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Guideline notes for preparing and exporting food composition data according to the common formats of export files

Prepared by

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These guideline notes were produced as part of the EPIC Nutrient DataBase (ENDB) project coordinated by IARC. Although dated 15 September 2003, this version has further amendments and is the latest set circulated on 13 November 2003 to compilers supplying export files to IARC. This version also incorporates method headlines added later on in the Annex 8 table, on compilers' request.

Title-page for EuroFIR use added 8 February 2006

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GUIDELINE NOTES FOR PREPARING AND EXPORTING FOOD COMPOSITION DATA ACCORDING TO THE COMMON FORMATS OF EXPORT FILES ....ERROR! BOOKMARK NOT DEFINED.

Reference for link between methods and specific components : see “MetCompLinks.xls” file

Introduction

In this document, the common format and the related recommendations for preparing and exporting food composition data from national food composition databases is described. The file format relates directly to and follows as closely as possible that contained in the COST Action 99 - Eurofoods Recommendations for data interchange and data management[1].
The information that is asked in the eight formatted files (plus two files specific for the EPIC project) corresponds to the maximum of information that exists in most food composition databases and which is important in the process of evaluation and standardisation of national food composition databases.

The nutrients to be covered in the interchange files are described in Annex 3. This Interchange Guidelines document should be used in parallel with the 'Documentation for the standardisation of ENDB first priority nutrients' and 'Guidelines for the target documentation of ENDB first priority nutrients' guideline documents, to know in detail how nutrients should be documented. Thus, note that for nutrients where all analytical methods give comparable results, no method headline is required, whatever the method type (which is still mandatory).

The use of this present document to send the Interchange national documentation files may vary according to each country-specific situation (only use the files to add new foods or new values, use the files to send further data, correct the formerly sent data sets, only document data through the ENMan software…): communication with each compiler is needed to clarify the country-specific process.

File format

Eight files should be prepared for interchanging source, food items, food classification, components, values (3 files) and publications contained in the national food composition databases of participating countries. A ninth file links foods from national food composition databases to EPIC foods. A tenth file links national publication codes to EPIC publication codes for commonly cited food composition tables.

Each file contains a number of fields, some of which are mandatory. These are marked by 'M' in the priority column of each file description and should never be left blank. However most optional fields need only to be completed if the information is readily available and can be shared. If problems arise in completing any mandatory field, the receiver (EPIC, Lyon) should be contacted to solve the problem.

Normally, component values and other numerical values should use decimal points (and not commas) in the interchange files. Text fields should not contain any carriage return or tabulation. Furthermore, except for the various 'REMARKS' fields, text fields are limited to 255 characters as a maximum length. Codes taken from the Annexes or other standards should be in the form they appear, upper- or lowercase as listed. The files should be sent to the receiver (EPIC, Lyon) as tab delimited ASCII text files. This means that the fields in each line of the file should be separated by tabs. The use of delimiter other than a tab should be clearly stated by the sender, as should the use of decimal commas rather than decimal points.

[1] SCHLOTKE F., BECKER W., IRELAND J., MØLLER A., OVASKAINEN M.L., MONSPART J., UNWIN I. (2000) *EUROFOODS Recommendations for Food Composition Database Management and Data Interchange*. European Commission, COST report EUR 19538

If information for any field is missing, the separating tabs of these fields must be inserted in order to maintain the format. Be careful not to treat consecutive delimiters as one, and vice-versa, e.g. if there are 3 consecutive empty fields, there must be 3 tabs (see examples below).
Note: Because the tab character is not printable, the tab delimiter is indicated as '<tab>' in the examples of the present document.

The Interchange files

In the following, a thorough description of the interchange files needed to document national food composition databases is presented.

FILE 1: SOURCE OF THE INTERCHANGE FILES

This file (SOURCE.txt) is a definition file referencing the source of the interchange files, e.g. the sender of the national database. By default, each compiler should fill in the SOURCE file with only one source, i.e. his (her) own national ID (see Annex 1 for the source identification codes). The source identification (SOURCEID) is unique in the file set. In the cases when a compiler wishes to send data from another source for which the responsibility lies with another person, a different SOURCEID should be used. Procedures for applying new source identification are described in Annex 1.

The fields are:

Field label	Prio	Scope Note
SOURCEID	M	Source identification code (see Annex 1)
SRCENAME	M	Source name, e.g. name of the country database
ACQTYPE	M	Acquisition type following the COST99 Recommendations (see Annex 2). Acquisition type is 'F' for all food composition databases.
SENDER	M	Sender of the source i.e. organisation or person that sent the interchange package
RESPONSIB	M	Responsibility of the source i.e. organisation or person that is responsible for the content of the data source (may be the same as the sender)
COMPLANG	M	Compilation language, used for the 'original language' fields of the interchange package, according to ISO 639 (see Annex 11)
SENTDATE	M	Date the interchange package is sent (format of this field is YYYY-MM-DD)
LEGAREST		Legal restrictions, i.e. note any legal (copyright, disclaimer) or scientific restrictions imposed on the data
QUALASSM		Quality assessment, i.e. how the Quality Index (applied to nutrient values) is defined by the data provider. Different modalities should be announced by a ':' character and should be delimited by a '/' character.
REMARKS		Any further remarks

Example

FR1<tab>CIQUAL<tab>F<tab>J. Ireland, AFSSA-Ciqual<tab>J. Ireland, AFSSA-Ciqual<tab>fr<tab>2000-09-16<tab>The French food composition table is copyright protected<tab>A : good / B : medium / C : uncertain<tab>blabla; bla bla bla

FILE 2: DEFINITION OF FOOD ITEMS

This file (FOOD.txt) is a definition file listing all the food identification codes used in the complete data set. The fields are:

Field label	Prio	Scope Note
SOURCEID	M	Source identification code (link to the 'SOURCE.txt' file)
ORIGFDCD	M	Original food code, ID or abbreviation used to identify the food in the original food composition database or publication. This code is unique. If the identifier is a line number in a printed table, this code should be presented as a combination of identifier for publication plus line number, in order to avoid duplicates.
ORIGGPCD	M	Original food group code (i.e. classification) used in the original dataset (link to the 'CLASSIF.txt' file)
ENGFDNAM	M	English name of the food given in the original dataset. If no English translation is specific enough, the more general English term is followed by a space and a colon (:) and the term in the local language that identifies the specific food (e.g. "Salami : felinetti"). The food's ENGFDNAM text should be unique within the dataset.
ORIGFDNM	M	Original food name given in the original dataset
REMARKS		Attached notes, comments, i.e. any further remarks. E.g. fortification
NCF	M*	Nitrogen to protein conversion factor
FACF	M*	Fatty acid conversion factor
DEN	*	Density of the food, required if any values for the food are expressed per volume measure of the food, as some FCT do for alcoholic beverages.
EDIBLE	*	Edible proportion of the food (between 0 and 1), required if any values for the food are expressed per gram of the total food
FOODDESC		Overall description of the food, including overall sample description (as in UK table)
ORIGIN		Animal / Plant origin of the food; (see Annex 12)

* : The fields NCF, FACF, DEN and EDIBLE may be included as component values, but appear here for the reason that some national databases do not regard these fields as components, but rather as food descriptors. Do report NCF, FACF, DEN and EDIBLE consistently either at the food or the component level (not at both) for all foods.

Note on Edible proportion: The 'edible proportion' is defined as (1 – waste): 1 where waste is the proportion taken away from the total food weight before analysing the edible part of the food.

Example

DK1<tab>735<tab>0110<tab>Milk, skimmed, with chocolate (UHT)<tab>Cacao skummetmælk (UHT)<tab><tab>6.25<tab>0.95<tab>1<tab>1<tab><tab>A

FILE 2.1: EXTRA DEFINITION OF FOOD NAMES

The file (FOODNAM.txt) is an **optional** file. It is a definition file listing extra food names used in the complete data set. It is a complementary file and should be used if the compiler wishes to include additional names, taxonomic names or synonyms, for foods listed in the 'FOOD.txt' file. The fields are:

Field label	Prio	Scope Note
SOURCEID	M	Source identification code (link to the 'SOURCE.txt' file)
ORIGFDCD	M	Original food code (link to the 'FOOD.txt' file)
NAME	M	Name of the food (different from the FOOD.ENGFDNAM or from the FOOD.ORIGFDNM)
LANG	M	Language of the food name, according to ISO 639 (see Annex11). Equals 'TX' for the taxonomic names
NAMSTATUS		Used to distinguish between preferred and other taxonomic names or for food names in a third language. Equals 'P' (preferred) or 'S' (synonym)
BIBREF		Bibliographic reference code, linked to the 'PUBLI.txt' file.
REMARKS		Attached notes, comments, i.e. any further remarks

Note:
For each name one row.

Example

DE1<tab>G04678<tab> phaseolus vulgaris<tab>TX <tab>P<tab>234<tab>blablabla
DE1<tab>G04678<tab> phaseolus sativus<tab>TX <tab>S<tab>17<tab>
DE1<tab>G04678<tab>Fagiolini<tab>it <tab><tab><tab>bla blabla

FILE 3: DEFINITION OF THE FOOD GROUPS

This file (CLASSIF.txt) is a definition file listing the codes used in the food classification in the original dataset. The fields are:

Field label	Prio	Scope Note
SOURCEID	M	Source identification code.
ORIGGPCD	M	Food group identification code used in the original dataset. This code is unique.
ENGFDGP	M	English name of food group
ORIGFDGP		Name of the food group in original dataset

Examples

FR1<tab>05<tab>dairy products<tab>produits laitiers

FR1<tab>0505<tab>cheeses <tab>fromages

FILE 4: DEFINITION OF COMPONENTS

This file (COMPONENT.txt) is a definition file listing the component codes used in the original dataset. The fields are:

Field label	Prio	Scope Note
SOURCEID	M	Source identification code
EUFDSNAM	M	Eurofoods component tag name following the COST99 Recommendations (see Annex 3)
ORIGCPCD	M	Original component code, ID or abbreviation used to identify the component in the original dataset. This code is unique.
COMPNAME	M	Name of the component in the original dataset, translated into English and retaining all the information in the original language version.
ORIGNAME		Name of the component in the original dataset, expressed in the original language.
REMARKS		Attached notes, comments, i.e. any further remarks. Particularly to be used to specify the difference of the definition compared to the Eurofoods component tag name.

