



Food and Nutrition Service
U.S. DEPARTMENT OF AGRICULTURE

CHILD NUTRITION DATABASE DOCUMENTATION

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Child Nutrition Database Overview

The database described in this document is designed and developed for nutrient analysis for the U.S. Department of Agriculture (USDA) Child Nutrition Programs (CNP). Sources of data for the Child Nutrition Database (CNDB) include the USDA Nutrient Database for Standard Reference (SR) Legacy version; nutrient calculations for USDA Standardized Recipes created by USDA for school meal programs; manufacturers' data for foods marketed and sold to school food service; including USDA Foods in Schools (commodity foods) obtained from the Agricultural Research Service's (ARS) Global Branded Food Product Database (Branded Foods); and the Food and Nutrition Service (FNS) added sugars supplement.

Data obtained from Branded Foods is updated monthly and will be reflected in the monthly CNDB release. Data from other sources, as well as any structural format changes, will be updated twice per year, as needed, typically in April and October.

Starting in December 2024, the format of the release version number is CNyear.month, such as CN2024.12 for the December 2024 release.

The CNDB includes six tables: Food Description, Food Category Name, GPC Food Category Name, Weights, Nutrient Values, and Nutrient Description. The abbreviated table names are FDES, CTGNME, GPCNME, WGHT, NUTVAL, and NUTDES.

The database is available in the following file types: Comma-Separated Values (CSV), JavaScript Object Notation (JSON), My SQL, and Extensible Markup Language (XML). For My SQL, one file will be provided for the entire database. For CSV, XML, and JSON, one file for each table will be provided for a total of six files for the complete database.

The CNDB table format charts in this document include the name of each field, followed by the type of field (N=numeric, A=alphanumeric, and D=date), the field length including decimals, and an * (asterisk) symbol to indicate that the field is the primary key or part of the composite primary key, followed by the field description.

Discontinued and Removed Items

Items may be removed from the CNDB for many reasons, such as the manufacturer no longer tagging the item for the Child Nutrition Database or a missing value for a required nutrient. FNS may remove large sets of data at times as updated data becomes available or data becomes out of date.

The CNDB no longer has a status of "discontinued" indicating foods will be removed. Only source code 3 data with a manufacturer provided discontinued date in GS1 will have a discontinued date in the CNDB.

Source code 3 data with a discontinued date provided by the manufacturer will be removed from the CNDB approximately one year after the discontinued date.

Other data may be removed from the CNDB by ARS or FNS without a populated discontinued date.

Release Notes

Release notes are now provided as a separate document and no longer provided in the CNDB Documentation. Release notes will be updated monthly. Please download the current release notes monthly when downloading the current version of the CNDB. The release notes from the previous release are available on the FDC CNDB site.

CNDB Food Item Data Tables

The **CNDB FOOD ITEM** data tables consists of four tables: **FOOD DESCRIPTION**, **FOOD CATEGORY NAME**, **GPC CATEGORY NAME**, and **WEIGHTS**.

The CNDB food item data tables contain information needed for selecting foods and amounts, including the gram weights or milliliters for various units of measure, to calculate accurate nutrient values of menus and recipes. For each food in the database, there is a food identification code (CN Code; also referred to as CNDB number or CND#), food category or GPC product code, description of the food, abbreviated description, set of measures or serving sizes (for most foods), and gram weight or milliliter amount for those measures. Brand owner names, brand names, GTIN, and product codes are also included, when provided by the manufacturer, for commercially prepared foods marketed and sold to school food service.

Food Description (FDES) Table

The **FOOD DESCRIPTION (FDES)** table contains both a complete description and an abbreviated description for each food item in the CNDB. For foods from manufacturers, the GTIN and brand owner name associated with the item are listed. Note for software developers, the GTIN field should be imported as a string, not as a numeric value, as it may contain leading zeros.

