients, and applies to all meal component types. This may be either a Serving Size Weight or Measure, but only one. Format: Up to 4 decimal places. * Mandatory if Meal Credit Components are provided. *Not applicable for items of type non-food.	1.0000 ---- 81.0000 ---- 0.2500

ITEM Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Meal_Credit _Serving_Size _UOM	D/ *NA	Text (100 char)	Describes the Unit of Measure for the Meal Credit Serving Size. * Mandatory when Meal_Credit_Serving_Size is provided. * Not applicable for items of type non-food. **Valid Values**: oz; grams; pounds; cup; each; tbs; tsp; fluid ounce.	oz ---- cup ---- each ---- fluid ounces

Meal_Credits	R/ *NA	Text (4,000 char)	Child Nutrition creditable component types and values.	[GRAIN_WHOLE_RICH][1.0000][oz eq]||[MMA][2.0000][oz eq]
			*Not applicable for non-food items. Format: Delimited text field containing all meal credits for the item. An item may have multiple creditable component types, which are all listed within this field. All internal fields are required. • Record delimiter: double-pipe || • Field begin: Left square bracket [• Field end: Right square bracket] Internal fields include: • Creditable Component • Creditable Amount (number up to 4 decimal places) • Creditable Amount UOM **Valid Values for Creditable Amount UOM**: oz-eq; cups; servings. **Valid Values for Creditable Component**: MMA MMA_EXTRA MMA_GRAIN GRAIN GRAIN_WHOLE_RICH GRAIN_DESSERT GRAIN_WHOLE_RICH_DESSERT PLAIN_DESSERT VEG_DARK_GREEN VEG_RED_ORANGE VEG_BEANS_PEAS VEG_STARCHY VEG_OTHER VEG_ADDITIONAL FRUIT JUICE_VEG_DG JUICE_VEG_RO JUICE_VEG_OTHER JUICE_FRUIT MILK_FF_FLAVORED MILK_FF_UNFLAVORED MILK_LF_FLAVORED MILK_LF_UNFLAVORED MILK_RF CONDIMENT NON_CREDITABLE	---- [GRAIN_WHOLE_RICH][2.0000][oz eq]||[MMA][2.0000][oz eq]||[VEG_RED_ORANGE][0.1250][cup] --- [CONDIMENT][][]

ITEM Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Calories_kcal	M/ *NA	Numeric	Calories, in kilocalories, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	90.0000
Total_Fat_g	R/ *NA	Numeric	Total Fat, in grams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	0.0000
Trans_Fat_g	R/ *NA	Numeric	Trans Fat, in grams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	0.0000
Sat_Fat_g	M/ *NA	Numeric	Saturated Fat, in grams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	0.0000
Cholesterol_mg	R/ *NA	Numeric	Cholesterol, in milligrams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	0.0000
Sodium_mg	M/ *NA	Numeric	Sodium, in milligrams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	10.0000
Potassium_mg	R/ *NA	Numeric	Potassium, in milligrams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	88.0000
Iron_mg	R/ *NA	Numeric	Iron, in milligrams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	0.0000
Total_Carbs_g	R/ *NA	Numeric	Total Carbs, in grams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	0.0000

ITEM Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Dietary_Fiber_g	R/ *NA	Numeric	Dietary Fiber, in grams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	2.0000
Total_Sugar_g	R/ *NA	Numeric	Total Sugar, in grams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	22.0000
Added_Sugar_g	R/ *NA	Numeric	Added Sugar, in grams, associated with the Serving Size Weight/Measure. This amount is included in the Total Sugar quantity. Format: Up to 4 decimal places. *Not applicable for non-food items.	22.0000
Protein_g	R/ *NA	Numeric	Protein, in grams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	0.0000
Calcium_mg	R/ *NA	Numeric	Calcium, in milligrams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	6.0000
Vitamin_A_mcg	R/ *NA	Numeric	Vitamin A, in micrograms, associated with the Serving Size Weight/Measure. NOTE: This is not in IUs. See https://www.fda.gov/food/cfsan-constituent-updates/fda-provides-guidance-industry-convert-units-measure-certain-nutrients-nutrition-and-supplement Format: Up to 4 decimal places. *Not applicable for non-food items.	0.0000
Vitamin_C_mg	R/ *NA	Numeric	Vitamin C, in milligrams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	0.0000

