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The EuroFIR Thesauri 2008

Edited by

Anders Møller, Ian D. Unwin, Jayne Ireland, Mark A. Roe, Wulf Becker, Paolo Colombani
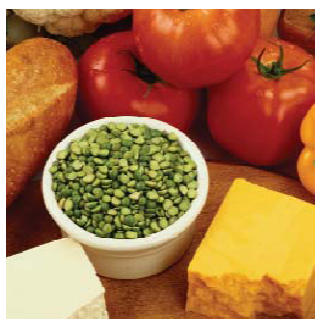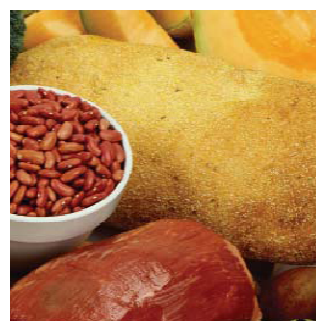
Disclaimer

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EuroFIR, the world leading European Network of Excellence on Food Composition Databank systems (http://www.eurfir.net/) is a partnership between 49 universities, research institutes and small-to-medium sized enterprises (SMEs) from 26 countries. EuroFIR aims to develop and integrate a comprehensive, coherent and validated databank providing a single, authoritative source of food composition data for Europe.

EuroFIR Project Management Office
Institute of Food Research, Norwich Research Park
Norwich, Norfolk, NR4 7UA, UK

THE EUROFIR THESAURI 2008

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ANDERS MØLLER
IAN D. UNWIN
JAYNE IRELAND
MARK A. ROE
WULF BECKER
PAOLO COLOMBANI

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A great deal of additional information on the EuroFIR project is available on the Internet. It can be accessed through the EuroFIR server (http://www.eurofir.net/).

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The EuroFIR Thesauri 2008

Contents:

1   STANDARD VOCABULARIES

A set of standard vocabularies (thesauri) was defined within the COST Action 99 / EURO-FOODS recommendations for data interchange and management and further amended in the EPIC data interchange project. Each thesaurus consists of a set of concepts that may be arranged within a hierarchy. A concept is represented by a main descriptor – a term representing the concept – and is generally further described with a scope note, additional information, synonyms and related terms.

All thesauri are available on the EuroFIR technical website and updated regularly. Rules for updating will be developed.

The thesauri can found at http://eurofir.org/eurofir/EuroFIRThesauri.asp.

1.1   THESAURUS LANGUAGE

The official thesauri will use English as their main language. It is up to each user to translate thesauri for local usage. However, it is recommended to establish a central authority within each country, or group of countries with the same language(s), to maintain and publish translations.

EuroFIR will keep track of existing translations and provide links to this information on the Internet. EuroFIR has created an eThesaurus server, which holds the EuroFIR and LanguaL thesauri.

1.2   CONCEPT DESCRIPTION

The following fields are given for each concept within a thesaurus. Code and Descriptor are required, while other fields are *optional*. However, in most cases it is necessary to give additional information in order to unambiguously define and describe a concept and scope notes to describe the use of the concept.

Concept property	Description
Code	A unique and short alphanumeric code identifying each concept. The code is mainly used in data interchange package and does not necessarily need to be self-explaining. Codes are *not* case sensitive. Codes are kept unchanged when translating a thesaurus.
Descriptor	A text-string describing the concept. This string, like the code, must be unique since it is the representation of the code to the user and is the **preferred** term for the concept.

Concept property	Description
Scope Note	A note attached to a descriptor to indicate its meaning within the indexing language, i.e. any specialities to be considered when applying the concept (e.g. exceptions, relation to other concepts, further clarifications and definitions).
Additional Information	A note attached to a descriptor to provide further definitions of encyclopaedic nature and links to authoritative sources (e.g. GRIN, Mansfeld, CAS, ChEBI).
Synonyms	Synonymous text strings that express **exactly the same** concept as the descriptor and help people to find a concept (e.g. vitamin B1 and thiamin). Synonyms are usually written lower case.
Related terms	Word or phrase that means **nearly the same** as the preferred term in the same language.

Dates of entry and changes (as well as "in-aktivation" when a term becomes non-preferred) are logged at the descriptor level.

The thesauri are displayed in four different 'displays'

- **Alphanumerical display**
  Display of terms by the alphanumerical code (code, descriptor, scope note, additional information)

- **Alphabetical display**
  Display of terms alphabetically (descriptor, code, broader term, scope note, additional information) including synonyms (non-descriptors) and related terms)

- **Systematic display ('tree display')**
  Display of the tree structure of the thesaurus (descriptor and code)

- **XML format**
  Display defined as EuroFIR Standard Vocabulary entity. This display is for use in IT-systems.

For simplicity, the EuroFIR thesauri are only shown in alphanumerical display in the following thesaurus descriptions.
For the other displays, refer to the EuroFIR Technical Website's thesauri section (http://eurofir.org/eurofir/EuroFIRThesauri.asp), where all displays are available.

2 THE EUROFIR THESAURI

The following sections describe in detail the EuroFIR thesauri.

2.1 ACQUISITION TYPE THESAURUS, VERSION 1.0

The Acquisition Type gives categories for the origin of a value, i.e. from where the compiler obtained the data.

An Acquisition Type term is assigned to a reference or to a component value. It describes the origin of the information reported, in particular with regard to the food composition values included. The origin of the data reported (or the individual value) may be the host system (compiled data), scientific literature or analytical results obtained in a variety of circumstances.

The descriptors defined in the Acquisition Type thesaurus, version 1.0 are

Code	Descriptor	Scope Note	Additional information
A	Authoritative Document	Use for documents published by legal authorities, standards organisations, committees, patent offices, etc.	Moved from Reference Type Thesaurus.
C	Scientific communication	Use for published articles, reports, posters, letters, etc. not known to be peer reviewed.	
D	Independent laboratory	Laboratory report/protocol of a third party laboratory not affiliated with the food producer or the data compiler.	Changed from "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."
E	Other acquisition type	Other Acquisition Type not defined in this thesaurus. Use of this term should be avoided, if used only with great caution. See also Additional Information.	E = else. Except for its use specified in a EuroFIR thesaurus or guidelines, please inform the maintainer of this thesaurus of the circumstances requiring the use of E in case a new Acquisition Type should be defined.
F	Food composition table	Compiled food composition table(s), database(s) or dataset(s) under the responsibility of a compiler.	
I	Industry laboratory	Laboratory report/protocol of a food producer or distributor.	
L	Food label, product information	Use for food label or product information provided by the producer or distributor with no further information about the data sources.	

Code	Descriptor	Scope Note	Additional information
O	In-house or affiliated laboratory	In-house or affiliated laboratory report/protocol. Study design, sampling, and analysis are under direct control of the person or organisation compiling the food composition data.	O = own data. This Acquisition Type changes, normally to ';F';, when a dataset from a food composition table is interchanged.
P	Published and peer reviewed scientific paper	Use for a peer reviewed scientific study, published in a journal or book.	
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.	This Acquisition Type changes, normally to ';F';, when a dataset from a food composition table is interchanged.
X	Acquisition type not known	Use this descriptor if the Acquisition Type for the given value or publication is not known.	

2.2 REFERENCE TYPE THESAURUS, THESAURUS, VERSION 1.0

Gives details of bibliographical references describing documents that are sources of data for a value, method, recipe, etc.

The name of this thesaurus has been changed from Publication Type (Eurofoods) to Refe¬ren¬ce Type (EuroFIR).

A Reference Type term is assigned to a reference to indicate the form in which it was published or produced. The terms include generally applicable types such as journal article, book and report, and also types more specific to foods, such as labels. Documents assigned as these types might also be available in electronic form, but other electronic forms have no direct printed equivalents. Thus some Reference Type codes refer specifically to electronic forms, whereas electronic publication of traditional forms such as journals and books should be assigned the code appropriate to that form.

The descriptors defined in the Reference Type thesaurus, version 1.0 are

Code	Descriptor	Scope Note	Additional information
AB	Article in book	Used either for a separate section of a book, often with its own authors separate from the overall editors of the book, or to cite a chapter within a book.	
AJ	Article in Journal		More normally called "Journal article"
AR	Article in Report		
B	Book		
E	Other reference type	Other reference type not defined in this thesaurus. Use of this term should be avoided, if used only with great caution. See also Additional Information.	E = else. Except for its use specified in a EuroFIR thesaurus or guidelines, please inform the maintainer of this thesaurus of the circumstances requiring the use of E in case a new reference type should be defined.