FOOD DESCRIPTION (FDES)		
Field Name	Type/Length	Description
Food Category Code	N 2*	Code for classifying food into a designated food category; used to link to Food Category Name table
GPC Product Code	A 8*	Global Product Classification (GPC) Code to classify food items obtained from GDSN through the Branded Foods; used to link to GPC Category Name table
Descriptor	A 255	Item description
Abbreviated Descriptor	A 60	Abbreviated Item description
CN Code	N 6*	A unique food item identifier; used to link data for the same food item between tables (also called CND# or CNDB Number)
Product Code	A 15	Item product code defined by the manufacturer
GTIN	A 255	Global Trade Item Number (GTIN); import as string, not numeric value
Brand Owner Name	A 80	Brand owner or manufacturer name
Brand Name	A 80	Brand name
FNS Material Number	A 6	FNS Material Code (also called WBSCM number or USDA Foods Material Code) for USDA Foods in Schools direct delivery items
Source Code	N 1	Specifies source of food item's data: <ol style="list-style-type: none"> 1. USDA FoodData Central - Standard Reference Legacy (SR Legacy) 2. FNS analysis of USDA standardized recipes for K-12 3. Food manufacturer data from GS1 GDSN through the USDA FoodData Central - Global Branded Food Products Database (Branded Foods) 4. FNS added sugars supplement
Date Added	D	Date record was added to the CNDB (mm/dd/yyyy)
Last Modified	D	Date record last updated (mm/dd/yyyy). For source code 3 items, the Last Modified date may be older than the Date Added. Last Modified is the most recent date that any data for this item was modified in Branded Foods.
Discontinued Date	D	For source code 3 items only, food product discontinued date as provided by the manufacturer in GS1 GDSN.

FOOD DESCRIPTION (FDES) continued

Field Name	Type/Length	Description
Form of Food	A 100	Designated primarily for items from the Branded Foods process: as purchased, as served, BAKE, BOIL, CONVECTION, FREEZE, HEAT_AND_SERVE, NONE, PREPARED, READY_TO_DRINK, READY_TO_EAT, STEAM, THAW, or UNPREPARED Note: “As purchased” food may require preparation before serving; “as served” food does not require additional preparation.
FDC ID Note: The FDC ID is intended for internal use only and should not be displayed to software users.	N 8	Food Data Central (FDC) ID; unique identifier for a source code 3 food item

Food Category Name (CTGNME) Table

The **FOOD CATEGORY NAME (CTGNME)** table contains the codes and descriptions for food categories assigned to foods in the FDES table.

FOOD CATEGORY NAME (CTGNME)

Field Name	Type/Length	Description
Food Category Code	N 2*	Code for classifying food into a designated food category
Category Description	A 100	Description of food category
Date Added	D	Date record was added to the CNDB (mm/dd/yyyy)
Last Modified	D	Date of last revision to the record (mm/dd/yyyy)

GPC Category Name (GPCNME) Table

The **GPC CATEGORY NAME (GPCNME)** table contains the codes and descriptions for food categories assigned to foods in the FDES table obtained from GDSN through the Branded Foods process. See: <https://www.gs1.org/standards/gpc>.

GPC CATEGORY NAME (GPCNME)

Field Name	Type/Length	Description
GPC Code	A 8*	Global Product Classification (GPC) Code; to classify food items obtained from GDSN through the Branded Foods process
GPC Description	A 100	Description of GPC category
Date Added	D	Date record was added to the CNDB (mm/dd/yyyy)
Last Modified	D	Date of last revision to the record (mm/dd/yyyy)

Weights (WGHT) Table

The **WEIGHTS (WGHT)** table contains measure or serving size information for specific foods. Gram weights or milliliter amounts are provided for all units of measure listed. Some foods have more than one unit of measure. Some foods in the FDES table do not have a corresponding unit of measure in the WGHT table.

WEIGHTS (WGHT)		
Field Name	Type/Length	Description
CN Code	N 6*	A unique food item identifier; used to link data for the same food item between tables
Weights Sequence Number	N 2*	Unique sequence number used to identify record
Amount	N 6.3	Measurement unit modifier (e.g. "1" in "1 cup")
Measure Description	A 100	Measurement unit description (e.g. cup, tablespoon, piece, etc.)
Unit Amount	N 8.2	Gram weight or milliliter amount of food item for the amount and measure description (serving size) provided
Type of Unit	A 2	Gram (g) or Milliliter (ml)
Source Code	N 1	Specifies source of measure/serving size information: <ol style="list-style-type: none"> 1. USDA FoodData Central - Standard Reference Legacy (SR Legacy) 2. FNS analysis of USDA standardized recipes for K-12 3. Food manufacturer data from GS1 GDSN through the USDA FoodData Central - Global Branded Food Products Database (Branded Foods)
Date Added	D	Date record was added to the CNDB (mm/dd/yyyy)
Last Modified	D	Date of last revision to the record (mm/dd/yyyy). For source code 3 items, the Last Modified date may be older than the Date Added. Last Modified is the most recent date that any data for this item was modified in Branded Foods.