The components to be covered in the interchange files are described in Annex 3.

Examples

ES2<tab>CAROT<tab>caroten<tab>carotene, total<tab><tab>

FR1<tab>VITC<tab>55100<tab>vitamin C (mg/100g)<tab> Vitamine C (mg/100g)<tab>

FILEs 5, 6, 7: COMPONENT VALUES

These files contain nutritional and other information belonging to the complete data set. The information for each component value is divided into three files. The file definitions are the following:

FILE 5: DEFINITION OF COMPONENT VALUES

This file (COMPVAL.txt) contains the description of the value.

Field label	Prio	Scope Note
SOURCEID	M	Source identification code
ORIGFDCD	M	Original food identification code, linked to the 'FOOD.txt' file
ORIGCPCD	M	Original component code, linked to the 'COMPONENT.txt' file
STATUS	M	Flag on the 'document' status: Equals '1' (by default) if the value is sent with some documentation, '0' otherwise. *Also see the note below.*
BESTLOC		Component value ('best location') that is considered the best representative value according to the decision of the data compiler. It should use decimal points (and not commas). This field should never be empty (BESTLOC = '0' when VALTYPE = 'RZ', 'LZ') except for VALTYPE = 'N', 'UD'. For VALTYPE = 'TR' and 'BL' enter value if available, if no value is available enter '0'. If a value is genuinely missing in the FCDB, no record should appear in the COMPVAL, VALREF and METHVAL files.
UNIT	M	Unit following the COST99 Recommendations (see Annex 4). *Also see the notes below.*
MOEX	M	Mode of expression following the COST99 Recommendations (see Annex 5). *Also see the notes below.*
VALTYPE	M	Value type, i.e. qualitative description of the value, following the COST99 Recommendations (see Annex 6). *Also see the notes below.*
STDV		Standard deviation of the value, for normal distributions only
MIN		The minimal value of the same distribution or of different distributions
MAX		The maximal value of the same distribution or of different distributions
N		Number of values contributing to the statistic e.g. samples, values from different sources…
QI		Quality index, i.e. result of any systematic quality assessment applied by the data provider (refers to the modalities defined in the QUALASSM field of the 'SOURCE.txt' file)
REMARKS		Attached notes, comments, i.e. any further remarks. E.g. fortification

Note on Status field: The Status field had been foreseen because some compilers formerly proposed to send us all their nutrient data even those, which are not required for the ENDB project. Now, only the interest values for the ENDB project (i.e. national foods matching the EPIC restricted occurrences only) are handled though National data sets. However, it can

happen that for country-specific reasons, component values will be loaded through the interchange files as the documentation will be filled directly into the ENMan software afterwards. This 'STATUS' field should be '0' for undocumented values, else the default value is '1'. Please inform Jerome/Ian if you plan to send undocumented data.

Notes on Unit, MoEx and ValType fields:

The 'UNIT', 'MOEX' (mode of expression) and 'VALTYPE' (value type) are mandatory fields. As such, they should never be empty, this is very important for data validation prior to the standardisation step.

1.1. 'UNIT', 'MOEX' of conversion factors:

In the case where the conversion factors (Nitrogen to protein conversion factor and Fatty acid conversion factor) are reported as the components NCF and FACF in the COMPVAL file, use the following value descriptors:

NCF: g protein/g N

UNIT = g (implying for protein)
MOEX = 'N' for per g nitrogen
VALTYPE = 'CF' for 'conversion factor'

FCF: g fatty acid/100 g total fat.

UNIT = g (implying for fatty acids)
MOEX = 'TF' for per 100g total fat (newly added)
VALTYPE = 'CF' for 'conversion factor'

1.2. 'UNIT', 'MOEX' of density (e.g. for ice cream, oil, beverages):

The density is used to convert to and from standard volumetric or household measures. If it is reported as the component DEN in the COMPVAL file, use the following value descriptors:

UNIT = 'kg/l' for 'Kilogram per liter' (newly added)
MOEX = 'X' for 'not applicable'
or

1.3. 'UNIT', 'MOEX' of specific gravity (to be reported under 'DEN' as well). It is the density of the food or fluid divided by the density of water at the 4°C. Specific Gravity is used to convert to and from standard volumetric or household measures**:**

UNIT = 'R' for 'ratio'
MOEX = 'X' for 'not applicable'

Since it can be measured, some of the usual VALTYPEs apply. However, a new VALTYPE 'AR' for 'as reported' has been added to document values that were taken from a reference work without further evaluation.

1.4. 'UNIT', 'MOEX' of edible proportion:

In the case where the edible part of the food is reported as the component EDIBLE in the COMPVAL file, use the following value descriptors:

UNIT = 'R' for 'ratio'
MOEX = 'X' for 'not applicable'

Since it can be measured, some of the usual VALTYPEs apply.

FILE 6: LINK BETWEEN VALUES AND REFERENCES

This file (VALREF.txt) contains the link between each nutrient value and its reference. If a nutritional value refers to several publications, then the file should contain as many rows as necessary for this nutritional value (i.e. the combination of SOURCEID / ORIGFDCD/ ORIGCPCD is not forced to be unique in the file). On the other hand, if there is no corresponding reference in the 'PUBLI.txt' file, no record should appear in the 'VALREF.txt' file for the nutritional value, as BIBREF is a mandatory field in this file (i.e. no BIBREF, no line in file).

Field label	Prio	Scope Note
SOURCEID	M	Source identification code
ORIGFDCD	M	Food identification code, linked to the 'FOOD.txt' file
ORIGCPCD	M	Nutrient code, linked to the 'COMPONENT.txt' file
BIBREF	M	Bibliographic reference code, linked to the 'PUBLI.txt' file.
NRLN		Food identification code in the bibliographic reference when the BIBREF corresponds to a food composition table. Corresponds to the Original food code, ID or abbreviation used to identify the food in the original food composition database or publication. If the identifier is a line number in a printed table, this code should be presented as a combination of identifier for publication plus line number, in order to avoid duplicates.
LINKTYPE		Indicates that the reference does not relate to the value itself but to the values used in (re-)calculating the value (field equals 'RC' in that case, is blank otherwise) 'RC' should also be added whenever a value is numerically different from that reported in the reference, for example when converting the unit or mode of expression.

Note on 'borrowed' values: Information on the source of values 'borrowed' from other food composition tables will be particularly important during the data evaluation phase. For such references, the NRLN field, above, indicates the food item within the source FCT from which data were taken. Please ensure this information is provided if it is available.

FILE 7: LINK BETWEEN VALUES AND METHOD DESCRIPTIONS

This file (METHVAL.txt) contains information about the method(s) associated with each nutrient value. One row is provided in the METHVAL file for each value and corresponds to the main or most recent source of information for the described value. Put into the METHHDLN field only the main analytical or calculation method used to obtain the final component value. If it is necessary to document the analytical method for the components contributing to calculated value, for example for individual sugars contributing to the SUGAR total, enter the appropriate method in the KEYSTEP field.

The METHVAL file contains only one row per value (i.e. the combination of SOURCEID / ORIGFDCD/ ORIGCPCD should be unique in the file). Since the minimum information on the method for a documented value is a Method Type code, there should be one METHVAL row for every value.

Field label	Prio	Scope Note
SOURCEID	M	Source identification code.
ORIGFDCD	M	Food identification code, linked to the 'FOOD.txt' file
ORIGCPCD	M	Nutrient code, linked to the 'COMPONENT.txt' file
METHTYPE	M	Method type code, following the COST99 Recommendations (see Annex 7)
METHHDLN		Method Headline code used for the analysis, following the COST99 Recommendations (see Annex 8). Methods headlines for additional preparation (e.g. hydrolysis), separation, quantification (e.g. Spectrophotometry) or calculation should be indicated in the keysteps, if applicable. *Attached "MetCompLinks.xls" file serves as a reference to link methods headlines and specific components.*
ANALDATE		Date of analysis for the value, if available. The format of this field must be one of YYYY-MM-DD, YYYY-MM, YYYY or YYYY-YYYY (for year ranges, e.g. for an analytical project). Further notes can be added in square brackets
METHDESC		Description of analytical method, enzyme used, pH, etc. The text may include reference citations (preferably with full information in the PUBLI.txt file), but should never just consist of a reference. A plain reference should always be entered as a reference code in the BIBREF field. *Also see the notes below.*
KEYSTEP		In this field, only indicate one method headline code for the analytical method used to determine the contributing components when the METHHDLN code reports a summation (with or without factors). *Also see the notes below.*
BIBREF		Bibliographic reference code, linked to the 'PUBLI.txt' file reference specifically for the method mentioned in the METHHDLN field. Either METHVAL.BIBREF is empty or it is a different reference from the VALREF.BIBREF (except when the VALREF.BIBREF indeed reports a new method), and preferably should refer to a published source.

Notes:
*) If a method headline is reported as a calculation for a value, method documentation for the contributing components (as listed in Annex 3) should be reported for the calculated value, preferably in the KEYSTEP field with a single method headline code or alternatively in the METHDESC field in text form.
*) If you do not find an analytical method used in your dataset among the list of headline methods (Annex 8), please send the name of the analytical method with a short description to us so that we can update this list and provide you with a new headline method code.
*) AOAC numbers and other national references for analytical methods should be indicated in the KEYSTEP or METHHDLN field in the METHVAL file following the method headline code in square brackets. The reference in square brackets should preferably be a reference code in file 8 but, if it is not, it will be assumed that the text in brackets is the code for a standard method or a short text reference.

