Factored Food Vocabulary

The Bureau of Foods' Factored Food Vocabulary (FFV) provides a method of naming and classifying food products for use in information retrieval systems. It is designed to serve the Bureau's data collecting interests, which require a vocabulary that describes those characteristics of food products which affect the safety or nutritional values of the foods. Each characteristic, such as product type, food source, part of animal or plant, physical state, shape or form, etc., is a factor in the description of the food product. Each factor has a set of values (descriptors) and by using one or more of these values the characteristic is precisely identified.

A food product is assigned a set of factor values, one (or more) for each factor. Searching is performed on individual factor values or Boolean combinations in order to retrieve the food products indexed under these factor terms. Factor values and food product names may be assigned codes for information processing. However, no hierarchy is built into these codes and they are used only for internal processing.

The factoring approach was selected by the Bureau for several reasons:

1. **Flexibility with specificity.** Separation of classificatory concepts into their elements (factors) permits these elements to
be used individually as retrieval terms whenever appropriate or, conversely, to be omitted if they are not needed. Traditional food classifications, for instance, tend to subdivide by product groups in a manner that widely separates products from a single source (e.g., corn meal, corn oil, corn gluten). Because FFV has factors for both product type and food source, it is possible to retrieve each one independently of the other.

(2) Enhanced searchability with economy. Each factor value, being a fragment of a product description, may be used with any other appropriate factor value to describe a food product. Yet each factor value is stored only once in the vocabulary. The potential number of combinations thus provided greatly increases the number of access points available for searching while maintaining a compact vocabulary.

(3) Ease of change and updating. The vocabulary is maintained as a computerized file which can be updated readily. Changes made for new information or correction of errors are available to indexers and searchers speedily but they do not alter any product names or codes assigned in other files. Hierarchic displays are generated on the basis of broader-narrower term relationships between factor values.

The following material describing the structure of FFV is excerpted from a manual being developed for the use of the vocabulary.

28 January 1983
Chapter 2. The Structure of the Factored Food Vocabulary

The Factored Food Vocabulary provides a standardized language for the description of food products from the points of view that are of interest to the Bureau. Its structure is based on two main ideas:

(1) A food product can be described by a combination of several characteristics, each of which may serve as a retrieval term, or descriptor, for the food product.

(2) The characteristics can be brought together in a meaningful classification relating them to each other.

2.1 Describing food products by a combination of several characteristics

Consider the food product textured vegetable protein, derived from soybean meal, colored with caramel coloring, and encased in a plastic bag. It might be of interest to several Bureau programs from different points of view as listed below:

<table>
<thead>
<tr>
<th>Program</th>
<th>Data needed</th>
<th>Common characteristic of food products to be retrieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>All soy products</td>
<td>Product has a specific plant as its sole source or its principal component or ingredient.</td>
</tr>
<tr>
<td>Food Safety</td>
<td>All products not fully cooked</td>
<td>Product is specified as being partially cooked, as distinguished from fully cooked.</td>
</tr>
<tr>
<td>Filth Contamination</td>
<td>All flour or meal</td>
<td>Product has a designated physical form or state and is a grain or starch product.</td>
</tr>
<tr>
<td>Industrial Chemicals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Food Additives</td>
<td>All products with colors added</td>
<td>Product is characterized by the addition of a specific ingredient.</td>
</tr>
<tr>
<td>Indirect Food Additives</td>
<td>All products packaged in plastic film</td>
<td>Product has a specified container and food contact surface.</td>
</tr>
</tbody>
</table>

As can be seen from this example, food product characteristics can be arrayed from various viewpoints, such as:

A. Product type
B. Food ingredient
C. Physical state, shape or form
D. Processing operations
E. Packaging
F. User group
G. Establishment
We call each viewpoint a factor and the characteristics under it factor values or factor terms. The factors included in the vocabulary were selected for their importance to Bureau programs. They are listed in more detail in Figure 2/1 and illustrated through the examples in Figure 2/2.

The sequence of factors was chosen to facilitate writing and reading food product descriptions, and also to aid in comprehension of the vocabulary. After characterizing the food product as a whole, the factor sequence follows stages of manufacturing and consumption. Each factor answers a question.

? To what general group does the product belong?

This question is answered by the appropriate factor value from A Product type.

? What is the product made of?

A food or ingredient can be specified by an appropriate combination of factor values from B1 Food source and B2 Part of plant or animal. In a very complete product description all ingredients can be specified; in a simplified product description only the first ingredient is specified.