Code	Descriptor	Scope Note	Additional information
F	File or Data-base	Use for electronic files received through any medium (physical disk, FTP, etc.), including files retrieved through a webpage. If the reference is to data displayed directly on a webpage, i.e. delivered in HTML format, the Publication Type is "WW". Files that are compiled food composition databases or inter-change files are assigned Acquisi-tion Type "F". If the file is in PDF format and represents a biblio-graphic reference with its own Publi-cation Type, it is assigned that Pub-lication Type, with its form of delivery indicated by a URL or Remark.	
JI	Journal issue	Use with extreme caution. This de-scriptor refers to a complete journal issue, perhaps a special issue of conference proceedings. To be used, if information - e.g. author, title or pages - for the more specific de-scriptor *Article in Journal [AJ]* is not available.	
L	Product label	Use for a reference to data taken from the nutritional data section of a food label.	
P	Personal com-munication	Personal communication with no further bibliographic information but the reporter';s name and address.	
PA	Pamphlet, folder	Use for a reference to product in-formation from a producer or dis-tributor that is NOT taken from a food label. Food label information should be indexed *Product label [L]*.	
R	Report		
SW	Software		
WW	Webpage	Use for a reference to data retrieved either through a static webpage or an active webpage displaying data extracted by the server from a data-base. For an active webpage, the URL recorded may include the search parameters, if known.	
X	Reference type not known	Use when the reference type for the given value is not known.	

2.3 COMPONENT THESAURUS, VERSION 1.0

The Component thesaurus contains descriptors (identifiers) that are used to identify the component or physico-chemical property to which the reported value relates. The thesaurus entry includes the corresponding component name, a scope note to define usage of the term and additional information, for example the ChEBI identifier (linking to the EBI Chemical Entities of Biological Interest database) and the INFOODS tagname. The Component thesaurus is organised into a hierarchy that uses group headings that are not used to identify components for individual compositional values. A term or group heading may be linked to more than one parent term in the hierarchy. The Component thesaurus includes descriptors for measurable properties such as density and edible proportion so that their values can also be reported using the Value entity.

The descriptors defined in the Component thesaurus, version 1.0 are

Code	Descriptor	Scope Note	Additional information
AAA	amino acids, total aromatic		<INFOODS>AAA
AAE-	amino acids, total essential; unknown which aa are included		<INFOODS>AAE-
AAE10B	amino acids, total essential; eight es-sential amino acids + CYS and TYR		<INFOODS>AAE10B
AAS	amino acids, total sulphur-containing		<INFOODS>AAS
AAT-	amino acids, total; precise definition not specified		<INFOODS>AAT-
ALC	alcohol (ethanol)	Use for ethanol only	<ChEBI>16236 <INFOODS>ALC
AMMON	ammonia		<ChEBI>16134 <INFOODS>AMMON
AMYP	amylopectin		<ChEBI>28057 <INFOODS>AMYP
AMYS	amylose		<ChEBI>28102 <INFOODS>AMYS
APIGEN	apigenin		<INFOODS>APIGEN
ARAS	arabinose	Use for L-Arabinose only; includes only the free mono-saccharide.	<ChEBI>30849 <INFOODS>ARAS

Code	Descriptor	Scope Note	Additional information
ARG	arginine	Use only for L-arginine	<ChEBI>16467 <INFOODS>ARG
AS	arsenic	Use for total arsenic	<ChEBI>27563 <INFOODS>AS
ASCDL	L-dehydroascorbic acid		<ChEBI>27956 <INFOODS>ASCDL
ASCL	L-ascorbic acid		<ChEBI>29073 <INFOODS>ASCL
ASH	ash (minerals)	Used for ash determined analytically, not the sum of individual minerals	<INFOODS>ASH
ASN	asparagine	Use only for L-asparagine	<ChEBI>17196 <INFOODS>ASN
ASP	aspartic acid	Use only for L-aspartic acid	<ChEBI>17053 <INFOODS>ASP
ASPM	aspartam		<INFOODS>ASPM Artificial sweetener
AVED5	delta 5-avenasterol (delta 5-avenastenol)		<INFOODS>AVED5
AVED7	delta 7-avenasterol (delta 7-avenastenol)		<INFOODS>AVED7
AVEDT	avenasterol, total		<INFOODS>AVEDT
B	boron	Used for total boron	<ChEBI>27560 <INFOODS>B
BENAC	benzoic acid		<ChEBI>30746 <INFOODS>BENAC
BIOCHA	biochanin A		<INFOODS>BIOCHA
BIOT	biotin		<ChEBI>15956 <INFOODS>BIOT
BRASTR	brassicasterol		<INFOODS>BRASTR
BRD	bromide	Used for total bromine as bromide and other compounds	<ChEBI>22927 <INFOODS>BRD
CA	calcium	Used for total calcium	<ChEBI>22984 <INFOODS>CA
CADAVT	cadaverine		<INFOODS>CADAVT
CAFFN	caffeine		<INFOODS>CAFFN
CAMD5	delta 5-campesterol (delta 5-campestenol)		<ChEBI>36799 <INFOODS>CAMD5
CAMD7	delta 7-campesterol (delta 7-campestenol)		<INFOODS>CAMD7
CAMT	campesterol, total		<INFOODS>CAMT
CANTHAX	canthaxanthine		<INFOODS>CANTHAX
CAPSA	capsanthine		

Code	Descriptor	Scope Note	Additional information
CAROT	carotene, total (vitamin A precursors)		<INFOODS>CAROT
CAROTENS	carotenoids, total		<INFOODS>CAROTENS
CARTA	alpha-carotene	Also use for stereospecific form (+)-alpha-carotene	<ChEBI>28425 <INFOODS>CARTA
CARTB	beta-carotene		<ChEBI>17579 <INFOODS>CARTB
CARTBEQ	beta-carotene equivalents (provitamin A carotenoids)		<INFOODS>CARTBEQ
CARTG	gamma-carotene		<ChEBI>27740 <INFOODS>CARTG
CASN	casein	Use for phosphoproteins precipitated from skim milk at pH 4.6 and 20 deg C	<INFOODS>CASN
CATEC	catechin		<INFOODS>CATEC
CD	cadmium	Used for total cadmium	<ChEBI>22977 <INFOODS>CD
CELLU	cellulose		<INFOODS>CELLU
CHEMSC	chemical score		<INFOODS>CHEMSC
CHIAC	quinic acid	Use for the L or (-) isomer	<ChEBI>17521 <INFOODS>QUINAC
CHLMP	phosphatidyl choline (lecithin)		<ChEBI>16110 <INFOODS>CHLNP
CHO	carbohydrate	Used for total available carbohydrates	<INFOODS>CHOAVL Includes free sugars, polyols and dextrins, starch, and glycogen.
CHOCAL	cholecalciferol	Use for vitamin D3	<ChEBI>28940 <INFOODS>CHOCAL
CHOCALOH	25-hydroxycholecalciferol	Use for 25-hydroxy vitamin D3	<ChEBI>17933 <INFOODS>CHOCALHY
CHOLM	24-methylcholest-7-erol		<INFOODS>CHOLM
CHOLN	choline	Trimethyl(hydroxyethyl)ammonium cation	<ChEBI>15354
CHORL	cholesterol		<ChEBI>16113 <INFOODS>CHOL-
CHOT	carbohydrate, total		<ChEBI>23008 <INFOODS>CHO-
CHOU	carbohydrates, unspecified		
CITAC	citric acid	Use for 2-hydroxy-1,2,3-propanetricarboxylic acid	<ChEBI>30769 <INFOODS>CITAC

