![USDA Food and Nutrition Service, U.S. Department of Agriculture]

CHILD NUTRITION DATABASE DOCUMENTATION

Child Nutrition Database, Release 27 (CN27) Version

April 2024

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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 (from FoodData Central); nutrient calculations for USDA Standardized Recipes created by USDA for school meal programs; and manufacturers' data for foods marketed and sold to school food service; including USDA Foods in Schools (commodity foods).

The Child Nutrition Database, Release 27 (CN27) 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.

For CN27, the database is available in the following file types: Comma-Separated Values (CSV), Excel, JavaScript Object Notation (JSON), SQL Server, My SQL, and Extensible Markup Language (XML). For My SQL, and SQL Server, one file will be provided for the entire database. For CSV, Excel, XML, and JSON, one file for each table will be provided for a total of six files for the complete database.

Only the Excel and CSV database files are available on the Food and Nutrition Service's (FNS) website, but all the file type options are available on the CNP Approved Nutrition Software PartnerWeb (SharePoint) site or upon request. For PartnerWeb access or file formats other than the Excel and CSV formats, please send your request to CNDB-Inbox@ usda.gov.

After the CN27 release, the SQL Server (MSSQL) and Excel file formats will no longer be provided.

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.

Status Field and Discontinued Items

With the CN27 release, the status field in the FDES table changed to a date format, was renamed Discontinued Date, and includes the discontinued date for source code 3 items. Food product data for items with a discontinued date will be removed from the CNDB after 1 year. The discontinued date may be used for data from additional source codes in the future.

With the CN27 release, the status field was removed from all other tables. Additionally, the status designations: active ("a") and discontinued ("d") will no longer be used in the CNDB.

Records marked as discontinued in CN26 have been removed from CN27.

Comments and Notes for the CN27 Release

Since CN25, the Child Nutrition Database (CNDB) obtains manufacturers' food product data from GS1 Global Data Synchronisation Network (GDSN) through the Global Branded Foods Products Database (Branded Foods) process. Nutrient data from USDA's Standard Reference (SR) Legacy database and USDA's Standardized Recipe collection is also included in the CNDB.

CN27 Release Notes

- A record with a date of 1/22/24 in the "Date_added" field is a new record in the CN27 release.
- A record with a date before 1/22/24 in the "Date_added" field and a date of 1/22/24 in the "Last_modified" field contains a modified value in one or more of its fields within the CN27 release or, for source code 3 items, in its record in GS1 GDSN.
- A record with a date in the "Discontinued Date" field is a discontinued record. An item and its associated data will be removed from the CNDB one year after the discontinued date. (Note that in CN27 some items have older discontinued dates because this is the first release using this process.)
- The following changes were made to CNDB Food Item Data Tables with the CN27 release:
  - The name of the FDES field "WBSCM #" was changed to "FNS Material Number".
  - The status field In the FDES table was changed to a date format and labeled as "Discontinued Date".
  - The status field was removed from the CTGNME, GPCNME, and WGHT tables.
  - The source code field was added to the WGHT table. The source code field will be blank for all items for CN27.
- The following changes were made to CNDB Nutrient Data Tables:
  - The status field was removed from the NUTVAL and NUTDES tables.
  - The source code field was added to the NUTVAL table. The source code field will be blank for all items for CN27.

Entire CNDB

- Total 225 new products added
- Total 1,858 modified products
- Total 38 products with discontinued dates

	FDES Data Table	WGHT Data Table	NUTVAL Data Table
New Records	225	225	4,275
Modified Records	1,858	355	16,514
Records with Discontinued Date	38	N/A	N/A

No SR Legacy (source code 1) records or USDA Standardized Recipe (source code 2) records were updated in the CNDB with this release.

Manufacturers' Data (Source code 3)

Updates for food items were received from 60 food manufacturers during the CN27 data collection. USDA Foods data is included with manufacturer's data in CN27.

Summary of manufacturers' products submitted by food companies during CN27 data collection:
- New Products: 225
- Modified Products: 1,858
- Products with Discontinued Dates: 38

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 commercially prepared foods obtained from manufacturers, the GTIN and brand owner name associated with the item are listed.

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
Product Code	A 15	Item product code defined by the manufacturer
GTIN	A 255	Global Trade Item Number (GTIN)
Brand Owner Name	A 80	Brand owner or manufacturer name
Brand Name	A 80	Brand name
FNS Material Number	A 6	**This is a field name change in CN27.** 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 nutrient values- • USDA National Nutrient Database for Standard Reference Legacy (1) • USDA Standardized Recipe calculation (2) • Food manufacturer (3)
Date Added	D	Date record was added to this table (mm/dd/yyyy)
Last Modified	D	Date of last revision to this record (mm/dd/yyyy)
Discontinued Date	D	Food product discontinued date as provided by the manufacturer in GS1 GDSN
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 food item from the Branded Foods Database

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.