? What are the physical characteristics of the food?

A term from C Physical state, shape or form is used to answer this question. For many foods, the physical characteristics are inherent and not the result of processing, except perhaps separating the part (e.g., oil - liquid; apple - whole, natural shape). Sometimes there is only one processing step, changing the physical form, e.g., flour - finely ground. Sometimes changing the physical form is the first processing step, e.g., cut green beans, cooked. However in other cases, particularly with highly processed foods, forming is a final process.

? What processing operations have been performed to transform the food or ingredients to the final product?

The factors primarily concerned with processing are D1 Preparation steps performed, D2 Treatment applied, and D3 Preservation method. In addition preliminary processing may be implied by B1 Part of plant or animal (e.g., hulling or extracting) and by C Physical state, shape or form (e.g., divided or disintegrated).

? How is the product packaged?

One aspect of packaging is E1 Packing medium; the other aspect is the container. Container description is simplified to consist only of E2 Container, wrapping and E3 Food contact surface.

? Who uses the food product?

This question is answered by the appropriate term from F User group.

? Who manufactures or handles the product?

This information, if needed, would be answered by G Establishment.
Figure 2/1. Factors for the description of food products.

A Product type

Derived from a combination of consumption, functional and manufacturing characteristics.

B Food ingredient

B1 Food source

Variety of plant or animal, or chemical food source.

B2 Part of plant of animal

C Physical state, shape or form

D Processing operations

D1 Degree of preparation

Not cooked, raw, partially cooked, fully cooked.

D2 Treatment applied

Additional processing steps, including adding, substituting, or removing component.

D3 Preservation method

Primary preservation method.

E Packaging

E1 Packing medium

E2 Container, wrapping

Container material, form, and possibly other characteristics, e.g., Glass container with aluminum lid.

E3 Food contact surface

The primary surface with which the food is in contact.

F User group

Human or animal; dietary characteristics.

G Establishment

Manufacturing, retail, storage/handling, food service.
Figure 2/2. Assignment of factor terms.

<table>
<thead>
<tr>
<th>Food Product Name</th>
<th>Factor Term Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Frozen vegetables</td>
<td>Vegetable or vegetable product</td>
</tr>
<tr>
<td>Frozen leafy vegetables</td>
<td>Vegetable or vegetable product</td>
</tr>
<tr>
<td>Quick frozen leafy vegetables</td>
<td>Vegetable or vegetable product</td>
</tr>
<tr>
<td>Quick frozen spinach</td>
<td>Vegetable or vegetable product</td>
</tr>
<tr>
<td>Quick frozen cut spinach in cardboard box</td>
<td>Vegetable or vegetable product</td>
</tr>
</tbody>
</table>
The list of specifying factors included in the vocabulary is limited. For example, under *Product type* ethnic characteristics are not considered. *Bl Food source* makes no provision for age or maturity; there is no distinction between beef liver and calf liver. Physical state and physical shape or form are combined into one factor. Many aspects of *B2 Container, wrapping* are not considered as separate factors. Due to its flexible structure the vocabulary could easily be amended to take into account these and other characteristics.

The specificity of the vocabulary is also limited. For example, *Bl Food source* does not include plant cultivars and animal breeds. The species term must be used. *B2 Part of plant or animal* does not include specific cuts of meat. *B3 Preservation methods* does not include specific antimicrobial agents or enzyme inhibitors. Specific terms can easily be filled into the hierarchical structure.

The basic food vocabulary consists only of factor terms. These are used to build food product descriptions as shown in Figure 2/2. This structure serves test the purposes outlined in chapter 1. However, the vocabulary has been extended by including a number of food product names to which factor terms were assigned. These food product names are called precombined terms (PCT). A precombined term is included for either of these reasons:

1. It explains or illustrates the use of the factor, e.g., *corned beef hash* as an example of semisolid with discrete particles.

2. It is difficult to derive the proper combination.

### 2.2 Hierarchy

Equally as important as the identification of meaningful characteristics is the objective of structuring the selected terms so that information can be retrieved from any point of view. In a particular search one might be interested in all products where peanut is the food source. In another, one might need all products where any nut is the food source. Or one might search specifically for *Vitamin A added*, more broadly for *Vitamins added* or, still more broadly, for *Nutrients and/or dietary supplements added*. These are all examples of hierarchical relationships among factor values. Hierarchical relationships are extremely important for searching. Hierarchy is also a useful tool for displaying the vocabulary in a logical way so that it can be easily comprehended by both searcher and indexer.