CNDB Nutrient Data Tables

The **CNDB NUTRIENT** data tables consists of two tables: **NUTRIENT VALUES** and **NUTRIENT DESCRIPTION**.

Nutrient Values (NUTVAL) Table

The **NUTRIENT VALUES (NUTVAL)** table contains nutrient values for food items to be used in the nutrient analysis of menus and recipes in the school meal programs. All nutrient values are based on 100 grams (nutrients per 100 grams of the specified food item) or 100 milliliters (nutrients per 100 milliliters of the specified food item). If available, value type codes are included in the NUTVAL Table to describe the source of data for a nutrient.

Differentiating Between Nutrient Data Containing Zeros and Missing Data

Nutrient data represented by a zero means that the food item was tested for that nutrient, but there was no significant amount of that nutrient found in the food. For example, a value of zero for food energy (or calories) means that this food contains no calories. Values of zero are not to be interpreted as missing values or blanks; they must remain zeros.

While raw, unrounded data is preferred, food label (Nutrition Facts) data are provided for some items in the CNDB. Note that, if labeling values are used some very small values may have been rounded to zero according to Food and Drug Administration (FDA) rounding rules for food labels. For source code 3 items (Branded Foods items), if the manufacturer identified the nutrient value as “not a significant source of” then a value of zero is assigned to that nutrient if the manufacturer did not report a value (received as null or blank).

While nutrient data is required for saturated fat, calories, and sodium, missing nutrient values may exist for the other nutrients and are shown as blanks in the CNDB. Blank nutrient values should not be interpreted as zeros. Blank nutrient values should be interpreted and marked as missing values, for example, an asterisk with a footnote indicating that the nutrient value is missing. Additionally, any nutrient total containing a missing value must also be marked as including missing nutrient data. Use of a zero to represent a missing value is incorrect. Zeros must only be used for true zero values.

To ensure accessibility compliance with your approved software, we suggest using NULL, -9, or other commonly used placeholders to fill blanks. Then define this code near the top of the page where the data is presented. For more information on the government’s accessibility requirements, please see the [508 compliance website](#).

NUTRIENT VALUES (NUTVAL)

Field Name	Type/Length	Description
CN Code (or CNDB number)	N 6*	A unique food item identifier; used to link data for the same food item between tables
Nutrient Code	N 5*	Code used to identify a particular nutrient; used to link to Nutrient Description table
Nutrient Value	N 10.3	Value for nutrient
Per Unit	A 5	Nutrients per 100 grams (100g) or Nutrients per 100 milliliters (100ml)
Value Type Code Note: The Value Type Code is intended for internal use only and should not be displayed to software users.	N 3	Type of value (if available): <ol style="list-style-type: none"> 1. Analytical or derived from analytical 2. Calculated 3. Imputed 4. Assumed Zero 5. Assumed added sugars equal total sugars 6. Provided by the manufacturer 7. Aggregation of data 8. Provided by the manufacturer as "not a significant source of"
Source Code	N 1	Specifies source of nutrient values- <ol style="list-style-type: none"> 1. USDA FoodData Central - Standard Reference Legacy (SR Legacy) 2. FNS analysis of USDA standardized recipes for K-12 3. Food manufacturer data from GS1 GDSN through the USDA FoodData Central - Global Branded Food Products Database (Branded Foods) 4. FNS added sugars supplement
Date Added	D	Date record was added to the CNDB (mm/dd/yyyy).
Last Modified	D	Date of last revision to the record (mm/dd/yyyy). For source code 3 items, the Last Modified date may be older than the Date Added. Last Modified is the most recent date that any data for this item was modified in Branded Foods.

Nutrient Description (NUTDES) Table

The **NUTRIENT DESCRIPTION (NUTDES)** table contains the names and codes for nutrients included in the NUTVAL table.

NUTRIENT DESCRIPTION (NUTDES)

Field Name	Type/Length	Description
Nutrient Code	N 5*	Code used to identify a particular nutrient
Nutrient Description	A 30	Name of the nutrient
Nutrient Description (abbreviated)	A 5	Abbreviation for the nutrient
Nutrient Unit	A 7	Identifies the measure (calories, grams, milligrams, International Units, etc.) for the nutrient in the Nutrient Values file
Date Added	D	Date record was added to the CNDB (mm/dd/yyyy)
Last Modified	D	Date of last revision to the record (mm/dd/yyyy)