Code	Descriptor	Scope Note	Additional information
CLD	chloride	Use for total chlorine as chloride and other compounds	<ChEBI>23116 <INFOODS>CLD
CO	cobalt	Use for total cobalt	<ChEBI>27638 <INFOODS>CO
CO2F	carbon dioxide, free		<ChEBI>16526 <INFOODS>CO2F
COLG	collagen		<INFOODS>COLG
COUMEST	coumestrol		<INFOODS>COUMEST
CR	chromium	Use for total chromium	<ChEBI>28073 <INFOODS>CR
CREATN	creatine/creatinine		<INFOODS>CREATN
CRYPX	cryptoxanthins	Use for total cryptoxanthins or when specific form is unknown	<INFOODS>CRYPX 3-Hydroxy derivatives of carotenes
CRYPXA	alpha-cryptoxanthin		<ChEBI>10223
CRYPXB	beta-cryptoxanthin		<ChEBI>10362
CU	copper	Use for total copper	<ChEBI>28694 <INFOODS>CU
CYCL	cyclamate		<INFOODS>CYCL Non-nutritive sweetener, also used as the calcium salt
CYS	cystine	Use only for L-cystine	<ChEBI>16283 <INFOODS>CYS
CYSTE	cysteine	Use only for L-cysteine	<ChEBI>17561 Cysteine is converted to cystine during chromatography
DAIDZE	daidzein		<INFOODS>DDZEIN
DEN	density/specific gravity		<INFOODS>DEN
DEXTN	dextrins		<ChEBI>23652 <INFOODS>DEXTN
DISAC	disaccharides, total	Use for total free disaccharides	<ChEBI>36233 <INFOODS>DISAC
DOPN	dopamine		<INFOODS>DOPN
DRYMAT	dry matter		<INFOODS>DM
EDIBLE	edible portion		<INFOODS>EDIBLE
ENERA	energy, gross, determined by direct analysis		<INFOODS>ENERA
ENERC	energy, total metabolisable; calculated from energy-producing food components	Use for energy calculated from energy-contributing components	<INFOODS>ENERC Information on the calculation is recorded through the Method Indicator and contributing values present in the dataset

Code	Descriptor	Scope Note	Additional information
EPICATEC	epicatechin		<INFOODS>EPICATEC
ERGCAL	ergocalciferol	Use for vitamin D2	<ChEBI>28934 <INFOODS>ERGCAL
ERGSTR	ergosterol	Use for provitamin D2	<ChEBI>16933 <INFOODS>ERGSTR
F10:0	fatty acid 10:0 (capric acid)		<ChEBI>30813 <INFOODS>F10D0
F10:1	fatty acid 10:1	Use for total 10:1 or if isomer unknown	<INFOODS>F10D1
F10:1CIS	fatty acid 10:1 cis	Use for total cis-decenoic acids	Previous code F10:1C
F10:1CN1	fatty acid 10:1 (caproleic acid)	Use for caproleic acid (9-decenoic acid)	<ChEBI>32381
F10:1TRS	fatty acid 10:1 trans	Use for total trans-decenoic acids	Previous code F10:1T
F11:0	fatty acid 11:0		<ChEBI>32368
F12:0	fatty acid 12:0 (lauric acid)		<ChEBI>30805 <INFOODS>F12D0
F12:1	fatty acid 12:1	Use for total 12:1 or if isomer unknown	<INFOODS>F12D1
F12:1CIS	fatty acid 12:1 cis	Use for total cis-dodecenoic acids	Previous code F12:1C
F12:1CN3	fatty acid 12:1 (lauroleic acid)	Use for lauroleic acid (9-decenoic acid)	Isomers are sometimes named as 11-lauroleic acid (11-dodecenoic acid), etc.
F12:1T	fatty acid 12:1 trans	Use for total trans-dodecenoic acids	Previous code F12:1T
F13:0	fatty acid 13:0 (tridecanoic acid)		<ChEBI>39247 <INFOODS>F13D0
F13:0I	fatty acid 13:0 iso (iso-tridecanoic acid)		11-Me C12:0
F14:0	fatty acid 14:0 (myristic acid)		<ChEBI>28875 <INFOODS>F14D0
F14:0AI	fatty acid 14:0 anteiso		
F14:0I	fatty acid 14:0 iso		<ChEBI>39249 12-Me C13:0
F14:1	fatty acid 14:1	Use for total 14:1 or if isomer unknown	<INFOODS>F14D1
F14:1CIS	fatty acid 14:1 cis	Use for total cis-tetradecenoic acids	
F14:1CN5	fatty acid 14:1 (myristoleic acid)	Use for myristoleic acid (cis-9-tetradecenoic acid)	<ChEBI>27781
F14:1TN5	fatty acid 14:1 trans (myristelaidic acid)	Use for myristelaidic acid (trans-9-tetradecenoic acid)	

Code	Descriptor	Scope Note	Additional information
F15:0	fatty acid 15:0 (pentade-cylic acid)		\<ChEBI\>39108 \<INFOODS\>F15D0
F15:0AI	fatty acid 15:0 anteiso		\<ChEBI\>39251 12-Me C14:0
F15:0I	fatty acid 15:0 iso		\<ChEBI\>39250 13-Me C14:0
F15:1	fatty acid 15:1 (pentade-cenoic acid)	Use for total 15:1 or if iso-mer unknown	\<INFOODS\>F15D1
F15:1CN8	fatty acid 15:1 n-8 cis		
F15+17	fatty acid 15:0 + 17:0		
F16:0	fatty acid 16:0 (palmitic acid)		\<ChEBI\>15756 \<INFOODS\>F16D0
F16:0AI	fatty acid 16:0 anteiso		
F16:0I	fatty acid 16:0 iso		14-Me C15:0
F16:1	fatty acid 16:1	Use for total 16:1 or if iso-mer unknown	\<ChEBI\>24548 \<INFOODS\>F16D1
F16:1CIS	fatty acid 16:1 cis	Use for total cis-hexadecenoic acids	\<INFOODS\>F16D1C
F16:1CN5	fatty acid 16:1 n-5 cis	Use for cis-11-hexadecenoic acid	Redefined as cis; previous code F16:1N5
F16:1CN7	fatty acid 16:1 n-7 cis (palmitoleic acid)	Use for palmitoleic acid (cis-9-hexadecenoic acid)	\<ChEBI\>28716
F16:1CN9	fatty acid 16:1 n-9 cis	Use for cis-7-hexadecenoic acid	Redefined as cis; previous code F16:1N9
F16:1I	fatty acid 16:1 iso	Use for 14-methylpentadecenoic acid with any position and con-figuration of double bond	
F16:1R	fatty acid 16:1 remainder	Use for the total of 16:1 iso-mers not reported as spe-cific isomers	
F16:1TN7	fatty acid 16:1 n-7 trans	Use for palmitelaidic acid (trans-9-hexadecenoic acid)	
F16:1TRS	fatty acid 16:1 trans	Use for total trans-hexadecenoic acids	\<INFOODS\>F16D1T
F16:2	fatty acid 16:2		
F16:3	fatty acid 16:3		
F16:4	fatty acid 16:4		
F16:UN	fatty acid 16:unidentified		
F17:0	fatty acid 17:0 (margaric acid)		\<ChEBI\>32365 \<INFOODS\>F17D0
F17:0AI	fatty acid 17:0 anteiso		14-Me C16:0
F17:0I	fatty acid 17:0 iso		15-Me C16:0

Code	Descriptor	Scope Note	Additional information
F17:1	fatty acid 17:1 (heptade-cenoic acid)	Use for total 17:1 or if iso-mer unknown	<INFOODS>F17D1
F17:1CN8	fatty acid 17:1 n-8 cis	Use for cis-9-heptadecenoic acid	
F18:0	fatty acid 18:0 (stearic acid)		<ChEBI>28842 <INFOODS>F18D0
F18:0AI	fatty acid 18:0 anteiso		15-Me C17:0
F18:0I	fatty acid 18:0 iso		16-Me C17:0
F18:1	fatty acid 18:1 (octadece-noic acid)	Use for total 18:1 or if iso-mer unknown	<ChEBI>25634 <INFOODS>F18D1
F18:1CIS	fatty acid 18:1 cis	Use for total cis-octadecenoic acids	<INFOODS>F18D1C
F18:1CN10	fatty acid 18:1 n-10 cis	Use for cis-8-octadecenoic acid	
F18:1CN11	fatty acid 18:1 n-11 cis	Use for cis-7-octadecenoic acid	
F18:1CN12	fatty acid 18:1 n-12 cis	Use for cis-6-octadecenoic acid	<ChEBI>28194
F18:1CN13	fatty acid 18:1 n-13 cis	Use for cis-5-octadecenoic acid	
F18:1CN3	fatty acid 18:1 n-3 cis	Use for cis-15-octadecenoic acid	
F18:1CN4	fatty acid 18:1 n-4 cis	Use for cis-14-octadecenoic acid	
F18:1CN5	fatty acid 18:1 n-5 cis	Use for cis-13-octadecenoic acid	
F18:1CN6	fatty acid 18:1 n-6 cis	Use for cis-12-octadecenoic acid	
F18:1CN7	fatty acid 18:1 n-7 cis	Use for cis-11-octadecenoic acid	<ChEBI>30826
F18:1CN8	fatty acid 18:1 n-8 cis	Use for cis-10-octadecenoic acid	
F18:1CN9	fatty acid 18:1 n-9 cis (oleic acid)	Use for cis-9-octadecenoic acid	<ChEBI>16196 <INFOODS>F18D1CN9
F18:1I	fatty acid 18:1 iso	Use for 16-methylheptadecenoic acid with any position and con-figuration of double bond	
F18:1N9O	fatty acid 18:1 OH n-7 (ricinoleic acid)	Use for 12-hydroxy-cis-9-octadecenoic acid	<ChEBI>28592
F18:1R	fatty acid 18:1 remainder	Use for the total of 18:1 iso-mers not reported as spe-cific isomers	
F18:1TN10	fatty acid 18:1 n-10 trans	Use for trans-8-octadecenoic acid	