Examples

COMPVAL.txt :
IT2<tab>123<tab>V17<tab>1<tab>0.5<tab>ug<tab>T<tab>MN<tab>0.08<tab>0.35<tab>0.8<tab>9<tab>B<tab>"bla, bla, bla…"

VALREF.txt:
IT2<tab>123<tab>V17<tab>3<tab>423<tab>
IT2<tab>123<tab>V17<tab>56<tab><tab>

METHVAL.txt :
IT2<tab>123<tab>V17<tab>A<tab>ME17<tab>1997-11-08<tab>lactobaccilus caseii<tab><tab>43

COMPVAL.txt :
IT2<tab>100061<tab>V33<tab>1<tab>2.11<tab>g<tab>W<tab>MN<tab><tab><tab><tab><tab><tab><tab>

VALREF.txt:
IT2<tab>100061<tab>V33<tab>2020<tab><tab>RC

METHVAL.txt :
IT2<tab>100061<tab>V33<tab>S<tab>ME200<tab><tab><tab>ME45<tab>

FILE 8: PUBLICATIONS

This file (PUBLI.txt) holds bibliographical information for the various types of published and unpublished references cited in the dataset (See also COST99 Recommendations[1]). These may include the original sources of the data contained in the national database (with links in VALREF.txt file), references describing methods used (with links from the METHVAL.txt BIBREF field), and references cited within Remarks and other textual fields. The fields are:

Field label	Prio	Scope Note
SOURCEID	M	Source identification code.
BIBREF	M	Bibliographic reference code in original dataset, i.e. code used in the national database to identify the publication. This code is unique. *In the particular case of the recipe collection by Epic collaborators, if a recipe publication has to be added, then this reference code should be 'nnn' numeric prefixed with the 'ER' character (e.g. 'ER001').*
PUBTYPE	M	Publication type following the COST99 Recommendations (see Annex 9)
ACQTYPE	M	Acquisition type following the COST99 Recommendations (see Annex 2)
TITLE	M	Title of the publication
AUTHORS	M	Authors. If no person or organisation is cited as the author, input "Anon." (i.e. Anonymous)
PUBLISHR		Publisher
PUBDATE	M	Publication or production date, in the form YYYY-MM-DD. As minimum information, the year YYYY should be included, even for unpublished material
VERSION		Version i.e. attribute used for any versioning system other than publication date or edition number
ORIGLANG		Original language that the publication was originally written in, according to ISO 639 (see Annex 11). Only one code should be entered (principal language, if there are several). 'xx' if language is unknown.
ISBN		International Standard Book Number
FSTEDDAT		First edition date, when was the first edition published
EDNR		Edition number, what is the current edition
NRPAGES		Total number of pages
BKTITLE		Title of the book in which the article appears
EDITORS		Names of the editors of the book or report containing the article
PAGES		Book, journal or report pages covered by the article, e.g. 19-32
LGJRNAME		Long journal name
ABJRNAME		Abbreviated journal name. This should always be present for journals and journal articles, and should uniquely identify the journal. It should apply standard abbreviations, but may occasionally be the same as LGJRNAME
ISSN		International Standard Serial Number
VOLUME		Volume

ISSUE	Issue
SERINAME	Series name, if a report is published within a series of other reports
SERINR	Series number i.e. number of the report within the series
RPRTITLE	Title of the report in which the article appears
VALID	Since when the document is valid, in the form YYYY-MM-DD, for document
REMARKS	any further remarks
URL	Uniform Resource Locator, i.e. the internet address of the web site (only used when PUBTYPE = 'WW')

The 'TITLE', 'AUTHORS', 'PUBLISHR', 'PUBDATE', 'VERSION', 'ORIGLANG', 'ACQTYPE' and 'PUBTYPE' fields are common for all the publication types

The following specific fields are filled in, depending on the publication type:

- for a book : 'ISBN', 'FSTEDDAT', 'EDNR', 'NRPAGES', 'PAGES', 'VOLUME'
- for an article in book : 'BKTITLE', 'EDITORS', 'ISBN', 'PAGES', 'VOLUME'
- for a journal (issue): 'LGJRNAME', 'ABJRNAME', 'ISSN', 'VOLUME'. 'ISSUE'
- for a journal article : 'LGJRNAME', 'ABJRNAME', 'ISSN', 'PAGES', 'VOLUME', 'ISSUE'
- for a report : 'SERINAME', 'SERINR', 'ISBN', 'NRPAGES', 'PAGES'
- for an article in report : 'EDITORS', 'RPRTITLE', 'SERINAME', 'SERINR', 'ISBN', 'PAGES'
- for an authoritative document : 'ISBN', 'ISSN', 'VALID'
- for a web site : 'URL'

Notes:

1. Concerning 'Food Label' references ('PUBTYPE' = 'L', 'ACQTYPE' = 'L'), note that 'TITLE' should be the Product Name or, where appropriate, the Title of the brochure, and that 'AUTHORS' should be the Company Name.
2. If any record has an empty TITLE fields, this will generate an error message. Where no title is available, the text "(No title)" might be used.
3. If no information on the PUBDATE field is available, use "XXXX", analogous to ANALDATE. An alert message will be produced when the PUBDATE field is blank.
4. If information is taken from a website or food label (no PUBDATE existing), the compiler should indicate the date when the information was retrieved to avoid an empty PUBDATE field.
5. If records for PubType 'L' and 'F' have URL data (and Acquisition Type the same as PubType), the content information should be retained in the AcqType, with the PubType being 'WW'. VERSION data may be present for PubType 'WW' (e.g. for USDA release 14).
6. VOLUME should be added for books ('B' and 'AB') e.g. needed for USDA Handbook no. 8 volume 1.
7. For PubType 'E', data should be allowed in any field except LGJRNAME and ABJRNAME
8. Alert message will appear if several references appear to be identical with respect to their PUBLI rows.

Examples

ES2<tab>4<tab>B<tab>F<tab>Food Composition Database for Epidemiological Studies in Italy<tab>"Salvini, S., Parpinel, M., Gnagnarella, P., Maisonneuve, P., Turrini, A."<tab>Italian Food Institutes<tab>1998-04<tab><tab>it<tab>88-900271-0-X<tab>1998-04<tab>1<tab>958<tab><tab><tab><tab><tab><tab><tab><tab><tab><tab><tab><tab><tab><tab>

UK1<tab>23<tab>AJ<tab>P<tab>Meat / Fish: a choice? <tab>Butcher et al.<tab><tab>1997-03-07<tab><tab>en<tab><tab><tab><tab><tab><tab><tab>67-74<tab>Journal of American Nutrition<tab>J. Am. Nut.<tab>97-1433-24<tab>4<tab>7<tab><tab><tab><tab><tab>

FILE 9: DEFINITION OF LINK BETWEEN NATIONAL FCDB AND EPIC DATABASE

This file (FOODLINK.TXT) is a definition file listing the EPIC occurrence sequences and their corresponding national food-identifiers (many-to-one relationships) used in the national food composition databases (See updated Guidelineonfoodmatching.doc document). This work has already been done by the EPIC collaborators, so this file doesn't need to be sent again.

FILE 10: CORRESPONDENCE TABLE FOR PUBLICATION CODES

This file (PUBLINK.TXT) links EPIC publication codes for frequently cited food composition tables with the corresponding publication codes used in the original dataset (file PUBLI.txt). The purpose of this file is to facilitate the comparison of national data. The common publication codes are given in Annex 10. The fields are:

Field label	Prio	Scope Note
SOURCEID	M	Source identification code.
BIBREF	M	Bibliographic reference code in original dataset and file PUBLI.txt
EPICREF	M	Common publication code defined for EPIC project (see Annex 10)

Examples

FR1<tab>52<tab>A22
FR1<tab>104<tab>A08

ANNEX 1: SourceID

For this data interchange, the following SOURCEIDs have been defined:

SOURCEID	Label
DE1	Germany – BgVV-BLS
DE2	Germany – SFK
DK1	Denmark – DVFA
ES1	Spain – CESNID
ES2	Spain – Ministry of Health
FR1	France – CIQUAL
GR1	Greece
IT1	Italy – Rome
IT2	Italy – Milan/Florence
NL1	Netherlands – NEVO
NO1	Norway – Council of Nutrition and Physical Activity
SE1	Sweden – National Food Administration
UK1	Great Britain – Food Standards Agency
US1	U.S.A. - USDA

In order to standardise all needed additional SOURCEIDs, you will need to contact the receiver (EPIC, Lyon), who will provide you and the other compilers with a standardised SOURCEID for a particular source. E.g. if sender X is authorised to send the TRANSFAIR data, he/she contacts the EPIC centre, where the proper SOURCEID will be attributed, e.g. as EU2 (sender X then sends the TRANSFAIR data with SOURCEID EU2). This is an extension of the COST99 recommendations on this point.

ANNEX 2: Acquisition Type

Source: EUROFOODS working group on data management and interchange.