ITEM Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Vitamin_D_mcg	R/ *NA	Numeric	Vitamin D, in micrograms, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable for non-food items.	0.0000
Ingredient _Statement	R	Text (5,000)	Ingredient statement.	Pasteurized Milk, Cheese Culture, Salt, Enzymes, Natamycin (a natural mold inhibitor).
Allergen_Claims	R	Text (1,000)	The full set of allergen types and claims. *Not applicable for non-food items. Format: Delimited text field containing all allergen types and claims for the item. An item may have multiple allergen types, which are all listed within this field. All internal fields are required. • Record delimiter: double-pipe || • Comma used to separate Allergen from its Claim Internal fields include: • Allergen Type • Allergen Claim **Valid Values for Allergen Type:** MILK PEANUT FISH SOY EGG TREE_NUT SHELLFISH WHEAT SESAME **Valid Values for Allergen Claim:** CONTAINS MAY_CONTAIN DOES_NOT_CONTAIN FREE_FROM NOT_INHERRENTLY_INCLUDED DERIVED_FROM NOT_DERIVED_FROM UNDECLARED	MILK,CONTAINS||PEANUT, DOES_NOT_CONTAIN

ITEM Data				
Field Name	Field Rules	Data Type	Notes	Example Values
Country_Of _Origin	O	Text (25 char)	County of origin for the product. Format: Content includes various forms: country name, country-name abbreviation, or comma-separated abbreviations (for multiple countries). Translations for the GDSN Country Codes can be found here: https://resources.gs1us.org/GS1-US-Data-Hub-Help-Center/ArtMID/3451/ArticleID/119/Country-Codes-Based-on-ISO-3166	United States ---- CA, US ---- MX
GPC_Code	R	Numeric Text	Global Product Classification code used in GDSN. These classifications can be found at: https://gpc-browser.gs1.org/ Format: A text value, containing only numeric digits, 8 characters in length.	10005778 ---- 10000219 ---- 10000245
Storage _Instructions	O	Text (4,000 char)	Storage instructions.	Keep frozen until ready to use. Thaw overnight at room temperature. Shelf life at room temperature - 5-7 days. ---- Room temperature, 60-90F;
Max_Storage _Temperature	O	Text (50 char)	Maximum storage temperature, preferably in degrees F. Format: Text content may include both the value and unit (degree F or C). Values without units usually Fahrenheit.	90 ---- 90F ---- 10
Min_Storage _Temperature	O	Text (50 char)	Minimum storage temperature, preferably in degrees F. Format: Text content may include both the value and unit (degree F or C). Values without units usually Fahrenheit.	33 ---- -20 ---- -20F
Directions_And _Notes	O	Text (8,000)	Preparation instructions, directions, and/or notes for the item. Format: Plain text or it may include HTML markup tags.	For best results, thaw calzones before heating. Ovens and microwaves may vary; cooking times may need to be adjusted. For Microwave (1000W), cook 1.5 to 2 minutes or until internal temperature reaches 160 degrees. Additional cooking time may be required for lower wattage microwave ovens. Conventional oven: cook 10-12 minutes at 350 degrees or until internal temperature reaches 160 degrees. FOR FOOD SAFETY, ENSURE PRODUCT REACHES AND INTERNAL TEMPERATURE OF 160 DEGREES F.

ITEM Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
DEX_Local _Item_ID	M	Numeric	Unique identifier for item's procurement/inventory info within the district's local database. Format: Integer	2130 ---- 28525
District _Item_ID	R	Text (50 char)	Unique identifier used in the district's existing software for the item's procurement/inventory information.	SCRM01002
Item_Name _Inventory	R	Text (1,000 char)	The name of the item as it is used in the district's inventory system.	Sour Cream
Item_Name _Vendor	R	Text (1,000 char)	The name of the item as it is used by the vendor.	Cream Sour All Natural Stick Pack
Purchase_Unit _Type	M	Text (50 char)	Standardized description of the item as it's procured (the "Purchase Unit"). **Valid Value**s: Can be anything, but predefined values are Case, Pound, and Gallon.	Case --- Pound --- 50-pound bag
GTIN_PU	R	Numeric Text (25 char)	The Purchase Unit GTIN for the product. This may be different from the Base Unit GTIN. Format: A numeric value 14 characters in length, including leading zeros. **Mandatory** for items from GDSN.	10889356009878 ---- 00856235005033
Vendor_Name	R	Text (250 char)	Name of Vendor. When no vendor is assigned, the value will be "Unspecified".	Sysco --- USDA Commodity Foods --- Unspecified
Vendor_Product _ID	R	Text (50 char)	Vendor's product-identifier for the item. For USDA Brown Box items, this would be the WBSCM code.	7071406