Code	Descriptor	Scope Note	Additional information
F18:1TN11	fatty acid 18:1 n-11 trans	Use for trans-7-octadecenoic acid	
F18:1TN12	fatty acid 18:1 n-12 trans	Use for trans-6-octadecenoic acid	<ChEBI>30829
F18:1TN2	fatty acid 18:1 n-2 trans	Use for trans-16-octadecenoic acid	
F18:1TN3	fatty acid 18:1 n-3 trans	Use for trans-15-octadecenoic acid	
F18:1TN4	fatty acid 18:1 n-4 trans	Use for trans-14-octadecenoic acid	
F18:1TN5	fatty acid 18:1 n-5 trans	Use for trans-13-octadecenoic acid	
F18:1TN6	fatty acid 18:1 n-6 trans	Use for trans-12-octadecenoic acid	
F18:1TN7	fatty acid 18:1 n-7 trans	Use for trans-11-octadecenoic acid	<ChEBI>28727
F18:1TN8	fatty acid 18:1 n-8 trans	Use for trans-10-octadecenoic acid	
F18:1TN9	fatty acid 18:1 trans n-9 (elaidic acid)	Use for trans-9-octadecenoic acid	<ChEBI>27997 <INFOODS>F18D1TN9
F18:1TNO	fatty acid 18:0 dihy-droxyoctadecanoic acid	Use for total dihydroxyocta-decanoic acid or if isomer unknown	
F18:1TRS	fatty acid 18:1 total trans	Use for total trans-octadecenoic acids	<INFOODS>F18D1T
F18:2	fatty acid 18:2		
F18:2CN6	fatty acid 18:2 cis,cis n-6		<ChEBI>17351 <INFOODS>F18D2CN6
F18:2CN9	fatty acid 18:2 n-9 cis		
F18:2CON	fatty acid 18:2 conjugated		
F18:2CT	fatty acid 18:2 cis + trans		
F18:2ISO	fatty acid 18:2 iso		
F18:2R	fatty acid 18:2 remainder		
F18:2TC	fatty acid 18:2 trans + cis		
F18:2TN	fatty acid 18:2 trans		
F18:2TTN6	fatty acid 18:2 n-6 trans,trans		<INFOODS>F18D2TN6
F18:3	fatty acid 18:3		<INFOODS>F18D3
F18:3CN3	fatty acid 18:3 n-3 cis		<ChEBI>27432 <INFOODS>F18D3CN3
F18:3CN6	fatty acid 18:3 n-6 cis		
F18:3N3	fatty acid 18:3 cis,cis,cis n-3		<INFOODS>F18D3N3

Code	Descriptor	Scope Note	Additional information
F18:3N6	fatty acid 18:3 n-6 (gamma-linolenic acid)		<INFOODS>F18D3N6
F18:3TTTN3	fatty acid 18:3 n-3 trans,trans,trans		
F18:4	fatty acid 18:4 (stearidonic acid)		<INFOODS>F18D4
F18:4CN3	fatty acid 18:4 n-3 cis		
F18:4N3	fatty acid 18:4 n-3 (parinaric acid)		<INFOODS>F18D4N3
F19:0	fatty acid 19:0		<ChEBI>39246 <INFOODS>F19D0
F20:0	fatty acid 20:0 (arachidic acid)		<ChEBI>28822 <INFOODS>F20D0
F20:0I	fatty acid 20:0 iso		18-Me C19:0
F20:1	fatty acid 20:1 (eicosenoic acid)	Use for total 20:1 or if isomer unknown	<INFOODS>F20D1
F20:1CIS	fatty acid 20:1 cis	Use for total cis-eicosenoic acids	
F20:1CN11	fatty acid 20:1 n-11 cis	Use for cis-9-eicosenoic acid	<ChEBI>32419
F20:1CN9	fatty acid 20:1 n-9 cis	Use for cis-11-eicosenoic acid	<ChEBI>32425
F20:1TN11	fatty acid 20:1 n-11 trans	Use for trans-9-eicosenoic acid	<ChEBI>32422
F20:1TN9	fatty acid 20:1 n-9 trans	Use for trans-11-eicosenoic acid	
F20:1TRS	fatty acid 20:1 trans	Use for total trans-eicosenoic acids	
F20:2	fatty acid 20:2 (eicosadienoic acid)		<INFOODS>F20D2
F20:2CN6	fatty acid 20:2 n-6 cis		<INFOODS>F20D2CN6
F20:2N6	fatty acid 20:2 n-6		<INFOODS>F20D2N6
F20:3	fatty acid 20:3 (eicosatrienoic acid)		<INFOODS>F20D3
F20:3CN3	fatty acid 20:3 n-3 cis		
F20:3CN6	fatty acid 20:3 n-6 cis		
F20:3CN9	fatty acid 20:3 n-9 cis		
F20:3N3	fatty acid 20:3 n-3		<INFOODS>F20D3N3
F20:3N6	fatty acid 20:3 n-6		<INFOODS>F20D3N6
F20:4	fatty acid 20:4 (eicosatetraenoic acid)		<INFOODS>F20D4
F20:4CN6	fatty acid 20:4 n-6 cis		
F20:4N3	fatty acid 20:4 n-3		<INFOODS>F20D4N3

Code	Descriptor	Scope Note	Additional information
F20:4N6	fatty acid 20:4 n-6 (ara-chidonic acid)		<INFOODS>F20D4N6
F20:5	fatty acid 20:5 (eicopen-taenoic acid)		<INFOODS>F20D5
F20:5CN3	fatty acid 20:5 n-3 cis		
F20:5N3	fatty acid 20:5 n-3 (tim-nodonic acid)		<INFOODS>F20D5N3
F20:5N6	fatty acid 20:5 n-6		
F21:0	fatty acid 21:0		<ChEBI>39248 <INFOODS>F21D0
F21:5	fatty acid 21:5 (henei-cosapentaenoic acid)		
F21:5N3	fatty acid 21:5 n-3 (henei-cosapentaenoic acid)		<INFOODS>F21D5N3
F22:0	fatty acid 22:0 (behenic acid)		<ChEBI>28941 <INFOODS>F22D0
F22:1	fatty acid 22:1 (docosenoic acid)	Use for total 22:1 or if iso-mer unknown	<ChEBI>36031 <INFOODS>F22D1-
F22:1CIS	fatty acid 22:1 cis	Use for total cis-docosenoic acids	
F22:1CN11	fatty acid 22:1 n-11 cis (cetoleic acid)	Use for cis-11-docosenoic acid	<ChEBI>32428 <INFOODS>F22D1CN11
F22:1CN9	fatty acid cis 22:1 n-9 cis (erucic acid)	Use for cis-13-docosenoic acid	<ChEBI>28792 <INFOODS>F22D1CN9
F22:1N7	fatty acid 22:1 n-7		
F22:1TN9	fatty acid trans 22:1 n-9 (brassidic acid)	Use for trans-13-docosenoic acid	<INFOODS>F22D1TN9
F22:2	fatty acid 22:2 (docosadi-enoic acid)		<INFOODS>F22D2
F22:2CN3	fatty acid 22:2 n-3 cis		
F22:2CN6	fatty acid 22:2 n-6 cis		
F22:3CN3	fatty acid 22:3 n-3 cis		
F22:4	fatty acid 22:4 (docosatet-raenoic acid)		<INFOODS>F22D4
F22:4CN6	fatty acid 22:4 n-6 cis		
F22:4N3	fatty acid 22:4 n-3		<INFOODS>F22D4N3
F22:4N6	fatty acid 22:4 n-6		
F22:5	fatty acid 22:5 (docosapentaenoic acid)		<INFOODS>F22D5
F22:5CN3	fatty acid 22:5 n-3 cis		
F22:5CN6	fatty acid 22:5 n-6 cis		
F22:5N3	fatty acid 22:5 n-3 (clupa-nodonic acid)		<INFOODS>F22D5N3