Code	Descriptor	Scope note
O	In-house or affiliated laboratory	(O = own); in-house or affiliated laboratory report/protocol. Study design, sampling, and analysis are under direct control of the person or organisation reporting the data.
I	Industry laboratory	Laboratory report/protocol of a food producer or distributor.
D	Independent laboratory	Laboratory report/protocol of a third party laboratory not directly affiliated with the food producer or the organisation that initiated the investigation and now reports the data.
F	Food composition table, databases or datasets	Compiled food composition table, databases or datasets. The compiler is now responsible for the data. Typically, the underlying data sources are only documented briefly but further information is available from the compiler. Food composition tables are mostly published by the compiler.
P	Published and peer reviewed scientific paper	Peer reviewed scientific study, published in a journal or book.
C	Scientific communication	Published articles reports, posters, letters… not necessarily peer reviewed
L	Food label, product information	Food label or product information provided by the producer or distributor with no further information about the data sources.
S	Value created within host-system	To be used for values created by a compiler within his or her FCDBMS using calculation or estimation. Note: simple unit conversion does not fall into this category.
E	Other acquisition type	(E = else); other acquisition type not mentioned in this list
X	Acquisition type not known	

ANNEX 3: Eurofoods tagnames for ENDB component list

The following is a list of components and their Eurofoods component tagnames for the ENDB data interchange. For further information, consult the EUROFOODS Recommendations for Food Composition Database Management and Data Interchange. The second section lists components whose analysed values may contribute to the calculation of first priority values and assist in the evaluation of the resultant first priority nutrient values. The final list includes some related nutrients, and food properties that may also be significant to the standardisation of the first priority nutrients.

First priority nutrients

Eurofoods identifier	Nutrient name	Nutrient definition and other notes
ENERC	energy, calculated	To be calculated from contributions of fat, protein, carbohydrate and alcohol (and excluding minor contributors of energy). For the valid use of standard factors, the definitions of the contributing nutrients must be standardised
WATER	water	Often derived from dry matter analysed by a drying method but normally treated as an analytical value
FAT	fat, total	Values method-dependent
FATAN	fat, animal	Alternatively to be input during Target Documentation or through the ORIGIN field of the FOOD.txt file.
FATPL	fat, plant	As for FATAN
FATUNK	fat, unknown origin	As for FATAN
PROT	protein, total	Values dependent on the Nitrogen Conversion Factor applied. To be standardised to PROT[625]
PROTAN	protein, animal	As for FATAN
PROTPL	protein, plant	As for FATAN
PROTUNK	protein, unknown origin	As for FATAN
CHOT	carbohydrate, total	Includes dietary fibre
CHO	carbohydrate, glycaemic	Digestible carbohydrate previously referred to as 'available' carbohydrate, which excludes dietary fibre. Either CHOT or CHO must be chosen for standard energy calculation and this determines the factor to be used
ALC	alcohol	
DRYMAT	dry matter	Usually to be back-imputed as 100 – WATER (– ALC where appropriate)
ASH	ash	Only required when CHOT obtained 'by difference'
NT	nitrogen, total	Strictly, 'total organic nitrogen' as measured by the Kjeldahl method

FIBT	fibre, total dietary	FIBT[AOAC]: as determined by enzymatic-gravimetric methods. Includes lignin and 'resistant starch. For Englyst values, see 'Related nutrients', FIBT[NSP]
FASAT	saturated fatty acids	Total of ***straight-chain*** saturated fatty acids, down to C4
FAMS	mono fatty acids	Total of ***cis*** monounsaturated fatty acids
FAPU	poly fatty acids	Total of ***all(?)-cis*** polyunsaturated fatty acids
CHORL	cholesterol	
SUGAR	sugars, total	Mono- and di-saccharides, excluding trisaccharides and higher oligosaccharides
STARCH	starch, total	Including dextrins and glycogen
CA	calcium	
FE	iron, total	Haem and non-haem iron
NA	sodium	
K	potassium	
MG	magnesium	
P	phosphorus	
VITD	vitamin D	Cholecalciferol (D_3) plus ergocalciferol (D_2), sometimes plus 5 x 25-OH-D_3 (or an alternative factor)
VITE	vitamin E; a-tocoph equivs	The main vitamer TOCPHA has been proposed as an alternative that might simplify standardisation
VITA	vitamin A; retinol equiv	Generally to be recalculated from RETOL and CARTBEQ using standard factors
CARTBEQ	beta-carotene equivs.	Either beta-carotene alone or with contributions from other carotenoids
RETOL	retinol	Sum of retinoids as all-*trans*-retinol, with or without application of activity factors
RIBF	riboflavin	
THIA	thiamin	
VITB12	vitamin B-12	
VITB6	vitamin B-6	
VITC	vitamin C	Generally L-ascorbic (AA) and L-dehydroascorbic (DHAA), but can be AA alone (Sweden)

Contributing components

The following components contribute to component totals and vitamin activities listed above as ENDB first priority nutrients. The values for these contributing components will provide additional useful information for the standardization and evaluation of the first priority nutrients.

If you already have documented these values according to the old guidelines, or have method documentation readily available, please resend this information. Else if method documentation is required, give it in the KEYSTEP field of the priority nutrient, and send just

the value, unit and mode of expression for the contributing component (and thus no corresponding row in the METHVAL file). We will assume that these values are analysed values, automatically assigning them value type 'CO' and method type 'A'. If they are not analysed values, please also provide the appropriate value type and method type. For contributing values it is not requested that you fill in missing values nor confirm logical zeroes, etc.

First priority nutrient total	Contributing nutrients		Notes
	Eurofoods identifier	Nutrient/property name	
SUGAR	FRUS	fructose	Values for the disaccharide trehalose (TRES) may also be included
	GALS	galactose	
	GLUS	glucose	
	LACS	lactose	
	MALS	maltose	
	SUCS	sucrose	
CARTBEQ	CARTB	beta-carotene	
	CARTA	alpha-carotene	
	CARTG	gamma-carotene	
	CRYPX	cryptoxanthin	Separate values may be included for α- and β- cryptoxanthin using new identifiers CRYPXA and CRYPXB
RETOL	RETOLAT	all-trans retinol	The identifier RETOL is ambiguous and it is preferable to use the identifier RETOLATE, for **all-trans retinol equivalents**, to differentiate the total from RETOLAT
	RETALD	retinaldehyde	
	RETOL13	13-cis retinol	
	RETOLDH	dehydroretinol	
VITD	CHOCAL	cholecalciferol (vitamin D3)	
	ERGCAL	ergocalciferol (vitamin D2)	
	CHOCAL25	25-hydroxycholecalciferol	The identifier CHOCAL25 is new
VITE	TOCPHA	alpha-tocopherol	Values will normally be reported for those vitamers that were included in the calculation of VITE. Note that TOCPHA has been proposed as an alternative to VITE and its value should be provided whenever possible
	TOCPHB	beta-tocopherol	
	TOCPHD	delta-tocopherol	
	TOCPHG	gamma-tocopherol	
	TOCTRA	alpha-tocotrienol	
	TOCTRB	beta-tocotrienol	
	TOCTRD	delta-tocotrienol	
	TOCTRG	gamma-tocotrienol	
VITC	ASCL	L-ascorbic acid	
	ASCDL	L-dehydroascorbic acid	

Related nutrients and properties

Values for the following nutrients and properties may be included in file 5, COMPVAL.txt, as described in the Notes column. Values for the properties NCF, FACF, DEN and EDIBLE

should be included in the COMPVAL file if they are defined as components in file 4. Otherwise they should be provided in the appropriate fields of file 2, FOOD.txt.

Eurofoods identifier	Nutrient/property name	Definition and other notes
OLSAC	oligosaccharides	Trisaccharides and higher oligosaccharides with up to (approximately) ten monosaccharide units. If the value is excluded from SUGAR and STARCH but included in the CHO total, its value should be included
MNSAC	monosaccharides, total	May be available (with DISAC) instead of SUGAR (e.g. Sweden)
DISAC	disaccharides, total	May be available (with MNSAC) instead of SUGAR (e.g. Sweden)
FATRN	trans fatty acid	Total of unsaturated fatty acids with at least one trans double bond. The value should be provided if it is not included in the FAMS or FAPU totals
CLD	chloride (chlorine)	Useful, since it outweighs NA in salt, for mineral summation if no ASH value. No documentation required
DEN	density/specific gravity	Required for foods (generally beverages) that have values expressed 'per 100ml food volume'
EDIBLE	edible proportion	Required for foods that have values expressed 'per 100g total food'
NCF	nitrogen conversion factor	Required for foods that have PROT values but none for NT
FACF	fatty acid conversion factor	Required for converting between FAT and fatty acid values, e.g. in profile calculation, or if fatty acid values expressed 'per 100g total fatty acids'

ANNEX 4: Unit

Source: EUROFOODS working group on data management and interchange.

Unit description is influenced by International Standard, ISO 1000:1992 (incl. Draft Amendment 1, ISO 1000:1992/DAM 1(1997)). The standard is extended with food composition specific units. The table below lists the units that have so far been identified as relevant to the field.

Code	Descriptor	Scope note
RE	Retinol equivalent	1 RE = 1 ug all-trans retinol
BCE	Beta-carotene equivalent	1 BCE = 1 ug all-trans beta-carotene
ATE	Alpha-tocopherol equivalent	1 ATE = 1 mg RRR-alpha-tocopherol
		1 ATE = 1 mg d-alpha-tocopherol
NE	Niacin equivalent	1 NE = 1 mg niacin or 60 mg tryptophan
MSE	Monosaccharide equivalent	1 MSE = 1 g glucose
kg	Kilogram	
g	Gram	
mg	Milligram	
ug	Microgram	
ng	Nanogram	
l	Liter	
ml	Milliliter	
ul	Microliter	
mmol	Millimol	
kJ	Kilojoule	
kcal	Kilocalorie	
Kg/l	Kilogram per liter	
R	Ratio	

ANNEX 5: Mode of expression

Source: EUROFOODS working group on data management and interchange.

Code	Descriptor	Scope note
W	per 100g edible portion	
T	per 100g total food	As purchased including any waste e.g. chicken wing with bones, banana including peal, etc.
D	per 100g dry weight	
WKG	per kg edible portion	
TKG	per kg total food	
DKG	per kg dry weight	
VL	per l food volume	
V	per 100ml food volume	
F	per 100g total fatty acids	
N	per g nitrogen	
FT	per g total fat	
TF	per 100g total fat	
X	not applicable	

ANNEX 6: Value Type

The Value Type is designed to further describe the figure in *Best Location* in the *Value* table, or to give a qualitative description of the value when no *Best Location* can be given. Source: EUROFOODS working group on data management and interchange[1].