ITEM Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Vendor_Price	O	Text (1,000)	Price of the item from the Vendor and the effective date of that price, as well as the value of any donated foods and any separately tracked handling fees. Current price is included, as well as any future set of pricing information. Format: Delimited text field containing all effective dates, price, and other info for the item. All internal fields are required. • Record delimiter: double-pipe || • Comma used to separate the different fields Internal fields include: • Effective Date (Format: yyyy/mm/dd) • Commercial Price (Format: Numeric, up to 4 decimal places) • Donated Value (Format: Numeric, up to 4 decimal places) • Handling Fee (Format: Numeric, up to 4 decimal places)	2022/07/01,36.14,14.72, --- 2022/07/01,0.00,25.71,2.14 --- 2022/07/01,12.4414,,|| 2022/09/01,13.5122,
Net_Weight _Lbs	M	Number	Net weight of the item. Format: Up to 4 decimal places.	6.2500
Servings_Per _Purchase_Unit	M	Number	Number of servings (as served) in one Purchase Unit. Format: Up to 4 decimal places. *Not applicable for non-food items.	100.0000
Inventory_Unit _Type	M	Text (50 char)	Standardized description of the item as it's tracked in inventory (the "Inventory Unit"). **Valid Value**s: Can be anything, but predefined values are Case, Pound, Package, Gallon, Quart, Pint, Each, #10 Can, #2 Can, #2.5 Can, #3 Cyl. Can, #300 Can.	Case ---- 30-lb Case ---- Package
Servings_Per _Inventory_Unit	M	Number	Number of servings (as served) in one Inventory Unit. Format: Up to 4 decimal places. *Not applicable for non-food items.	100

ITEM Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
IUs_Per_PU	M	Number	Number of Inventory Units in one Purchase Unit. Format: Up to 4 decimal places.	1 ---- 24
Servings_Per_LB	M	Number	Number of servings (as served) in one Pound (as purchased). Format: Up to 4 decimal places. *Not applicable for non-food items.	16.0000
Contains _Commodity	O	Text	Denotes if the item is a USDA brown box item or a processed commodity. Valid Values: TRUE, FALSE *Not applicable for non-food items.	TRUE ---- FALSE
Last_Changed	M		Date and time of when the record was last changed by the district. Format: yyyy/mm/dd hh:mm (in 24-hour format)	2022/08/18 23:11

Recipe Data File

The DEX export of each Recipe defines a collection of standardized Items (or other Recipes) which, together, make up a Recipe for use on menus.

Every Recipe Data file contains one row, and only one row, for each *active* Recipe in the database in GDSN Connect. Ingredients in the Recipe will have "DEX Local Menu ID" values to link those back to the Items in the Item File.

The section below describes the data elements within the **Recipe Data File**.

RECIPE Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
DEX_Local _Menu_ID	M	Numeric	Unique identifier for recipe's menu planning info within the district's local database in GDSN Connect. Format: Integer	601426
District_Menu_ID	R	Text (50 char)	Unique identifier used in the district's existing software for the recipe.	ABC12345 ---- SCRM010 ---- 36820
Recipe_Type	M	Text (20 char)	Denotes the type of recipe and how it's used. **Valid Values**: Entree, Side	Entree ---- Side
Recipe_Name	M	Text (100 char)	The name of the recipe as it would appear on a Menu or Production Record.	Ground Beef Stroganoff ---- Turkey and Cheese Sandwich
Recipe_Number	M	Text (100 char)	District assigned number for the recipe	USDA D-24 ---- #1552
Meal_Session	M	Text (20 char)	Meal session that the recipe is created on. **Valid Values**: Breakfast; Lunch; Snack; Supper; Other.	Lunch
Recipe_Image _URL	O	Text (1,000 char)	A list of URL(s) with the location of the image(s) associated with the recipe. If there are more than one, the first URL in the list is the primary file. Supported file types are JPG. Record delimiter: double-pipe || Format: <URL1>||<URL2>||…	https://app.gdsnconnect.com/Content/85ceb459-0989-42d2-ba4e-d03395bc3b10.jpg ---- https://app.gdsnconnect.com/Content/85ceb459-0989-42d2-ba4e-d03395bc3b10.jpg||https://app.gdsnconnect.com/Content/dae8b232-7c71-415c-801e-8a947213fcad.jpg
Serving_Size _Description	O	Text (1,000 char)	A description of the serving size.	1 bar ---- 1 Hamburger ---- 0.25 cup