Code	Descriptor	Scope Note	Additional information
F22:5N6	fatty acid 22:5 n-6		<INFOODS>F22D5N6
F22:6	fatty acid 22:6 (docosa-hexaenoic acid)		<INFOODS>F22D6
F22:6CN3	fatty acid 22:6 n-3 cis		
F22:6N3	fatty acid 22:6 n-3 (doco-sahexaenoic acid)		<INFOODS>F22D6N3
F22:UN	fatty acid 22:unidentified		
F23:0	fatty acid 23:0 (trico-sanoic acid)		<INFOODS>F23D0
F24:0	fatty acid 24:0 (lignoceric acid)		<ChEBI>28866 <INFOODS>F24D0
F24:1	fatty acid 24:1 (tetra-cosenoic acid)	Use for total 24:1 or if iso-mer unknown	<INFOODS>F24D1
F24:1CN9	fatty acid 24:1 n-9 cis	Use for cis-9-tetracosenoic acid	<ChEBI>44247
F24:1TN9	fatty acid 24:1 n-9 trans	Use for trans-9-tetracosenoic acid	
F24:2N6	fatty acid 24:2 n-6		
F26:0	fatty acid 26:0		<ChEBI>31009
F4:0	fatty acid 4:0 (butyric acid)		<ChEBI>30772 <INFOODS>F4D0
F4-10:0	fatty acids 4:0 - 10:0		
F4-8:0	fatty acids 4:0 - 8:0		
F6:0	fatty acid 6:0 (caproic acid)		<ChEBI>30776 <INFOODS>F6D0
F8:0	fatty acid 8:0 (caprylic acid)		<ChEBI>28837 <INFOODS>F8D0
FACF	fatty acid conversion fac-tor		<INFOODS>XFA
FACID	fatty acids, total		<INFOODS>FACID
FACIDCTG	fatty acids, total, calcu-lated as triacylglycerol equivalents		
FACN3	fatty acids, total cis n-3	Use for total cis n-3 mono- and polyunsaturated fa	
FACN6	fatty acids, total cis n-6	Use for total cis n-6 mono- and polyunsaturated fa	
FACN9	fatty acids, total cis n-9	Use for total cis n-9 mono- and polyunsaturated fa	
FAESS	fatty acids, total essential		<INFOODS>FAESS
FAFRE	fatty acids, total free		<INFOODS>FAFRE

Code	Descriptor	Scope Note	Additional information
FAMS	fatty acids, total monoun-saturated	Use for total monounsatu-rated fatty acids	<ChEBI>25413 <INFOODS>FAMS Normally excludes trans iso-mers,but may include them, as indicated by the Method Indicator
FAMSCIS	fatty acids, total monoun-saturated cis	Use for total cis monoun-saturated fatty acids	Previous code FAMCIS
FAMSCXR	fatty acids, monounsatu-rated, cis, remainder	Use for the total of cis monounsaturated fatty aci	Previous code FAMUCXR
FAMSTXR	fatty acids, monounsatu-rated, trans, remainder	Use for the total of trans monounsaturated fatty a	Previous code FAMUTXR
FAMSXR	fatty acids, monounsatu-rated, remainder	Use for the total of monoun-saturated fatty acids n	Previous code FAMUXR
FAPU	fatty acids, total polyun-saturated	Use for total polyunsatu-rated fatty acids	<ChEBI>26208 <INFOODS>FAPU Normally limited to isomers with cis, cis-methylene inter-rupted double bonds but may include trans isomers or al-ternative positionings, as in-dicated by the Method Indica-tor
FAPUCR	fatty acids, cis polyun-saturated, remainder		
FAPUCXR	fatty acids, polyunsatu-rated, cis, remainder		
FAPULC	fatty acids, total polyun-saturated long-chain	Use for total polyunsatu-rated long-chain fatty acids	
FAPUN3	fatty acids, total n-3 poly-unsaturated	Use for total cis n-3 polyun-saturated fatty acids,	<INFOODS>FAPUN3
FAPUN3FI	fatty acids, total polyun-saturated n-3 fish		
FAPUN3VE	fatty acids, total polyun-saturated n-3 vegetable		
FAPUN6	fatty acids, total n-6 poly-unsaturated	Use for total cis n-6 polyun-saturated fatty acids,	<INFOODS>FAPUN6
FAPUN9	fatty acids, total n-9 poly-unsaturated	Use for total cis n-9 polyun-saturated fatty acids, includ-ing F18:2CN9 and F20:3CN9	
FAPUOT	fatty acids, other polyun-saturated (= PUFA-linoleic-linolenic)		
FAPUTR	fatty acids, trans polyun-saturated, remainder		
FAPUXR	fatty acids, polyunsatu-rated, remainder		

Code	Descriptor	Scope Note	Additional information
FASAT	fatty acids, total saturated	Use for total saturated fatty acids	<ChEBI>26607 <INFOODS>FASAT May include or exclude branched-chain isomers, as indicated by the Method Indicator
FASATR	fatty acids, trans saturated, remainder		
FASATXR	fatty acids, saturated, remainder		
FAT	fat, total (total lipid)	Use for total lipids, including triglycerides, phospholipids, sterols and related components	<INFOODS>FAT
FATAN	fat, animal		<INFOODS>FATCAN
FATPL	fat, plant		<INFOODS>FATCPL
FATRN	fatty acids, total trans	Use for total fatty acids, excluding the associated glycerol	<INFOODS>FATRN Determined by summation of fatty acids or from fat using a Fatty Acid Conversion Factor, in which case this is reported through the Method Parameter
FATUNK	fat, unknown origin		
FAUN	fatty acid, unidentified		
FD	fluoride	Use for total fluorine as fluoride and other compounds	<ChEBI>24061 <INFOODS>FD
FE	iron, total	Use for total iron	<ChEBI>18248 <INFOODS>FE
FIBC	fibre, crude		<INFOODS>FIBC
FIBHEX	hexoses in dietary fibre		<INFOODS>FIBHEX
FIBINS	fibre, water-insoluble		<INFOODS>FIBINS
FIBPEN	pentoses in dietary fibre		<INFOODS>FIBPEN
FIBSOL	fibre, water-soluble		<INFOODS>FIBSOL
FIBT	fibre, total dietary	Plant polysaccharides and lignin not digested by enzymes in the human digestive tract	<INFOODS>FIB- Determined by the AOAC or related method
FOL	folate, total	Use for total folate as determined by microbiological assay	<INFOODS>FOL
FOLACID	folic acid		<ChEBI>27470
FOLB	folate, bound		<INFOODS>FOLB
FOLFRE	folate, free		<INFOODS>FOLFRE
FORMO	formononetin		<INFOODS>FORMO

Code	Descriptor	Scope Note	Additional information
FRUS	fructose	Use for D-Fructose only; includes only the free mono-saccharide	<ChEBI>15824 <INFOODS>FRUS
FUCSTR	fucosterol		<ChEBI>27865 <INFOODS>FUCSTR
FUCSTR28	isofucosterol		<ChEBI>28604 <INFOODS>FUCSTR28
FUMAC	fumaric acid	Use for trans-1,2-ethylenedicarboxylic acid	<ChEBI>18012 <INFOODS>FUMAC
GALS	galactose	Use for D-Galactose only; includes only the free mono-saccharide	<ChEBI>28260 <INFOODS>GALS
GALSD	alpha galactosides		<INFOODS>GALSD
GENIST	genistein		<INFOODS>GENIST
GLN	glutamine	Use only for L-glutamine	<ChEBI>18050 <INFOODS>GLN
GLU	glutamic acid	Use only for L-glutamic acid	<ChEBI>16015 <INFOODS>GLU
GLUS	glucose	Use for D-Glucose only; includes only the free mono-saccharide	<ChEBI>17634 <INFOODS>GLUS
GLUTN	gluten		<INFOODS>GLUTN
GLY	glycine	Use aminoacetic acid	<ChEBI>15428 <INFOODS>GLY
GLYC	glycogen		<ChEBI>28087 <INFOODS>GLYC
GLYCIT	glycitein		<INFOODS>GLYCTEIN
GLYLIP	glycolipids, total		<INFOODS>GLYLIP
GLYRL	glycerol		<ChEBI>17754 <INFOODS>GLYRL
GULDKAC	di-keto-cholanic acid		<INFOODS>GULDKAC
HAEM	iron, haem		<INFOODS>HAEM
HG	mercury	Use for total mercury	<ChEBI>25195 <INFOODS>HG
HIS	histidine	Use only for L-histidine	<ChEBI>15971 <INFOODS>HIS
HISTN	histamine		<INFOODS>HISTN
HYP	hydroxyproline	Use only for L-hydroxyproline	<INFOODS>HYP
ID	iodide	Use for total iodine as iodide and other compounds	<ChEBI>24859 <INFOODS>ID May include unavailable iodide, e.g. from erythrosine
ILE	isoleucine	Use only for L-isoleucine	<ChEBI>17191 <INFOODS>ILE