For these reasons a hierarchical structure was developed for each factor. Care was taken to include all useful hierarchical relationships. Corresponding to its many uses, for instance, *field corn* appears under many broader terms:

- under *Grain*
- under *Plant used for producing starch*
- under *Plant used for producing sugar*
- and under *Plant used for producing oil or fat*

Broad terms can be used to describe the very general groups of food products, such as frozen vegetables. Such a general description can be made more specific by
using narrower terms and/or adding terms from additional factors, as seen in Figure 2/2.

The hierarchical relationships are complemented by additional cross-references among factor terms, e.g., Plant used for producing protein extract or concentrate -

<table>
<thead>
<tr>
<th>Narrower term</th>
<th>Related term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa</td>
<td>Field corn</td>
</tr>
<tr>
<td>Soybean</td>
<td>Sesame</td>
</tr>
</tbody>
</table>

This indicates that a searcher looking for plant protein sources should look under field corn and sesame in addition to alfalfa and soybean if the search is to be very thorough.

2.3 **Scope notes**

The language of the food field is not always precise. Moreover, a factored vocabulary contains many general terms that require definition. Therefore many terms have scope notes in order to achieve consistency in indexing and searching and, perhaps more importantly, to achieve the purpose of a common language for the description of foods.

If the explanatory material was taken from another source, this is noted. Often a scope note refers to a fuller definition, for example, in the Code of Federal Regulations (21 CFR Pts. 1-69).

The scope notes given in this vocabulary are not in any sense legal definitions; legal definitions are stipulated in CFR. The terms in this vocabulary must cover both standardized and nonstandardized foods; therefore the scope note is often broader than the corresponding definition in CFR.

2.4 **Lead-in vocabulary (entry vocabulary)**

For many of the factor terms in the vocabulary there exist synonyms. For the guidance of indexers and searchers these synonyms have been included in the lead-in vocabulary. They appear in the alphabetical lists with references to the terms to be used (e.g., Butterfat, *use* Milkfat).

2.5 **Vocabulary displays**

The vocabulary can be displayed in a variety of formats, as appropriate for specific purposes:

(1) **Hierarchical (classified) displays**

These displays show the logical structure of the vocabulary. They present this structure in varying levels of detail, from a very broad overview to a massive display giving every detail.

(1.1) **Summary outline**

A listing of the twelve factor headings.
(1.2) Detailed outline

A listing of the factor headings and important subordinate terms. This display provides a fuller overview of the conceptual structure of the vocabulary.

(1.3) Full hierarchy, factor terms only

This display is used, in conjunction with the alphabetical index, for indexing and query formulation. It can be used as a checklist to identify all factor terms applicable to the product or query at hand. It can also be used to view factor terms identified through the alphabetic index in their logical context. This display can be tailored for the specific application at hand.

(1.4) Full hierarchy, factor value and precombined terms (supertree)

This display is consulted when further clarification about the use of a factor value is needed. It gives for each factor value the precombined terms of which the factor value is a component.

(2) Alphabetical lists

The alphabetical lists include factor values, lead-in terms, and precombined terms in one alphabetic array. Broader, narrower and related terms and scope notes may also be included.

(3) Display of precombined descriptors

This display gives the factor values for selected precombined terms in a columnar array. It is useful to explain the vocabulary structure.
Illustrations:

I. Vocabulary displays from FFV
   a. Summary outline (1.1)
   b. Detailed outline (1.2)
   c. Factor values and precombined terms (supertree) (1.4)
   d. Alphabetic list with scope notes and entry terms (2)

II. Sample of FFV used in a computerized information system
    (Total Diet Study)
TECHNICAL OPERATIONS STAFF
BUREAU OF FOODS
FOOD & DRUG ADMINISTRATION
WASHINGTON, D.C.