Code	Descriptor	Scope note
MN	Mean	The compiler chose the mean of the statistic values as Best Location. Mean should only be used for values deriving from the same statistical distribution and if method type is 'A' analytical results.
MD	Median	The compiler chose the median of the statistic as Best Location. Median should only be used for values deriving from the same statistical distribution and if method type is 'A' analytical results.
MI	Minimum	The compiler chose the minimum value within the statistic as Best Location. Minimum should only be used for values deriving from the same statistical distribution and if method type is 'A' analytical results.
MX	Maximum	The compiler chose the maximum value within the statistic as Best Location. Maximum should only be used for values deriving from the same statistical distribution and if method type is 'A' analytical results.
AV	Average	The compiler chose the average of values coming from different sources. The average should be used for non-statistical distributions.
CV	Central Value	The compiler chose the central value if the values are coming from different sources. It should be used for non-statistical distributions.
W	Weighted	The Best Location is a weighted average of values from several sources. Examples of weighting criteria include weighting by brands, by number of samples etc.
LT	less than	Use this value type if there is no further statistical information available for MX and if no other value type applies. LT is also useful in case of calculated or imputed rather than analysed values. The figure given in Best Location should be interpreted as an upper limit.
MT	more than	Use this value type if there is no further statistical information available for MN and if no other value type applies. MT is also useful in case of calculated or imputed rather than analysed values, e.g. in recipe calculation. The figure given in Best Location should be interpreted as a lower limit.
BE	best estimate	According to the responsible compiler, the value is the "best" available. Best estimate can be used even if further statistical information is reported. Values obtained from other component values by a single calculation, which will be documented further in the METHVAL record for the value, are also normally assigned as Best Estimate.
TR	Trace	Use Trace only when there is evidence that some amounts of the component is present but no precise figure can be given, e.g. if the level measured is below the level of quantification. Further information about the exact definition of trace should be provided under *Remarks* in either the corresponding Value-, Method-, Component-, or Source-Description. Trace values should be reported with their numerical value if available. If no value is available, TR should be used together with a '0' value for "Best Location".
BL	below detection limit	The component is detectable with the applied method, but readings are below the limit of detection (LOD). It is recommended to provide information about the limit of detection within the corresponding method description. BL should be reported with its numerical value if available. If no reading is available, the value can be estimated as 0.7*LOD. If no value is available, BL should be used together with a '0' value for "Best Location".
LZ	logical zero	The component in question never appears in the food in question, e.g. alcohol in meat, or fat in mineral water. Use LZ together with Method Type U. The 'logical zero' can be used to indicate the absence of e.g. alcohol in most foods, and of vitamin B12, cholesterol in vegetables etc.

RZ	regulatory zero	The component in question never appears in the food in question according to (national) food regulations Use RZ together with Method Type L. It can be used to complete missing values in databases, if information is available.
CF	conversion factor	Use this value type when the conversion factors are treated as components. Use CF together with Method Type E.
CO	contributing value	Automatically assigned during import to values for contributing components, as described in Annex 3. The assignment will be made if there is no Value Type code in the COMPVAL record for the value.
AR	as reported	As reported, e.g. in a reference book, but not evaluated by the compiler. In some cases this may be appropriate for non-compositional data, for example density, included in databases.
UD	Undecidable	Use this value type together with a blank Best Location and with Method Type 'X' in cases where no decision can be made, e.g. the available data differ too much. Other statistical parameters, however, might be available, e.g. minimum, maximum.
N	unknown	Use this value type together with a blank Best Location and with Method Type 'X' in cases where compilation work has shown the value to be unknown, i.e. there is no literature available and no estimation or calculation possible. This Value Type is useful in food composition tables and might be useful at other levels of the compilation process.
E	Other value type	(E = else); other value type not mentioned in this list
X	Type not known	The type for the given value is not known

Note:
The same statistical distribution includes different studies carried out at different periods on the same population (of foods) if common statistical rules apply to the data in questions; e.g. it can be statistically shown that the values belong to the same statistical distribution ($p<0.05$ that the data belong to different distributions). Statistical tests are commonly used to see, if trends over time are real or just natural variations. For most data, differences are found to be due to natural variations, and all data can go into the MN statistic. In a few cases, however, the tests show significant differences, and the data cannot be aggregated as a statistic MN, or only the latest samples can be used in a MN.

ANNEX 7: Method Type

Source: EUROFOODS working group on data management and interchange[1].

Code	Descriptor	Scope note
AG	analytical, generic	Use this Method Type if no further information on the analytical method is available, regardless if the value derives from the same or different statistical distributions.
A	analytical result(s)	Analytical result or statistic of multiple measurements of the same food sample (replicates). See the 'Headline method code' field, MethHdln, of the METHVAL file and Annex 8 for further information. 'A' can be used regardless if the value derives from the same or different statistical distributions.
D	aggregation of contributing analytical results	Value derived as an aggregation of accepted analytical contributing results (e.g. from different sources or different food samples). See the 'Headline method code' field, MethHdln, of the METHVAL file and Annex 8 for further information. If values by more than one method have been aggregated, then more than one METHVAL row should be included.
CG	calculated, generic	Use this Method Type if no further information on the nature of calculation is available.
G	calculated as aggregate food item	Used in case of aggregated foods when the composition is mainly obtained by summation of the composition of its ingredients. If the aggregation applies to all values for a food, further information should appear in the FOOD table, e.g. in the REMARKS field.
R	calculated as recipe	Used in case of complete recipe calculation incl. NLG factors.
P	calculated on component profile	E.g. fatty acid profile, amino acid profile for a specified food.
S	summation from constituent components	See method headline (Annex 8) for further information. Note that summation includes subtraction, e.g. calculation of total carbohydrates by difference.
T	calculations including conversion factors	E.g. for energy calculation or for calculating alpha-tocopherol equivalents.
K	calculated from related food	Useful as separate case where a specific calculation, rather than imputation is performed on a related food, e.g. Toast from Bread or the calculating the values for a food 'weighed with waste'. If the imputation applies to all values for a food, further information should appear in the FOOD table, e.g. in the REMARKS field.
IG	imputed/estimated, generic	Use this Method Type if no further information on the nature of imputation/estimation is available.
I	imputed/estimated from related food	Value imputed, estimated or copied from the value for a related food, including similar foods reported in other FCT sources.
O	imputed/estimated from other food and other related component	Note that with *food* and *component* we refer to the definitions given in chapter 1 of the Eurofoods Recommendations.
L	estimated according to regulatory requirements	L stands for legislation.
U	estimated according to logical deduction	E.g. Edible proportion for milk, etc. is 100%
E	Other method type	(E = else); other method type not mentioned in this list
X	Method type not known	no method information available

Note: Method types A, S and T should always be followed by a Method Headline code (see Annex 8). Method Type D can be followed by a Method Headline code. Other Method Types are not normally followed by a method headline.

ANNEX 8: Method Headline

Source: EUROFOODS working group on data management and interchange.

Code	Descriptor	Abbreviation
ME1	acid detergent method (ADF)	ADF
ME2	acid detergent method [Clancy modification]	ADF[Clancy]
ME3	acid hydrolysis; extraction	Acid hydrol>extrn
ME4	air drying at 100-105°	air drying,100-105
ME5	air drying at 130°	air drying,130
ME6	air drying at 70°	air drying,70
ME7	alkali treatment; enzymatic hydrolysis	Enzyme hydrol<alk
ME8	Alkaline distillation	alk distilln
ME9	Alkaline hydrolysis; extraction	alk hydrol>extrn
ME10	atomic absorption spectroscopy (AAS)	AAS
ME11	atomic absorption spectroscopy (AAS), flame	AAS,flame
ME12	atomic absorption spectroscopy (AAS), flameless	AAS,flameless
ME13	atomic absorption spectroscopy (AAS), graphite oven	AAS,graphite oven
ME14	atomic absorption spectroscopy (AAS), hydride	AAS, hydride
ME15	Automated amino acid analysis	aut AA
ME16	Babcock, modified	Babcock, mod
ME17	Bioassay	Bioassay
ME18	Biuret reaction	Biuret
ME19	bomb calorimetry, adiabatic	Bomb calorim,adiab
ME20	bomb calorimetry, ballistic	Bomb calorim,ballis
ME21	Calculated, Atwater factors, available carbohydrate	{STDA}
ME22	Calculated, Atwater factors, total carbohydrate	{STDT}
ME23	Calculated, CODEX labelling factors, total kcal	{CDXC}
ME24	Calculated, CODEX labelling factors, total kJ	{CDXJ}
ME25	Calculated, kJ factors, available carbohydrate	{KJA}
ME26	Calculated by difference	{DF}
ME27	Calculated by summation	{SM}
ME28	Carpenter method	Carpenter
ME29	Colorimetry	Colorim
ME30	Colorimetry with GLC	Colorim<GLC
ME31	column chromatography	Column chrom
ME32	Continuous extraction	Cont extrn
ME33	Dean & Stark distillation	Dean & Stark
ME34	dry ashing	dry ashing
ME35	dye binding	Dye binding