Code	Descriptor	Scope Note	Additional information
INOTL	inositol	Use for total 1,2,3,4,5,6-cyclohexanehexol, any individual stereoisomers or mixtures	<ChEBI>24848 <INFOODS>INOTL
INULN	inulin		<ChEBI>15443 <INFOODS>INULN
ISOCAC	isocitric acid	Use for 1-hydroxypropane-1,2,3-tricarboxylic acid	<ChEBI>30887 <INFOODS>ISOCAC
ISOFLAVT	isoflavonoids, total		<INFOODS>ISOFLAVT
ISOMALT	isomalt		
K	potassium	Use for total potassium	<ChEBI>37247 <INFOODS>K
KAEMF	kaempferol		<INFOODS>KAEMF
LACAC	lactic acid	Use for 2-hydroxypropanoic acid	<ChEBI>28358 <INFOODS>LACAC
LACACD	D-lactic acid	Use for (2R)-2-hydroxypropanoic acid	<ChEBI>42111 <INFOODS>LACACD
LACACL	L-lactic acid	Use for (2S)-2-hydroxypropanoic acid	<ChEBI>422 <INFOODS>LACACL
LACS	lactose		<ChEBI>17166 <INFOODS>LACS
LACTTL	lactitol	Use for 4-O-?-D-galactopyranosyl-D-glucitol	<INFOODS>LACTL
LEU	leucine	Use only for L-leucine	<ChEBI>15603 <INFOODS>LEU
LIGN	lignin		<INFOODS>LIGN
LIGNANS	lignans, total		<INFOODS>LIGNANS
LUTE	lutein		<INFOODS>LUTN
LUTEOL	luteolin		<INFOODS>LUTEOL
LUTEZEAX	lutein plus zeaxanthine		<INFOODS>LUTNZEA
LYCO	lycopene		<INFOODS>LYCPN
LYS	lysine	Use only for L-lysine	<ChEBI>18019 <INFOODS>LYS
LYSAVL	lysine, available	Use only for available L-lysine	
MALAC	malic acid	Use for either enantiomer of 2-hydroxybutanedioic acid or a mixture of them	<ChEBI>6650 <INFOODS>MALAC
MALS	maltose		<ChEBI>17306 <INFOODS>MALS
MALTRS	maltotriose		<ChEBI>27931 <INFOODS>MALTRS Available for humans

Code	Descriptor	Scope Note	Additional information
MANTL	mannitol	Use for D-mannitol	<ChEBI>16899 <INFOODS>MANTL D-Mannitol is the naturally occurring form
MATAIRES	matairesinol		<INFOODS>MATAIRES
MET	methionine	Use only for L-methionine	<ChEBI>16643 <INFOODS>MET
MG	magnesium	Use for total magnesium	<ChEBI>25107 <INFOODS>MG
MK10	Menaquinone-10		
MK11	Menaquinone-11		
MK12	Menaquinone-12		
MK13	Menaquinone-13		
MK4	Menaquinone-4		
MK5	Menaquinone-5		
MK6	Menaquinone-6		
MK7	Menaquinone-7		
MK8	Menaquinone-8		
MK9	Menaquinone-9		
MN	manganese	Use for total manganese	<ChEBI>18291 <INFOODS>MN
MNSAC	monosaccharides, total	Use for total free monosaccharides	<ChEBI>35381 <INFOODS>MNSAC
MO	molybdenum	Use for total molybdenum	<ChEBI>28685 <INFOODS>MO
MYRIC	myricetin		<INFOODS>MYRIC
NA	sodium	Use for total sodium	<ChEBI>26708 <INFOODS>NA
NACL	salt		<ChEBI>26710 <INFOODS>NACL
NCF	nitrogen conversion factor		<INFOODS>XN
NHAEM	iron, non-haem		<INFOODS>NHAEM
NI	nickel	Use for total nickel	<ChEBI>28112 <INFOODS>NI
NIA	niacin, preformed	Preformed nicotinic acid (usually bound) and nicotinamide	<INFOODS>NIA-

Code	Descriptor	Scope Note	Additional information
NIAEQ	niacin equivalents, total	Use for total niacin available from preformed niacin and its precursor tryptophan	<INFOODS>NIAEQ Contributions include tryptophan/60, but the contribution from preformed niacin may range down to zero in cereals. Information is reported in the Method Indicator and, if necessary, food-specific factors for preformed niacin in the Method Parameter
NIATRP	niacin equivalents from tryptophan	See also tryptophan	<INFOODS>NIATRP
NITRA	nitrates		<INFOODS>NITRA
NITRI	nitrites		<INFOODS>NITRI
NITRN	nitrosamines, total		<INFOODS>NITRN
NIAAVL	niacin, available		<INFOODS>NIAAVL
NNP	nitrogen, non protein		<INFOODS>NNP
NSP	non-starch polysaccharides		<INFOODS>PSACNS
NT	nitrogen, total		<INFOODS>NT
OA	organic acids, total	Use for total of energy-contributing organic acids only	<INFOODS>OA May be a contributing value in energy calculation
OLSAC	oligosaccharides, available	Use for total available carbohydrates having 3 to 9 monosaccharide units	<INFOODS>OLSAC Includes available higher sugars, e.g. maltotriose, lower-DP maltodextrins and most cyclodextrins
OXALAC	oxalic acid	Use for ethanedioic acid	<ChEBI>16995 <INFOODS>OXALAC
P	phosphorus	Use for total phosphorus	<ChEBI>28659 <INFOODS>P Includes phosphorus as phosphate, etc., but excludes the combined oxygen
PANTAC	pantothenic acid (vitamin B5)	D-pantothenic acid	<ChEBI>7916 <INFOODS>PANTAC Expressed as calcium D-pantothenate
PB	lead	Use for total lead	<ChEBI>25016 <INFOODS>PB
PECT	pectin		<INFOODS>PECT
PH	pH		<INFOODS>PH
PHE	phenylalanine	Use only for L-phenylalanine	<ChEBI>17295 <INFOODS>PHE
PHETN	phenylethylamine		<INFOODS>PHETN

Code	Descriptor	Scope Note	Additional information
PHOLIP	phospholipids, total		<ChEBI>16247 <INFOODS>PHOLIP
PHYSTR	phytosterols, total (total plant sterols)		<ChEBI>26125 <INFOODS>PHYTSTR
PHYTAC	phytic acid	Use for myo-inositol hexakisphosphate	<ChEBI>17401 <INFOODS>PHYTAC
PIPN	piperine		<ChEBI>28821 <INFOODS>PIPN
POLY	polyols, total	Use for total sugar alcohols	<INFOODS>POLYL May be a contributing value in energy calculation
PORTION	usual portion		
PRO	proline	Use only for L-proline	<ChEBI>17203 <INFOODS>PRO
PROPAC	propionic acid	Use for propanoic acid	<ChEBI>30768 <INFOODS>PROPAC
PROT	protein, total	Protein calculated from a nitrogen value	<INFOODS>PROCNT The Nitrogen Conversion Factor used is reported through the Method Parameter
PROTAN	protein, animal		<INFOODS>PROANI
PROTPL	protein, plant		<INFOODS>PROPLA
PROTUNK	protein, unknown origin		
PSACNC	polysaccharides, non-cellulosic		<INFOODS>PSACNC
PSACNCI	polysaccharides, non-cellulosic, water-insoluble		<INFOODS>PSACNCI
PSACNCS	polysaccharides, non-cellulosic, water-soluble		<INFOODS>PSACNCS
PURAC	polyuronic acids		<INFOODS>PURAC
PURN	purines		<ChEBI>26401 <INFOODS>PURN
PUTRSC	putrescine		<INFOODS>PUTRSC
PYRXL	pyridoxal		<ChEBI>17310 <INFOODS>PYRXL
PYRXM	pyridoxamin		<ChEBI>16410 <INFOODS>PYRXM
PYRXN	pyridoxin		<ChEBI>16709 <INFOODS>PYRXN
QUERCE	quercetin		<INFOODS>QUERCE
RAFS	raffinose		<ChEBI>16634 <INFOODS>RAFS Not available for humans