FACTORED FOOD VOCABULARY

PART 1. FDA FOOD FACTORS WITH THEIR DEFINITIONS AND PRINCIPAL CATEGORIES

PART 2. HIERARCHIC LIST OF FACTOR VALUES

A. PRODUCT TYPE PAGE 1
B1. FOOD SOURCE PAGE 18
B2. PART OF PLANT OR ANIMAL PAGE 51
C. PHYSICAL STATE: SHAPE OR FORM PAGE 65
D1. DEGREE OF PREPARATION PAGE 75
D2. TREATMENT APPLIED PAGE 76
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E1. PACKING MEDIUM PAGE 90
E2. CONTAINER OR WRAPPING PAGE 92
E3. FOOD CONTACT SURFACE PAGE 95
F. USER GROUP PAGE 97
G. ESTABLISHMENT PAGE 98

Ia. SUMMARY OUTLINE (1.1)
A. PRODUCT TYPE

SN FOOD DICTIONARY—FOOD GROUP HAVING COMMON CONSUMPTION, FUNCTIONAL OR MANUFACTURING CHARACTERISTICS, E.G., FRUIT OR VEGETABLE PRODUCT, DAIRY PRODUCT, CONFECTIONERY, PREPARED FOOD.

NT: BEVERAGE: CACAO OR CHOCOLATE PRODUCT; CHEWING GUM; COLOR ADDITIVE; CONFECTIONERY; DAIRY PRODUCT; DRESSING; CONDIMENT; GRAVY OR SAUCE; EGG OR EGG PRODUCT; FOOD ADDITIVE; FRUIT OR VEGETABLE PRODUCT; GRAIN OR STARCH PRODUCT; NUT OR NUT PRODUCT; REFINED OR PARTIALLY-REFINED FOOD PRODUCT; SNACK FOOD; SWEETENER; MEAT; POULTRY; SEAFOOD OR RELATED PRODUCT; PREPARED FOOD PRODUCT; PRODUCT TYPE; OTHER; GLAZE; FLAVORING OR SEASONING

B1. FOOD SOURCE

SN FOOD DICTIONARY—INDIVIDUAL PLANT OR ANIMAL FROM WHICH THE FOOD PRODUCT OR ITS MAJOR INGREDIENT IS DERIVED. ALSO: CHEMICAL FOOD SOURCE.

NT: ANIMAL USED AS FOOD SOURCE; MICROORGANISM USED AS FOOD SOURCE; PLANT USED AS FOOD SOURCE; FOOD SOURCE NOT KNOWN; CHEMICAL FOOD SOURCE

B2. PART OF PLANT OR ANIMAL

SN FOOD DICTIONARY—ANATOMICAL PART OF PLANT OR ANIMAL WHICH IS USED; E.G., ROOT; LEAF; FRUIT; ORGAN MEAT; MILK OR EGG. ALSO INCLUDES COMPONENTS OF PARTS, SUCH AS JUICE; AND EXTRACTS, CONCENTRATES OR ISOLATES, SUCH AS PROTEIN EXTRACT OR SUGAR. THE WHOLE PLANT OR WHOLE ANIMAL MAY ALSO BE SPECIFIED IN THIS FACTOR.

NT: EXTRACT; CONCENTRATE OR ISOLATE OF PLANT OR ANIMAL; PART OF ANIMAL; PART OF MICROORGANISM; PART OF PLANT; PART OF PLANT OR ANIMAL NOT APPLICABLE; PART OF PLANT OR ANIMAL NOT KNOWN

C. PHYSICAL STATE, SHAPE OR FORM
SN FOOD DICTIONARY--THE PHYSICAL STATE OF THE FOOD
PRODUCT IF IT IS LIQUID, SEMIQUID OR SEMISOLID
THE PHYSICAL SHAPE OR FORM OF THE FOOD PRODUCT IF IT
IS SOLID OR CONSISTS OF SOLID PARTS.

NT : PHYSICAL STATE : PHYSICAL SHAPE OR FORM

D1. DEGREE OF PREPARATION

SN FOOD DICTIONARY--USED TO BROADLY CHARACTERIZE A FOOD
PRODUCT BASED ON THE PREPARATION STEPS PERFORMED TO
READY IT FOR CONSUMPTION. SPECIFICS OF PREPARATION
ARE COVERED BY *D2. TREATMENT APPLIED*.

NT : DEGREE OF COOKING : FORMULATED MIX : DEGREE OF
PREPARATION NOT KNOWN

D2. TREATMENT APPLIED

SN FOOD DICTIONARY--USED TO SPECIFICALLY CHARACTERIZE A
FOOD PRODUCT BASED ON THE TREATMENTS OR PROCESSES
APPLIED. MULTIPLE VALUES MAY BE ASSIGNED.