Code	Descriptor	Abbreviation
ME36	Englyst method	Englyst
ME37	Enzymatic hydrolysis	Enzyme hydrol
ME38	flame photometry	Flame photom
ME39	Fluorimetry	Fluorim
ME40	Folch-type extraction (e.g. fat analysis using chloroform-methanol extraction)	Folch
ME41	Folin's reagent	Folin's reagent
ME42	formol titration	Formol titrn
ME43	freeze drying	Freeze drying
ME44	gas solid chromatography (GSC)	GSC
ME45	GLC	GLC
ME46	GLC, capillary	GLC,capillary
ME47	GLC, packed column	GLC,packed column
ME48	glucose oxidase	GluOxidase
ME49	Gravimetric method	Gravim
ME50	Gravimetric method (AOAC)	Gravim[AOAC]
ME51	Gravimetric method (Hellendoorn)	Gravim[Hellendoorn]
ME52	HPLC	HPLC
ME53	HPLC, normal phase	HPLC,norm ph
ME54	HPLC, reverse phase	HPLC,rev ph
ME55	Immunoassay	Immunoassay
ME56	Inductively coupled plasma optical emission spectrophotometry (ICPOES)	ICPOES
ME57	ion-exchange chromatography	IonXchrom
ME58	ion specific electrode analysis	Ion sp electrode
ME59	IR absorption	IR absorp
ME60	Karl Fischer method	Karl Fischer
ME61	Kjeldahl method	Kjeldahl
ME62	Microbiological assay	Microbiol assay
ME63	Microdistillation	Microdistiln
ME64	Microwave drying	Microwave drying
ME65	mixed solvent extraction (use more specific term where possible, e.g. me40)	Mixed solvent extrn
ME66	near infra-red reflectance (NIR)	NIR
ME67	neutral detergent method	NDF
ME68	NMR	NMR
ME69	optical rotation	Opt rot
ME70	polarimetry	Polarim
ME71	protein from amino acid nitrogen	{CNA}
ME72	protein from protein nitrogen	{CNP}
ME73	protein from total nitrogen	{CNT}

Code	Descriptor	Abbreviation
ME74	radio-isotopic dilution	radio-isotopic diln
ME75	radio-protein binding assay	RPBA
ME76	radiochemical assay	Radiochem assay
ME77	radioimmunoassay	Radioimmunoassay
ME78	radiometric microbiological assay	Radiom microbiol assay
ME79	reductiometric method	Reductiometric
ME80	Röse-Gottlieb method	Röse-Gottlieb
ME81	Schmid-Bondzynski-Ratzlaff method	SBR
ME82	Schoorl method	Schoorl
ME83	Southgate method	Southgate
ME84	Soxhlet or Soxtec* extraction	Sox
ME85	Spectrophotometry	Spectrophotom
ME86	Titrimetry	Titrimetry
ME87	total sugar method	tot sugars
ME88	vacuum drying at 60°	Vacuum drying,60
ME89	Weibuhl Stoldt method	Weibuhl Stoldt
ME90	Wenlock modification	Wenlock mod
ME91	Werner Schmidt method	Werner Schmidt
ME92	x-ray fluorescence (XRF)	XRF
X	Method Name not known	Unknown
	Additional Method Headlines not in COST99 Recommendations:	
ME93	calculated, specific nitrogen conversion factor (FAO)	{FAO}
ME94	calculated, 6.25 nitrogen conversion factor (EEC Directive)	{EEC}
ME95	summation, carbohydrates= sugars + starch	{sugar+starch}
ME96	summation, carbohydrates= sugars + starch + oligosaccharides + maltodextrins	{sugar+starch+oligo}
ME97	calculated, carbohydrates= total carbohydrates minus fibre	{CHOT-FIB}
ME98	calculated, cholesterol = fat + protein * a	{PRO+FAT}
ME99	calculated, fibre = total carbohydrates minus available carbohydrates	{CHOT-CHO}
ME100	calculated, RE = 6 µg β-carotene = 12 µg other pro-vitamin A carotenoids	{RE CAROTS}
ME101	summation, RE = retinol + 0.5 β-carotene	{RET+BETA}
ME102	summation, retinol = all-trans + 0.90 retinaldehyde + 0.75 13-cis + 0.40 dehydroretinol	{RET+ALD+OL}
ME103	summation, α-TE = d-α-tocopherol = 2 β-tocopherol = 10 γ-tocopherol = 3.33 α-tocotrienol	{TOC+B+G+TRIA}
ME104	summation, α-TE = α-tocopherol + 0.4 β-tocopherol + 0.1 γ-tocopherol + 0.01 δ-tocopherol + 0.3 α-tocotrienol + 0.05 β-tocotrienol + 0.01 γ-tocotrienol	{TOCS+TRIS}
ME105	summation, α-TE = tocopherol + 0.4 β-tocopherol + 0.1 γ-tocopherol + 0.01 δ-tocopherol	{TOCA+B+G+D}
ME106	summation, vitamin D = D2+D3	{D2+D3}
ME107	summation, folate = free + bound folic acid	{free+bound}

Code	Descriptor	Abbreviation
ME108	*obsolete code, method headline not attributed anymore*	
ME109	*obsolete code, method headline not attributed anymore*	
ME110	*obsolete code, method headline not attributed anymore*	
ME111	summation, Starch= starch, dextrins+ glycogen	{starch+dextrins+ glycogen}
ME112	summation, Polysaccharides= starch without glycogen nor maltodextrin	{starch - glycogen – maltodextrin}
ME113	Polysaccharides= >10C	{>10C}
ME114	summation, Sugar= mono-, di- and trisaccharides	{mono+ di + trisaccharides}
ME115	summation, Sugar= mono-, disaccharides	{mono+ disaccharides}
ME116	summation, Sugar= glucose, fructose, saccharose, maltose	{ GLUS + FRUS + SUCS + MALS }
ME117	summation, fibre = total carbohydrates minus available carbohydrates	{CHOT-CHO}
ME118	*obsolete code, method headline not attributed anymore*	
ME119	*obsolete code, method headline not attributed anymore*	
ME120	*obsolete code, method headline not attributed anymore*	
ME121	acid hydrolysis; extraction + AOAC, 1980	acid hydrol> extraction> AOAC, 1980
ME122	atomic absorption spectroscopy (AAS), Osborne & Voogt, 1986	AAS, Osborne+Vogt
ME123	Adams, 1986	Adams, 1986
ME124	Blight + Dyer, 1959	Blight + Dyer, 1959
ME125	bioassay +spectrometry	Bioassay >spectrom
ME126	colorimetry (Roe and Kuether, 1943)	Colorim (Roe et al)
ME127	Distillation	Distilln
ME128	Distillation, standard inland revenue	Distilln, std inland UK
ME129	Dumas	Dumas
ME130	Boehringer enzyme kit (Egan et al)	Boehringer (Egan et al)
ME131	Englyst method (1982)	Englyst ,1982
ME132	Englyst method (1988)	Englyst, 1988
ME133	enzymatic hydrolysis (Dean, 1978)	Enzymatic hydrol, Dean, 1978
ME134	enzymatic hydrolysis (Meuser, 1985)	Enzymatic hydrol, Meuser, 1985
ME135	enzymatic hydrolysis (Prosky, 1984)	Enzymatic hydrol, Prosky, 1984
ME136	enzymatic hydrolysis (Van Soest, 1963, 1967)	Enzymatic hydrol, Van Soest, 1963, 1967
ME137	enzymatic hydrolysis (Candlish, 1987)	Enzymatic hydrol, Candlish, 1987
ME138	enzymatic hydrolysis (Anderson, 1988)	Enzymatic hydrol, Anderson, 1988
ME139	enzymatic hydrolysis (Mongeau, 1989)	Enzymatic hydrol, Mongeau, 1989

Code	Descriptor	Abbreviation
ME140	Enzymatic hydrolysis (AOAC, 1970)	Enzymatic hydrol, AOAC, 1970
ME141	Enzymatic hydrolysis (SCHWEIZER ET AL, 1979)	Enzymatic hydrol, Schweizer et al, 1979
ME142	Enzymatic hydrolysis (Rabe, 1987)	Enzymatic hydrol, Rabe, 1987
ME143	Enzymatic hydrolysis (LMBG 35, 1988)	Enzymatic hydrol, LMBG 35, 1988
ME144	Ether extraction + AOAC, 1980	Ether extrn + AOAC, 1980
ME145	Fluorimetry (AOAC, 1951)	Fluorim (AOAC, 1951)
ME146	Fluorimetry (AOAC, 1975)	Fluorim (AOAC, 1975)
ME147	Fluorimetry (AOAC, 1990)	Fluorim (AOAC, 1990)
ME148	Gravimetric - enzymatic method (AOAC, 1985)	Gravim enzym (AOAC, 1985)
ME149	HPLC (Dean, 1978)	HPLC (Dean, 1978)
ME150	HPLC +UV detection: Deutsch, 1990	HPLC >UV (Deutsch, 1990)
ME151	HPLC with fluorimetric detection (Finglas and Faulks, 1984)	HPLC> fluorim (Finglas et al, 1984)
ME152	HPLC (and Luff-Schoorl)	HPLC > Luff-Schoorl
ME153	HPLC (Mueller, 1993)	HPLC (Mueller, 1993)
ME154	HPLC (Shearer, 1986)	HPLC (Shearer, 1986)
ME155	HPLC, reverse phase with fluorimetric detection	HPLC, rev> fluorim
ME156	Merrill & Watt, 1975	Merrill & Watt (1975)
ME157	Microbiological assay (Bell, 1974)	Microbiol assay (Bell, 1974)
ME158	Microbiological assay (Phillips + Wright, 1983 – lactobacillus caseii)	Microbiol assay (lactobacillus caseii)
ME159	Microbiological assay (Osborne + Voogt, 1986)	Microbiol assay (Osborne et al, 1986)
ME160	Pancreatic method (Van de Kamer)	Pancreatic (Van de Kamer)
ME161	Polarimetry (Egan et al, 1981)	Polarim (Egan et al, 1981)
ME162	Spectrometry emission	Spectrom emission
ME163	titrimetry (AOAC, 1975)	Titrim (AOAC, 1975)
ME164	Gerber method (fat): used for milk products	Gerber-fat: milk products
ME165	Infrared oven 60-80°C (water)	IR oven 60-80
ME166	Summation, Sugar=-glucose, fructose, lactose, maltose	{ GLUS + FRUS + LACS + MALS }
ME167	*obsolete code, method headline not attributed anymore*	
ME168	Calculated, niacin equivalent = niacin + 1/60 tryptophan	{NIA + TRYPTO}
ME169	Summation, RE = retinol + 1/6 β-carotene	{RET + BETA}.2