RECIPE Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Serving_Size _Weight	M*	Numeric	Quantifies the weight of a serving (such as "ounces" or "grams"). This should correspond to the values specified for the nutrients. Format: Up to 4 decimal places *Either a value for Serving Size Weight or Serving Size Measure is mandatory; both are optional but not required.	1.3400 ---- 85.0000 ---- 37.4900
Serving_Size _Weight_UOM	D	Text (100 char)	Describes the Unit of Measure for the Serving Weight. Mandatory when Serving_Size_Weight is provided **Valid Values:** oz, grams, pounds	oz ---- grams ---- pounds
Serving_Size _Measure	M*	Numeric	Quantifies the measure or volume of a serving (such as "cup", "fluid ounces", or "each"). This should correspond to the values specified for the nutrients. Format: Up to 4 decimal places. * Either a value for Serving Size Weight or Serving Size Measure is mandatory; both are optional but not required.	0.2500 ---- 1.0000
Serving_Size _Measure _UOM	D	Text (100 char)	Describes the Unit of Measure for Serving Measure. Mandatory when Serving_Size_Measure is provided. **Valid Values**: cups; each; tbsp; tsp; fluid-ounces.	cups ---- each ---- fluid-ounces
Yield	M	Numeric	The number servings the recipe will yield. Format: Integer	50 ---- 1
Ingredient_Count	M	Numeric	The number of ingredients defined within the recipe. Provided to help parsing the data elements from the Ingredients. Format: Integer	9

RECIPE Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Ingredients	M	Text (4,000 char)	List of ingredients used in the Recipe. Ingredients are either Items (from the Item Data File) or other Recipes in this file (referred to as sub-recipes), and are shown in the order in which they should appear in the recipe ingredient list. Format: Delimited text field containing all ingredients for the recipe. All internal fields are required. • Record delimiter: double-pipe || • Field begin: Left square bracket [• Field end: Right square bracket] Internal fields include: • DEX Local Menu ID (from Item or Sub-Recipe record) • District Menu ID • Ingredient Name (text 100, could be different from Item Name) • Recipe Qty-Weight (number to 4 decimal places) • Recipe Qty-Weight UOM • Recipe Qty-Measure (number to 4 decimal places) • Recipe Qty-Measure UOM • PR Detail (text, TRUE denotes whether the ingredient appears separately on the Production Record to have a different qty) **Valid Values for Recipe Qty-Weight UOM**: oz, grams, pounds **Valid Values for Recipe Qty-Measure UOM**: cups; each; tbsp; tsp; fluid-ounces **Valid Values for PR Detail**: TRUE, FALSE	[1323301][][Cream of Mushroom Soup][250.0000][oz][][][FALSE]||[634223][][][Beef, Fine Ground, 85/15, Frozen][17.0000][pounds][][][FALSE]||[1635783][Flour Wheat][9.0000][oz][2.1260][cup][FALSE]||[269229][] [Onions, Raw, Chopped][56.0000][oz][9.9220][cup][FALSE]||[1957026][] [Spice Parsley Flakes][12.8640][grams][0.6700][cup][FALSE]||[634210][] [Salt, Table][24.0000][grams][4.0000][tsp][FALSE]||[1957018][] [Spice Garlic Powder][9.3000][grams][1.0000][tbsp][FALSE]||[1957081][] [Milk-Reconstituted][][][6.6700][cup][FALSE]||[1957027][] [Spice Pepper Black Ground][4.6000][grams][2.0000][tsp][FALSE]

RECIPE Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Nutrient_Override	M	Text (10 char)	Flag that specifies whether the recipe nutrients are calculated from the ingredients or entered directly at the recipe level. TRUE means that the recipe has meal credits, nutritional values, and allergens specified for the recipe as a whole; those values then become required. FALSE means the system automatically calculates the nutrients, et al values from the ingredients. **Valid Values**: TRUE, FALSE	FALSE

| Meal_Credits | M/ *NA | Text (4,000 char) | Child Nutrition creditable component types and values.

*Not applicable when Nutrient_Override = FALSE.

Format:
Delimited text field containing all meal credits for the item. An item may have multiple creditable component types, which are all listed within this field.

All internal fields are required.
• Record delimiter: double-pipe \|\|
• Field begin: Left square bracket [
• Field end: Right square bracket]

Internal fields include:
• Creditable Component
• Creditable Amount (number up to 4 decimal places)
• Creditable Amount UOM

Valid Values for Creditable Amount UOM: oz-eq; cups; servings.