NT : COMPONENT REMOVED : COMPONENT SUBSTITUTED : FOOD
MODIFIED : INGREDIENT OR FOOD ADDED : TREATMENT NOT
APPLIED : NO TREATMENT APPLIED : TREATMENT APPLIED
NOT KNOWN : WATER ADDED OR REMOVED

D3. PRESERVATION METHOD

SN FOOD DICTIONARY--THE PRIMARY METHOD USED FOR THE
PREVENTION OF MICROBIAL OR ENZYMATIC SPOILAGE.

NT : HIERATIZED : NO PRESERVATION METHOD USED
: PRESERVED BY COLD : PRESERVED BY FERMENTATION
: PRESERVED BY FILTRATION : PRESERVED BY THERMAL
: PRESERVED BY STORAGE IN MODIFIED
: PRESERVED BY STORING IN A MODIFIED
: PRESERVED BY OTHER METHOD : PRESERVED BY CHEMICALS
: DEHYDRATED OR DRIED

PAGE 2
E1. PACKING MEDIUM

SN FOOD DICTIONARY--THE MEDIUM IN WHICH THE FOOD IS
PACKED FOR PRESERVATION AND HANDLING AND/OR FOR
PALATABILITY AND CONSUMER APPEAL. IF THERE ARE
SEVERAL PACKING MEDIA (E.g., BEANS PACKED IN WATER
WITH NITROGEN IN THE HEAD SPACE), THE PREDOMINANT
MEDIUM IS USED.

NT: PACKED IN GAS OTHER THAN AIR: NO PACKING MEDIUM
USED: PACKING MEDIUM NOT KNOWN: PACKING MEDIUM,
OTHER: VACUUM-PACKED: PACKED IN EDIBLE MEDIUM

E2. CONTAINER OR WRAPPING

SN FOOD DICTIONARY--CONTAINER TYPE DEFINED BY THE MAIN
CONTAINER MATERIAL, THE CONTAINER FORM, AND THE
MATERIAL OF THE LINER, LID AND LINING.

NT: GLASS CONTAINER: LAMINATE CONTAINER: METAL
CONTAINER: PLASTIC CONTAINER: TEXTILE OR FABRIC
CONTAINER: WOOD CONTAINER: CERAMIC OR EARTHENWARE
WHOSE CONTENTS ARE PACKED IN PAPER CONTAINER: CONTAINER ON
WRAPPING NOT KNOWN: NO CONTAINER OR WRAPPING USED
OTHER: CONTAINER OR WRAPPING, OTHER

E3. FOOD CONTACT SURFACE

SN FOOD DICTIONARY--THE SPECIFIC CONTAINER MATERIALS IN
DIRECT CONTACT WITH THE FOOD. VALUES ARE ASSIGNED
FOR EACH SUCH MATERIAL.

NT: COATING ENAMEL: CERAMIC: FIBERBOARD OR PAPER
GLASS: METAL: TEXTILE OR FABRIC: WOOD: CORK
PLASTIC: WAX: FOOD CONTACT SURFACE NOT KNOWN
NO FOOD CONTACT SURFACE PRESENT: FOOD CONTACT
SURFACE, OTHER

F. USER GROUP

SN FOOD DICTIONARY--USER GROUP, HUMAN OR ANIMAL, FOR
WHICH THE FOOD IS PRODUCED AND MARKETED.
G. ESTABLISHMENT

SN FOOD DICTIONARY--NOT DEVELOPED.

NT.: FOOD SERVICE ESTABLISHMENT; MANUFACTURING ESTABLISHMENT; RETAIL ESTABLISHMENT; STORAGE AND HANDLING ESTABLISHMENT OR FACILITY
FDA FOODS DICTIONARY
TREE STRUCTURE

A. PRODUCT TYPE
   DAIRY PRODUCT
      MILK OR MILK PRODUCT
         (PCT) CREAM, WHIPPED
         (PCT) EGG NOG
         (PCT) EVAPORATED FILLED MILK
         (PCT) HALF AND HALF
         (PCT) INFANT FORMULA
         (PCT) LOW FAT MILK
         (PCT) Malted Milk
         (PCT) NONFAT DRY MILK
         (PCT) RECONSTITUTED MILK
         (PCT) RENOVATED BUTTER
         (PCT) SKIM MILK
         (PCT) SWEET CREAM BUTTER, SALTED
         (PCT) SWEET CREAM BUTTER, UNSALTED
         (PCT) TABLE CREAM
         (PCT) WHIPPING CREAM, PRESSURIZED
         (PCT) WHOLE MILK
         CULTURED MILK PRODUCT
            (PCT) ACIDOPHILUS MILK
            (PCT) BUTTERMILK, CULTURED
            (PCT) SOUR CREAM
            (PCT) YOGURT
      MILK OR MILK PRODUCT ANALOG
         CREAM PRODUCT ANALOG
            (PCT) IMITATION SOUR CREAM
            (PCT) NON-DAIRY COFFEE WHITENER
            (PCT) NON-DAIRY TOPPING, PRESSURIZED
            (PCT) NON-DAIRY-WHIPPED TOPPING
      MARGARINE
            (PCT) MARGARINE, CORN OIL, REGULAR
            (PCT) MARGARINE, SOFT
            (PCT) MARGARINE, VEGETABLE OIL, REGULAR
            (PCT) MARGARINE, WHIPPED