Code	Descriptor	Abbreviation
ME170	Calculated, water = 100 - dry matter (only for imputed values)	{WAT}
ME171	air drying non specified	air drying, n. s.
ME172	HPLC, normal phase with fluorimetric detection	HPLC, nor> fluorim
ME173	Calculated, niacin equivalent = 30/100 niacin + 1/60 tryptophan	{NIA + TRYPTO} 2
ME174	Foss-Let Fat Analyser	Foss-Let
ME175	HPLC, reverse phase with UV detection	HPLC, rev> UV
ME176	Flame ionisation detection (Grahl-Nielsen & Barnung, 1985)	Flame detc. (Grahl-Nielsen)
ME177	Adsorption chromatography + UV detection	chrom + UV
ME178	Vacuum drying at 70°	Vacuum drying,70
ME179	AOAC, 1980 (for drying)	Dry (AOAC, 1980)
ME180	Padmore,1990 (for drying)	Dry (Padmore, 1990)
ME181	Weende method = AOAC, 1984	Weende (AOAC, 1984)
ME182	fractional cristallisation	Cristalln
ME183	microbiological assay (lactobacillus plantarum) for Biotin	Microbiol assay (lacto. plantarum)
ME184	microbiological assay (AOAC - streptoccus faecalis) for folic acid	Microbiol assay (streptoccus faecalis)
ME185	summation, folate = free + 0.2 bound folic acid	{free+0.2 bound}
ME186	Carr & Price, 1926 (Chromatography)	chrom (Carr & Price, 1926)
ME187	Chromatographic separation and absorption spectrophotometry	chrom + spectro
ME188	Summation, all-*trans* retinol equivalents = all-*trans* retinol + 0.75 13-*cis* retinol + 0.90 retinaldehyde	{RET+ALD}
ME189	Summation, retinol = *trans*-retinol + *cis*-retinol	{RETt+RETc}
ME190	Summation, 1 β-carotene equivalent = 1 β-carotene+ 2 α-carotene + 2 β-cryptoxanthin	{CAR+CRYPTO}
ME191	Summation, total carotenes= sum of carotenoids not adjusted for the relative activities	{CAROTS}
ME192	Summation, 1 β-carotene equivalent = 1 β-carotene + 2 α-carotene + 2 α-cryptoxanthin + 2 β-cryptoxanthin	{CAROTS}.2
ME193	Vitamin D3	{D3}
ME194	Vitamin D3 + 5x 25-hydroxy-vitamin D	{D3+hydroD}
ME195	HPLC +UV detection (non specified)	HPLC >UV
ME196	Flame atomic emission spectrometry (flame AES)	AES
ME197	HPLC, reversed phase and spectrophotometrische detection	HPLC, rev> spectrom
ME198	Summation, Vitamin A: retinol + RE from carotenoids (1 β-carotene + 2 α-carotene + 2 α-cryptoxanthin + 2 β-cryptoxanthin)	{RET+CAROTS}
ME199	Neutron activation	NEUTRON ACT
ME200	Summation of individual fatty acids	{SUM FA}
ME201	Fatty acid profile calculation	{FA PROFILE}
ME202	Calculated, water = 100 - total protein - total fat - carbohydrates- dietary fiber - alcohol	{100-PROT-FAT-CHO-FIBT-ALC}

Code	Descriptor	Abbreviation
ME203	Calculated, Dry matter = 100 - water	{ DRYMAT}
ME204	Calculated, polysaccharides = Carbohydrates - sugar	{CHO-SUGAR}
ME205	Calculated, sugar = Carbohydrates - polysaccharides	{CHO-POLYSAC}
ME206	Summation, total sugar = glucose + galactose + fructose + lactose + maltose + saccharose	{GLUS+GALS+FRUS+ LACS+MALS+SUCS}
ME207	Calculated, glucose = total sugar - galactose - fructose - lactose - maltose - saccharose	{SUGAR- GALS-FRUS-LACS-MALS-SUCS}
ME208	Calculated, galactose = total sugar - glucose - fructose - lactose - maltose - saccharose	{SUGAR- GLUS-FRUS-LACS-MALS-SUCS}
ME209	Calculated, fructose = total sugar - glucose - galactose - lactose - maltose - saccharose	{SUGAR- GALS-GLUS-LACS-MALS-SUCS}
ME210	Calculated, lactose = total sugar - glucose - galactose - fructose - maltose - saccharose	{SUGAR- GALS-FRUS-GLUS-MALS-SUCS}
ME211	Calculated, maltose = total sugar - glucose - galactose - fructose - lactose - saccharose	{SUGAR- GALS-FRUS-LACS-GLUS-SUCS}
ME212	Calculated, saccharose = total sugar - glucose -galactose - fructose – lactose - maltose	{SUGAR- GALS-FRUS-LACS-MALS-GLUS}
ME213	Calculated, carbohydrates = 100 - total protein - total fat - water – dietary fiber - alcohol – ash	{100-PROT-FAT-WATER-FIBT-ALC-ASH}
ME214	Calculated, monounsaturated fatty acids = total fat – saturated fatty acids – polyunsaturated fatty acids – trans fatty acids	{FAT-FASAT-FAPU-FATRN}
ME215	Calculated, polyunsaturated fatty acids = total fat - saturated fatty acids - monounsaturated fatty acids - trans fatty acids	{FAT-FASAT-FAMS-FATRN}
ME216	Calculated, saturated fatty acids = total fat - polyunsaturated fatty acids - monounsaturated fatty acids - trans fatty acids	{FAT-FAPU-FAMS-FATRN}
ME217	Calculated, Trans fatty acid = total fat - saturated fatty acids – monounsaturated fatty acids - polyunsaturated fatty acids	{FAT-FASAT-FAMS-FAPU}
ME218	Calculated; total fatty acids = total fat * fatty acid conversion factor	{FAT*FACF}
ME219	Σ total fatty acids (g) * % of individual fatty acids; fatty acid fraction calculation based on individual fatty acids	{FA FRACTION SUM}
ME220	Calculated, Plant protein = total protein - animal protein	{PROT-PROCAN}
ME221	Calculated, Animal protein = total protein - plant protein	{PROT-PROCPL}
ME222	Summation; total iron = haem iron + non haem iron	{HAEM+NHAEM}
ME223	Calculated, Non haem iron = total iron - haem iron	{FE-HAEM}
ME224	Calculated, Haem iron = total iron - non haem iron	{FE-NHAEM}
ME225	Calculated; RE: retinol + 0.17 * β-carotene + 0.08* α-carotene + 0.08* β-cryptoxanthin	{RETOL+CARTA+CARTB+CRYPX}
ME226	*obsolete code, method headline not attributed anymore*	
ME227	*obsolete code, method headline not attributed anymore*	
ME228	*obsolete code, method headline not attributed anymore*	
ME229	Amino acid profile calculation	{AA PROFILE}
ME230	Calculated, other polyunsaturated fatty acids= polyunsaturated fatty acids - F18:2 - F18:3	{FAPU-F18:2-F18:3}
ME231	Drying	Drying
ME232	Spectrography	Spectrography

Code	Descriptor	Abbreviation
ME233	Optical technique	Optical technique
ME234	Electrochemical technique	Electrochemical technique
ME235	Radiochemical technique	Radiochemical technique
ME236	Atomic emission spectroscopy	AES
ME237	calculated by factored contributions	{factored contributions}
ME238	Hydrolysis (chemical)	Hydrolysis (chemical)
ME239	Hydrolysis	Hydrolysis
ME240	Extraction	Extraction
ME241	Binding technique	Binding technique
ME242	Chromatography	Chromatography
ME243	Enzymic procedure	Enzymic procedure
ME244	Summation, total sugar = glucose + fructose + lactose + maltose + saccharose	{GLUS+FRUS+ LACS+MALS+SUCS}
ME245	summation, Starch= starch + glycogen	{starch+glycogen}
ME246	calculated, specific nitrogen conversion factor (modified FAO)	{modified FAO}
ME247	calculated, total carbohydrates = 100 - total protein - total fat - water - alcohol - ash	{100-PROT-FAT-WAT-ALC-ASH}
ME248	Calculated, retinol=RE-carotene/6	{RE-carotene/6}
ME249	Calculated, carotene=(RE-retinol)*6	{(RE-retinol)*6}
ME250	Acid digestion preparation of the sample, ascorbic acid method	
ME251	Acid digestion preparation of the sample	
ME252	acid hydrolysis of parent glycosides	
ME253	Dimethyl sulphoxide (DMSO) treatment	
ME254	Hexane extraction	
ME255	Glyceride transesterification with methanolic hydroxide solution	
ME256	turbidimetry	turbid
ME257	inductively coupled plasma atomic emission spectrophotometry (ICPAES)	ICPAES
ME258	calculated, specific nitrogen conversion factor (Jones)	{jones}
ME259	alcohol (ethanol) extraction	alcohextrn
ME260	thin layer chromatography	TLC
ME261	thiochrome method	thiochrom
ME262	Summation of individual fibre fractions	{SUM FIB}
ME263	calculated, carbohydrate = 100 - (nitrogen * 6.25) - total fat - water - dietary fiber (AOAC) - alcohol - minerals (Na,K,Ca,Mg,Fe,P,Cl)	{100-NT*6.25-FAT-W-FIBT-ALC-MIN}

* ME84 : Soxtec extraction may be indicated by including "Soxtec" as the first word of the METHVAL.METHDESC field

ANNEX 9: Publication Type

Source: EUROFOODS working group on data management and interchange[1].