Code	Descriptor	Scope Note	Additional information
RB	rubidium	Use for total rubidium	<ChEBI>33322 <INFOODS>RB
RETALD	retinaldehyde		<INFOODS>RETALD
RETOL	retinol (preformed vitamin A)		<ChEBI>17336 <INFOODS>RETOL
RETOL13	13-cis retinol		<INFOODS>RETOL13
RETOLAT	all-trans retinol		<ChEBI>17336 <INFOODS>RETOLAT
RETOLATE	all-trans retinol equiva-lents		<INFOODS>RETOLATE
RETOLDH	dehydroretinol		<INFOODS>RETOLDH
RIBF	riboflavin		<ChEBI>17015 <INFOODS>RIBF
RIBS	ribose	D-Ribose only; includes only the free monosaccharide	<ChEBI>16988 <INFOODS>RIBS
S	sulphur	Use for total sulphur	<ChEBI>26833 <INFOODS>S
SACCNA	sodium-saccharin		Non-nutritive sweetener, also used as the calcium salt
SALAC	salicylic acid	Use for 2-hydroxybenzoic acid	<ChEBI>16914 <INFOODS>SALAC
SE	selenium, total	Use for total selenium	<ChEBI>27568 <INFOODS>SE
SECORES	secoisolarisiresinol		<INFOODS>SECORES
SER	serine	Use only for L-serine	<ChEBI>17115 <INFOODS>SER
SEROTN	serotonin		<INFOODS>SEROTN
SI	silicon	Use for total silicon	<ChEBI>27573 <INFOODS>SI
SITSTR	sitosterol	Use for beta-sitosterol only	<INFOODS>SITSTR
SOLID	solids, total		
SORAC	sorbic acid		<ChEBI>35962 Antimicrobial preservative, also used as sodium sorbate (E201), potassium sorbate (E202) and calcium sorbate (E203). It has 4 geometric isomers, cis or trans at either double bond.
SORTL	sorbitol	Use for D-sorbitol	<ChEBI>17924 <INFOODS>SORTL
SPERDN	spermindine		<INFOODS>SPERDN
SPERN	spermine		<INFOODS>SPERN
SPISTR	spinasterol		<INFOODS>SPISTR

Code	Descriptor	Scope Note	Additional information
STARCH	starch, total	Use for total starch, including starch, dextrins and glycogen	<INFOODS>STARCH
STARES	starch, resistant		<INFOODS>STARES
STAS	stachyose		<ChEBI>17164 <INFOODS>STAS Not available for humans
STEROTH	sterols, other		
STERT	sterols, total	Use for total of phytosterols and ';animal sterols'; (e.g. cholesterol)	<ChEBI>15889 <INFOODS>STERT
STGSTR	stigmasterol	Use for delta-5 stigmasterol	<INFOODS>STGSTR
STID7	delta 7 stigmasterol	Use for delta-5 stigmasterol	<INFOODS>STID7
STID7911	delta 7,9,11-stigmastadienol	Use for 24-ethylcholesta-5,7,22-trien-3-?-ol	<INFOODS>STID7911
SUCAC	succinic acid	Use for butanedioic acid	<ChEBI>15741 <INFOODS>SUCAC
SUCS	sucrose		<ChEBI>17992 <INFOODS>SUCS
SUGAD	sugar, added	Refined or industrially manufactured sucrose and other sugars	<INFOODS>SUGAD
SUGAN	sugar, natural		<INFOODS>SUGAN
SUGAR	sugars, total	Use for total free sugars	<INFOODS>SUGAR Includes mono- and disaccharides, and sometimes trisaccharides, indicated through the Method Indicator
TANNIN	tannin		<INFOODS>TAN
TARAC	tartaric acid	Use for either enantiomer of 2,3-dihydroxybutanedioic acid or a mixture of them	<ChEBI>15674 <INFOODS>TARAC
THEBRN	theobromine		<INFOODS>THEBRN
THIA	thiamin		<ChEBI>18385 <INFOODS>THIA Expressed as the free thiamin cation, thiamin monochloride or thiamin chloride hydrochloride
THR	threonine	Use only for L-threonine	<ChEBI>16857 <INFOODS>THR
TOCPHA	alpha-tocopherol	alpha-tocopherol is defined as RRR-alpha-tocopherol	<ChEBI>18145 <INFOODS>TOCPHA
TOCPHB	beta-tocopherol		<ChEBI>22855 <INFOODS>TOCPHB

Code	Descriptor	Scope Note	Additional information
TOCPHD	delta-tocopherol		<ChEBI>23607 <INFOODS>TOCPHD
TOCPHG	gamma-tocopherol		<ChEBI>18185 <INFOODS>TOCPHG
TOCPHT	tocopherols, total		<INFOODS>TOCPHT
TOCTRA	alpha-tocotrienol		<ChEBI>33270 <INFOODS>TOCTRA
TOCTRB	beta-tocotrienol		<ChEBI>33275 <INFOODS>TOCTRB
TOCTRD	delta-tocotrienol		<ChEBI>33276 <INFOODS>TOCTRD
TOCTRG	gamma-tocotrienol		<ChEBI>33277 <INFOODS>TOCTRG
TOCTRT	tocotrienols, total		
TRES	trehalose	alpha-D-Trehalose (alpha,alpha-trehalose) only	<ChEBI>16551 <INFOODS>TRES
TRP	tryptophan	Use only for L-tryptophan	<ChEBI>16828 <INFOODS>TRP
TRYPN	tryptamine		<INFOODS>TRYPN
TYR	tyrosine	Use only for L-tyrosine	<ChEBI>17895 <INFOODS>TYR
TYRA	tyramine		<INFOODS>TYRA
VAL	valine	Use only for L-valine	<ChEBI>16414 <INFOODS>VAL
VITA	vitamin A; retinol equiv from retinol and carotenoid activities	Use for total vitamin A activity from total retinol and active carotenoids	<INFOODS>VITA-Information on the calculation is recorded through the Method Indicator and contributing values present in the dataset
VITAPAL	vitamin A palmitate		<INFOODS>VITAPAL
VITB12	vitamin B-12		<INFOODS>VITB12 Expressed as cyanocobalamin
VITB6	vitamin B-6, total	Use for total vitamin B-6 including pyridoxine (pyridoxol), pyridoxal and pyridoxamine	<ChEBI>27306 <INFOODS>VITB6-Expressed as free pyridoxine, as pyridoxine hydrochloride or as (pyridoxine hydrochloride plus pyridoxal hydrochloride plus pyridoxine dihydrochloride)
VITC	vitamin C (ascorbic acid)	Use for total vitamin C includes L-ascorbic acid and L-dehydroascorbic acid	<INFOODS>VITC-

Code	Descriptor	Scope Note	Additional information
VITD	vitamin D	Use for total vitamin D activity	<ChEBI>27300 <INFOODS>VITD- Information on contributing vitamers is recorded through the Method Indicator and contributing values present in the dataset. If a food-specific factor for 25-OH vitamin D activity was applied, this is reported through the Method Parameter
VITE	vitamin E; alpha-tocopherol equiv from E vitamer activities	Use for total vitamin E activity	<INFOODS>VITE- Information on the calculation is recorded through the Method Indicator and contributing values present in the dataset
VITK	vitamin K, total	Use for total vitamin K activity	<INFOODS>VITK Includes phylloquinone (vitamin K1) and sometimes contributions from menaquinones (vitamin K2)
VITK1	vitamin K-1	Use for phylloquinone	<ChEBI>18067 <INFOODS>VITK1
VITK1D	dihydro-vitamin K-1	Use for vitamin K-1 hydroquinone	<ChEBI>28433
VITK2	vitamin K-2 (menakinone)		<INFOODS>VITK2
VITAACT	vitamin A acetate		<INFOODS>VITAACT
WASTE	waste		<INFOODS>REFUSE
WATER	water (moisture)		<ChEBI>15377 <INFOODS>WATER
XYLS	xylose	D-Xylose only; includes only the free monosaccharide	<ChEBI>15936 <INFOODS>XYLS
XYLTL	xylitol	Use for (2S,4R)-pentane-1,2,3,4,5-pentol	<ChEBI>17515 <INFOODS>XYLTL
ZEAXN	zeaxanthin		<INFOODS>ZEA
ZN	zinc	Use for total zinc	<ChEBI>27363 <INFOODS>ZN

2.4 UNIT THESAURUS, VERSION 1.0

The Unit thesaurus contains terms for the measure used for the amount of the component value or measurable property reported as the value. It also includes terms for dimensionless numbers for values that are expressed as a ratio or as a percentage.