PAGE 7
D2. TREATMENT APPLIED

INGREDIENT OR FOOD ADDED

FLAVORING OR TASTE INGREDIENT ADDED

SWEETENED WITH NUTRITIVE SWEETENER

SWEETENED WITH SUGAR

(PCT) PUMPKIN PIE
(PCT) SOYLAC
(PCT) TOMATO BISQUE
(PCT) WAFFLE

DEXYROSE ADDED

CORN SYRUP ADDED

(PCT) APPLE SAUCE
(PCT) MARASCHINO CHERRY, COLORED
(PCT) SOY SAUCE

FRUCTOSE ADDED

HONEY ADDED

INVERT SUGAR ADDED

HYDROLYZED CEREAL SOLIDS ADDED

LACTOSE ADDED

(PCT) INFANT FORMULA

MALTOSE ADDED

SUCROSE ADDED

(PCT) CHARTREUSE

MOLASSES ADDED

FOOD ADDED

CHOCOLATE OR COCOA ADDED

(PCT) CHOCOLATE CAKE, WHOLE
(PCT) CHOCOLATE CHIP COOKIE (TOLL-HOUSE)
(PCT) CHOCOLATE MILK
(PCT) CHOCOLATE-COVERED CARAMEL
(PCT) CHOCOLATE-COVERED RAISIN
(PCT) INJNAT COCOA MIX
(PCT) MILK CHOCOLATE AND VEGETABLE FAT
(PCT) MILK CHOCOLATE BAR, HERSHEY'S, 1 OZ.

DAIRY PRODUCT ADDED

CHEESE ADDED

(PCT) CHEESE SAUCE
D2. TREATMENT APPLIED

INGREDIENT OR FOOD ADDED
FOOD ADDED
NUT OR SEED ADDED
PEANUT OR PEANUT BUTTER ADDED
POULTRY ADDED
(PCT) CHICKEN POT PIE
SEAFOOD ADDED
VEGETABLE ADDED
(PCT) BEEF STEW, CANNED
(PCT) CHICKEN POT PIE
(PCT) CHILI CON CARNE
(PCT) CORNED BEEF HASH
(PCT) EGG ROLL
(PCT) VEGETABLE EGG NOODLE
(PCT) VEGETABLE SOUP
MUSHROOM ADDED
NUTRIENTS AND/OR DIETARY SUPPLEMENTS ADDED
AMINO ACIDS ADDED
ENRICHED
(PCT) ENRICHED FLOUR
(PCT) ENRICHED RICE
FORTIFIED
MINERALS ADDED
(PCT) INFANT FORMULA
CALCIUM ADDED
IODIZED
IRON ADDED
PHOSPHORUS ADDED
SODIUM ADDED
PROTEIN ADDED
GELATIN ADDED
SOY PROTEIN ADDED
VITAMINS ADDED
(PCT) INFANT FORMULA
VITAMIN A ADDED
**FDA DICTIONARY: TOTAL DIET STUDY**

**FACTOR VERIFICATION REPORT**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>N10844</td>
<td>Red Bean, Rolled from Dried</td>
</tr>
<tr>
<td>N10850</td>
<td>Rice, White, Enriched, Cooked</td>
</tr>
<tr>
<td>N10859</td>
<td>Roll, White, Soft, Enriched, Commercial</td>
</tr>
<tr>
<td>N101a3</td>
<td>Salad Dressing, Italian, Holified, Commercial</td>
</tr>
<tr>
<td>N10030</td>
<td>Salami, Lunch Meat Type (Regular, Not Hard)</td>
</tr>
</tbody>
</table>

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**II. FFV USED IN COMPUTERIZED INFORMATION SYSTEM (TOTAL DIET STUDY)**