Code	Descriptor	Scope note
B	Book	
AB	Article in book	
J	Journal	
AJ	Article in Journal	
R	Report	
AR	Article in Report	
AD	Authoritative Document	Document published by legal authorities, standards organisations, committees, patent offices, etc.
F	File or Database	
SW	Software	
WW	Website	The internet address (URL) of the file (WWW or FTP)
L	Product label	
P	Personal communication	Personal communication with no further bibliographic information but the reporters name and address.
PA	Pamphlet, folder	Product information from a producer or distributor that is not a Product label (L)
X	Publication type not known	
E	Other publication type	(E = else); other publication type not mentioned in this list

ANNEX 10: Common publication codes defined for the ENDB project

EPICREF	Food composition table
A01	UK McCANCE-4th, 1978
A02	UK McCANCE-5th, 1991
A03	UK McCANCE cereal,1988
A04	UK McCANCE vegetable,1991
A05	UK McCANCE milk,1989
A06	UK McCANCE meat,1995
A07	UK McCANCE meat-product,1996
A08	UK McCANCE fruit,1992
A09	UK McCANCE miscellaneous,1994
A10	UK McCANCE vegetable-dishes, 1992
A11	UK McCANCE fish,1993
A12	UK McCANCE-6th, 2002.
A13	UK McC_X-1 (any previous version)
A14	UK McC_X (version unknown)
A15	UK McCANCE fatty acids, 1998
A16	USDA H8 (1950)
A17	USDA table for standard references, 1976
A18	USDA H8:1-16 (1976-1988)
A19	USDA H8:1-20 (1978-1992)
A20	USDA H8:1-20 (1996) release 11
A21	USDA H8:1-20 (1997) release 11-1
A22	USDA release 12
A23	USDA release 13
A24	USDA_X-1 (any previous version)
A25	USDA_X (version unknown)
A26	DK 89
A27	DK 91
A28	DK 96
A29	DK 2000: www.foodcomp.dk October 2002.
A30	DK_X-1 (any previous version)
A31	DK_X (version unknown)
A32	FR 91
A33	FR 95. File version.
A34	FR exotfruit,1993
A35	FR fat,1987
A36	FR milk,1987
A37	FR mineral,1996
A38	FR brand,1997
A39	FR_X-1 (any previous version)
A40	FR_X (version unknown)
A41	SOUCI 86
A42	SOUCI 89/90
A43	SOUCI 94
A44	SOUCI_X-1 (any previous version)
A45	SOUCI_X (version unknown)
A46	FI FINKOST,1986
A47	IT IEO 98 Salvini et al.
A48	IT IEO (not yet available for distribution)
A49	IT IEO_X-1 (any previous version)
A50	IT IEO_X (version unknown)
A51	NL NEVO 86
A52	NL NEVO 93
A53	NL NEVO 96
A54	NL NEVO 2001

A55	NL NEVO_X-1 (any previous version)
A56	NL NEVO_X (version unknown)
A57	NO 95
A58	NO 2001.
A59	NO_X-1 (any previous version)
A60	NO_X (version unknown)
A61	SE 86
A62	SE 93
A63	SE_X-1 (any previous version)
A64	SE_X (version unknown)
A65	SE 96
A66	SE carbohydrates 96
A67	SE minerals 96
A68	SE fatty acids 96
A69	FI FINKOST 97
A70	FI FINKOST _X-1 (any previous version)
A71	FI FINKOST _X (version unknown)
A72	USDA release 14
A73	SE 2002
A74	GR 2003 (in press)
A75	Rastas M, Seppänen, R, Knuts L-R, Hakala P, Karttila V, eds. Nutrient Composition of foods. Turku: The Social Insurance Institution, Finland 1997. XLIII+372 pp.
A76	KTL (Finland) www.ktl.fi/fineli
A77	Souci 2000
A80	USDA release 15
A81	ES 98
A82	FR Dairy 2002
A83	USDA release 16

ANNEX 11: ISO language codes

Code	Descriptor
aa	Afar
ab	Abkhazian
af	Afrikaans
am	Amharic
ar	Arabic
as	Assamese
ay	Aymara
az	Azerbaijani
ba	Bashkir
be	Byelorussian
bg	Bulgarian
bh	Bihari
bi	Bislama
bn	Bengali; Bangla
bo	Tibetan
br	Breton
ca	Catalan
co	Corsican
cs	Czech
cy	Welsh
da	Danish
de	German
dz	Bhutani
el	Greek
en	English
eo	Esperanto
es	Spanish
et	Estonian
eu	Basque
fa	Persian
fi	Finnish
fj	Fiji
fo	Faeroese
fr	French
fy	Frisian
ga	Irish
gd	Scots Gaelic
gl	Galician
gn	Guarani
gu	Gujarati
ha	Hausa
hi	Hindi
hr	Croatian
hu	Hungarian
hy	Armenian
ia	Interlingua
ie	Interlingue
ik	Inupiak
in	Indonesian
is	Icelandic

Code	Descriptor
it	Italian
iw	Hebrew
ja	Japanese
ji	Yiddish
jw	Javanese
ka	Georgian
kk	Kazakh
kl	Greenlandic
km	Cambodian
kn	Kannada
ko	Korean
ks	Kashmiri
ku	Kurdish
ky	Kirghiz
la	Latin
ln	Lingala
lo	Laothian
lt	Lithuanian
lv	Latvian, Lettish
mg	Malagasy
mi	Maori
mk	Macedonian
ml	Malayalam
mn	Mongolian
mo	Moldavian
mr	Marathi
ms	Malay
mt	Maltese
my	Burmese
na	Nauru
ne	Nepali
nl	Dutch
no	Norwegian
oc	Occitan
om	(Afan) Oromo
or	Oriya
pa	Punjabi
pl	Polish
ps	Pashto, Pushto
pt	Portuguese
qu	Quechua
rm	Rhaeto-Romance
rn	Kirundi
ro	Romanian
ru	Russian
rw	Kinyarwanda
sa	Sanskrit
sd	Sindhi
sg	Sangro
sh	Serbo-Croatian
si	Singhalese
sk	Slovak
sl	Slovenian
sm	Samoan

Code	Descriptor
sn	Shona
so	Somali
sq	Albanian
sr	Serbian
ss	Siswati
st	Sesotho
su	Sudanese
sv	Swedish
sw	Swahili
ta	Tamil
te	Tegulu
tg	Tajik
th	Thai
ti	Tigrinya
tk	Turkmen
tl	Tagalog
tn	Setswana
to	Tonga
tr	Turkish
ts	Tsonga
tt	Tatar
tw	Twi
uk	Ukrainian
ur	Urdu
uz	Uzbek
vi	Vietnamese
vo	Volapuk
wo	Wolof
xh	Xhosa
yo	Yoruba
zh	Chinese
zu	Zulu

ANNEX 12: MODALITIES FOR THE "ORIGIN" VARIABLE

- Animal origin (**code A**)	= Foods of 100% animal origin
- Plant origin (**code P**)	= Foods of 100% plant origin
- Mixed origin, with predominance of animal origin (**new code MA**) (*) (e.g. ingredients of plant origin in marginal amounts, e.g. starches or other vegetable bindings added to meat products)	= Foods of ≥ 95% animal origin
- Mixed origin, with predominance of plant origin (**new code MP**) (*) (e.g. ingredients of animal origin in marginal amounts such as eggs, gelatine or other animal bindings added to vegetable products)	= Foods of ≥ 95% plant origin
- Mixed origin, with different proportions of animal/plant origin other than those in MA and MP (**New code MV)** (*)	= Foods of both animal and plant origins where the proportions are either unknown or different than those reported for MA and MP
- Non-organic foods (**code N**)	= Foods of neither animal or plant origin (e.g. water, sweeteners, etc)
- Unknown Foods (**code U**)	= Foods for which the origin (animal, plant or both) is unknown. This modality (U) differs from the modality (MV) because not only the proportions of plant or animal ingredients are unknown but also the actual origin (i.e. one don't know whether the food is from animal, plant or both origins). Relatively few foods should have the code U as compared to MV. However, this modality should also be used to code food difficult to classify with the current modalities.

(*): New modalities/codes added. The modality "mixed origin" (**previous code M**) has been deleted and slipped into three modalities (MA, MP, MV)

Some suggestions on how to code particular foods:

- Wine, liquors	→ Plant origin (P)
- Sugar	→ Plant origin (P)
- Breads	→ Plant origin (P)
- Breads (with little fat or milk, less 5%	→ Mixed origin, predominance plant (MP)
- Biscuits, cakes (with relative high animal origin ingredients, e.g. fats, eggs, milk or other dairy products)	→ Mixed origin, with different proportions (MV)
- Honey	→ Animal origin (A)
- Yeast	→ Plant origin (P)
- Soup cube, meat	→ Mixed origin, predominance animal (MA)
- Soup cube, vegetables	→ Mixed origin, predominance plant (MP)
- Soft drinks (with sugar)	→ Plant origin (P)
- Soft drinks (with sweeteners)	→ Non organic origin (N)
- Chocolate plain	→ Plant origin (P)
- Chocolate, milk	→ Mixed origin, predominance plant (if P ≥ 95%) (MP) or Mixed origin, with different proportion (MV) if the cumulative proportion of animal origin ingredients is higher than 5%.
- Most Recipes and commercial/processed foods (e.g. processed meat/fish, some dairy products, soups, cakes, biscuits, etc..)	→Mixed origin, predominance plant (MP) or animal (MA) (if the proportion of ingredients of plant <u>or</u> animal origin is ≥ 95%) → Or Mixed origin, with different proportion (MV) if the cumulative proportion of animal <u>or</u> plant origin ingredients is higher than 5%.