<div align="center">FOOD CATEGORY NAME (CTGNME)</div>

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 this table (mm/dd/yyyy)
Last Modified	D	Date of last revision to this 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.

<div align="center">GPC CATEGORY NAME (GPCNME)</div>

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 this table (mm/dd/yyyy)
Last Modified	D	Date of last revision to this 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 nutrient values- • USDA National Nutrient Database for Standard Reference Legacy (1) • USDA Standardized Recipe calculation (2) • Food manufacturer (3) • In CN27, all WGHT source codes are blank.
Date Added	D	Date record was added to this table (mm/dd/yyyy)
Last modified	D	Date of last revision to this record (mm/dd/yyyy)

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 CNP. 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.

While nutrient data is required for saturated fat, calories, 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): Calculated from standardized school lunch recipe (0), Analytical or derived from analytical (1), Imputed (4), Value manufacturer based label claim for added nutrients (5), Aggregated data involving combinations of source codes 1 & 12 (6). Assumed zero (7), Calculated from nutrient label by NDL (8), Calculated by manufacturer, not adjusted or rounded for NLEA (9), Aggregated data involving comb. of codes other then 1, 12 or 6 (11), Manufacturer's analytical; partial documentation (12), Analytical data from the literature, partial documentation (13), Provided by manufacturer through the Global Branded Food Products Database (14).
Source Code	N 1	Specifies source of nutrient values- • USDA National Nutrient Database for Standard Reference Legacy (1) • USDA Standardized Recipe calculation (2) • Food manufacturer (3) • In CN27, all NUTVAL source codes are blank.
Date Added	D	Date record was added to this table (mm/dd/yyyy)
Last Modified	D	Date of last revision to this record (mm/dd/yyyy)

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 5	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 this table (mm/dd/yyyy)
Last Modified	D	Date of last revision to this record (mm/dd/yyyy)

Archive of Comments and Notes from Previous Release

CN26 Release

- A record with a date on or after 5/27/232 in the "Date_added" field is a new record in the CN26 release.
- A record with a date before 5/27/23 in the "Date_added" field <u>and</u> a date on or after 5/27/23 in the "Last_modified" field contains a modified value in one or more of its fields within the CN26 release.
- A record with a "d" value in the "Status" field is a discontinued record.
- The following changes were made to CNDB Food Item Data Tables with the CN26 release:
  - The name of the FDES field "Commodity or Recipe Code" was changed to "WBSCM #".
- The following changes were made to CNDB Nutrient Data Tables:

Entire CNDB
- Total 938 new products added
- Total 1,030 modified active products
- Total 1,465 discontinued products

27 USDA Standardized Recipe and 521 Manufacturers' products marked "d" in CN25 were removed from CN26. No Standard Reference Legacy or USDA Foods products were marked "d" in CN25, so none were removed from CN26.

Standard Reference (SR) Legacy Data
Summary of SR Legacy records updated in the CNDB with this release:

	FDES Data Table	WGHT Data Table	NUTVAL Data Table
New Records	0	0	0
Modified Records	1	2	19
Discontinued Records	0	0	0

USDA Standardized Recipe Data
Summary of USDA Standardized Recipe records updated in the CNDB with this release:

	FDES Data Table	WGHT Data Table	NUTVAL Data Table
New Records	0	0	0
Modified Records	0	0	0
Discontinued Records	0	0	0

Manufacturers' Data
Updates for food items were received from 185 food manufacturers during the CN26 data collection.

Summary of manufacturers' products submitted by food companies during CN26 data collection:
- New Products: 938
- Modified Products: 1,029
- Discontinued Products: 1,328

Summary of Manufacturers' records updated in the CNDB with this release:

	FDES Data Table	WGHT Data Table	NUTVAL Data Table
New Records	938	938	17,822

	FDES Data Table	WGHT Data Table	NUTVAL Data Table
Modified Records	1,029	484	19,551
Discontinued Records	1,328	1,199	25,232

Summary of USDA Foods records updated in the CNDB with this release:

	FDES Data Table	WGHT Data Table	NUTVAL Data Table
New Records	0	0	0
Modified Records	0	0	0
Discontinued Records	137	149	2,603