Valid Values for Creditable Component:
MMA
MMA_EXTRA
MMA_GRAIN
GRAIN
GRAIN_WHOLE_RICH
GRAIN_DESSERT
GRAIN_WHOLE_RICH_DESSERT
PLAIN_DESSERT
VEG_DARK_GREEN
VEG_RED_ORANGE
VEG_BEANS_PEAS
VEG_STARCHY
VEG_OTHER
VEG_ADDITIONAL
FRUIT
JUICE_VEG_DG
JUICE_VEG_RO
JUICE_VEG_OTHER
JUICE_FRUIT
MILK_FF_FLAVORED
MILK_FF_UNFLAVORED
MILK_LF_FLAVORED
MILK_LF_UNFLAVORED
MILK_RF
CONDIMENT
NON_CREDITABLE | [GRAIN_WHOLE_RICH][1.0000][oz eq]\|\|[MMA][2.0000][oz eq]

[GRAIN_WHOLE_RICH][2.0000][oz eq]\|\|[MMA][2.0000][oz eq]\|\|[VEG_RED_ORANGE][0.1250][cup]

[CONDIMENT][][] |

RECIPE Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Calories_kcal	M/ *NA	Numeric	Calories, in kilocalories, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	90.0000
Total_Fat_g	R/ *NA	Numeric	Total Fat, in grams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	0.0000
Trans_Fat_g	R/ *NA	Numeric	Trans Fat, in grams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	0.0000
Sat_Fat_g	M/ *NA	Numeric	Saturated Fat, in grams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	0.0000
Cholesterol_mg	R/ *NA	Numeric	Cholesterol, in milligrams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	0.0000
Sodium_mg	M/ *NA	Numeric	Sodium, in milligrams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	10.0000
Potassium_mg	R/ *NA	Numeric	Potassium, in milligrams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	88.0000

RECIPE Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Iron_mg	R/ *NA	Numeric	Iron, in milligrams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	0.0000
Total_Carbs_g	R/ *NA	Numeric	Total Carbs, in grams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	0.0000
Dietary_Fiber_g	R/ *NA	Numeric	Dietary Fiber, in grams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	2.0000
Total_Sugar_g	R/ *NA	Numeric	Total Sugar, in grams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	22.0000
Added_Sugar_g	R/ *NA	Numeric	Added Sugar, in grams, associated with the Serving Size Weight/Measure. This amount is included in the Total Sugar quantity. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	22.0000
Protein_g	R/ *NA	Numeric	Protein, in grams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	0.0000
Calcium_mg	R/ *NA	Numeric	Calcium, in milligrams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	6.0000

RECIPE Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Vitamin_A_mcg	R/ *NA	Numeric	Vitamin A, in micrograms, associated with the Serving Size Weight/Measure. NOTE: This is not in IUs. See https://www.fda.gov/food/cfsan-constituent-updates/fda-provides-guidance-industry-convert-units-measure-certain-nutrients-nutrition-and-supplement Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	0.0000
Vitamin_C_mg	R/ *NA	Numeric	Vitamin C, in milligrams, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	0.0000
Vitamin_D_mcg	R/ *NA	Numeric	Vitamin D, in micrograms, associated with the Serving Size Weight/Measure. Format: Up to 4 decimal places. *Not applicable when Nutrient_Override = FALSE.	0.0000

RECIPE Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Allergen_Claims	R	Text (1,000)	The full set of allergen types and claims. *Not applicable for non-food items. Format: Delimited text field containing all allergen types and claims for the item. An item may have multiple allergen types, which are all listed within this field. All internal fields are required. • Record delimiter: double-pipe || • Comma used to separate Allergen from its Claim Internal fields include: • Allergen Type • Allergen Claim **Valid Values for Allergen Type:** MILK PEANUT FISH SOY EGG TREE_NUT SHELLFISH WHEAT SESAME **Valid Values for Allergen Claim:** CONTAINS MAY_CONTAIN DOES_NOT_CONTAIN FREE_FROM NOT_INHERRENTLY_INCLUDED DERIVED_FROM NOT_DERIVED_FROM UNDECLARED	MILK,CONTAINS||PEANUT, DOES_NOT_CONTAIN

RECIPE Data				
Field Name	**Field Rules**	**Data Type**	**Notes**	**Example Values**
Directions_And _Notes	O	Text (8,000)	Preparation instructions, directions, and/or notes for the item. Format: Plain text or it may include HTML markup tags.	\<p\>For best results, thaw calzones before heating. Ovens and microwaves may vary; cooking times may need to be adjusted. For Microwave (1000W), cook 1.5 to 2 minutes or until internal temperature reaches 160 degrees. Additional cooking time may be required for lower wattage microwave ovens. Conventional oven: cook 10-12 minutes at 350 degrees or until internal temperature reaches 160 degrees. FOR FOOD SAFETY, ENSURE PRODUCT REACHES AND INTERNAL TEMPERATURE OF 160 DEGREES F.\</p\>