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 descriptors defined in the Unit thesaurus, version 1.0 are

Code	Descriptor	Scope Note	Additional information
ATE	alpha-tcopherol equivalent		1 ATE = 1 mg RRR-alpha-tocopherol. Sometimes quoted using the non-preferred name d-alpha-tocopherol
BCE	beta-carotene equivalent		1 BCE = 1 ug all-trans beta-carotene
BX	degrees Brix	Use only for the mass ratio of dissolved sucrose to water in a liquid expressed in degrees Brix (°Bx). When using this descriptor, the corresponding matrix unit is *X*.	The °Bx unit is widely used in the fruit juice and nectar production. <DICTION>Degrees Brix (°Bx) is measured with a saccharimeter that measures specific gravity of a liquid or more easily with a refractometer. A 25 °Bx solution is 25% (w/w), with 25 grams of sucrose sugar per 100 grams of liquid. Or, to put it another way, there are 25 grams of sucrose sugar and 75 grams of water in the 100 grams of solution [Wikipedia].
g	gram		ISO 1000:1992
kcal	kilocalorie		
kg	kilogram		ISO 1000:1992
kJ	kilojoule		ISO 1000:1992

Code	Descriptor	Scope Note	Additional information
l	litre		Volume unit outside ISO 1000:1992, but recognized by CIPM as having to be retained because of its practical importance. ISO prefixes (e.g. deci, centi, milli, micro, etc.) may be attached to the unit to form multiples.
mg	milligram		ISO 1000:1992
ml	millilitre		Multiple of volume unit, l (litre) outside ISO 1000:1992, but recognized by CIPM as having to be retained because of its practical importance.
mmol	millimole		ISO 1000:1992
MSE	monosaccharide equivalent		1 MSE = 1 g glucose
NE	niacin equivalent		
ng	nanogram		ISO 1000:1992
PCT	per cent	Never use for compositional values, which are always expressed as weight or volume unit per matrix unit, normally per 100g edible portion.	Although most dimensionless properties are by preference expressed as a proportion (unit = ';R';), some may be more normally expressed as a percentage (%).
R	ratio	Used for properties expressed as a proportion. Any value expressed as a ratio will have matrix unit ';X';, ';not applicable';.	
RE	retinol equivalent	Use for Retinol Activity Equivalent. The factors used to convert beta-carotene equivalents to retinol equivalents are recorded through the Method Indicator.	1 RE = 1 ug all-trans retinol.
ug	microgram		ISO 1000:1992 The descriptor code ';ug'; is used in preferrence to the use of a Greek character, μ, which requires an extended character set.

Code	Descriptor	Scope Note	Additional information
ul	microlitre		ISO 1000:1992 The descriptor code ';ug'; is used in preferrence to the use of a Greek character, µ, which requires an extended character set.

2.5 MATRIX UNIT THESAURUS, VERSION 1.0

The Matrix Unit thesaurus contains terms for the amount of the matrix material that has quantity reported as the value, usually expressed using the preposition per. The term Not applicable is used where the value and its unit do not have a Matrix Unit, for example for dimensionless numbers. Matrix Unit was previously known as Mode of Expression, while INFOODS uses the term Base Unit.

The descriptors defined in the Matrix Unit thesaurus, version 1.0 are

Code	Descriptor	Scope Note	Additional information
D	per 100g dry weight		
DKG	per kg dry weight		
F	per 100g total fatty acids		
FT	per g total fat		
N	per g nitrogen		
T	per 100g total food	Used for data from foods Including any waste or inedible parts e.g. chicken wing with bones, banana including peel, etc.	
TF	per 100g total fat		
TKG	per kg total food		
V	per 100ml food volume		
VL	per l food volume		
VM	per ml food volume		When used for density, the corresponding unit must be g.
W	per 100g edible portion		
WKG	per kg edible portion		
X	not applicable	Used for components like edible portion, usual portion, degrees Brix, pH, etc.	

2.6 VALUE TYPE THESAURUS, VERSION 1.0

The Value Type is designed to further describe the data values, or to give a qualitative description of the value when no value can be given.

The Value Type term assigned to a value provides extra, non-numeric information about the numerical amount and for values for which a number cannot be given. It may modify the number, as in the case of Less than, or state its relation to contributory data, for example Mean or Maximum. It may indicate relatively insignificant quantities, e.g. Trace, or that a numeric value cannot be given, e.g. Undecidable.

The descriptors defined in the Value Type thesaurus, version 1.0 are

Code	Descriptor	Scope Note	Additional information
AR	as reported	Use when the Selected Value was assigned as reported, e.g. in a reference book, but not evaluated by the compiler. This may be appropriate for non-compositional values, for example conversion factors or density. Use *As reported [AR]* together with Method Type *Method type not known [X]*.	
AV	average	Used when the Selected Value was chosen as the average of values coming from different sources or different statistical distributions* (not necessarily normal distributions).	For Value Type AV, the only statistical fields that can be filled are N (number of contributing values), Minimum and Maximum. *A statistical distribution may consist of results from replicate analysis or results from separate samples (e.g. from differents projects) for which the separate samples' value distributions do not differ significantly (statistically, usually tested with F- or similar test) and in which case all results can be combined.

Code	Descriptor	Scope Note	Additional information
BE	best estimate	Used when the Selected Value was chosen as the "best" available. BE is weaker than *mean [MN]*, which applies to normal distributions, and *average [AV]*, which applies to any averaging of values. *Best Estimate* can be used even if further statistical information is reported. A value obtained from other component values by a single calculation is a normally assigned as *Best Estimate*.	
BL	below detection limit	Used when it is known that the component is present in the food, but the component was not detectable with the applied method, and thus was below the limit of detection (LOD). LOD must be provided within the corresponding method description. If LOD is not know, use *trace [TR]* BL can be used with a blank Selected Value.	BL will often be used with a Selected Value > 0. It is important when data are use for exposure assessment. A normal Selected Value can be 0.5 * LOD. For the statistical evidence of this, see http://www.who.int/foodsafety/publications/chem/en/lowlevel_may1995.pdf
E	other value type	Use for other Value Type not defined in this thesaurus. Use of this term should be avoided, if used only with great caution. See also Additional Information.	E = else. Except for its use specified in a EuroFIR thesaurus or guidelines, please inform the maintainer of this thesaurus of the circumstances requiring the use of this descriptor in case a new Value Type should be defined.
LT	less than	Use only if the Selected Value is the highest value, if there is no further statistical/technical information available, and if no other value type applies. Before applying this descriptor, refer to *below detection limit [BL]* and *trace [TR]*. LT can be useful in case of calculated or imputed values. The figure given in Selected Value should be interpreted as an upper limit.	
LZ	logical zero	Used when the Selected Value iss assigned as '0' as the component is not assumed to occur in the food, e.g. alcohol in meat, or fat in mineral water (use LZ together with Method Type U). In the case of the Selected Value being assigned as '0' due to regulatory requirements, use LZ together with method type *estimated according to regulatory requirements [L]*.	

Code	Descriptor	Scope Note	Additional information
MD	median	Used when the Selected Value corresponds to the value reported in the Median field when details of the statistical results are given.	
MI	minimum	Use when the Selected Value was chosen as the minimum value of the set of results, whether or not these belong to the the same statistical distribution*.	The Selected Value corresponds to the value reported in the Minimum field when details of the statistical results are given. *A statistical distribution may consist of results from replicate analysis or results from separate samples (e.g. from differents projects) for which the separate samples' value distributions do not differ significantly (statistically, usually tested with F- or similar test) and in which case all results can be combined.
MN	mean	Used when the Selected Value was chosen as the arithmetic mean of values deriving from the same statistical distribution*. This descriptor may only apply to normal distributions. For other value distributions and combinations, use *average [AV]*.	The Selected Value corresponds to the value reported in the Mean field when details of the statistical results are given. *A statistical distribution may consist of results from replicate analysis or results from separate samples (e.g. from differents projects) for which the separate samples' value distributions do not differ significantly (statistically, usually tested with F- or similar test) and in which case all results can be combined.
MT	more than	Use only if the Selected Value is the lowest value, if there is no further statistical information available, and if no other value type applies. MT is also useful in case of calculated or imputed values, e.g. in recipe calculation. The figure given in Selected Value should be interpreted as an lower limit.	

Code	Descriptor	Scope Note	Additional information
MX	maximum	Used when he Selected Value was chosen as the maximum value of the set of values, whether or not these values belong to the same statistical distribution*.	The Selected Value corresponds to the value reported in the Maximum field when details of the statistical results are given. \n\n *A statistical distribution may consist of results from replicate analysis or results from separate samples (e.g. from differents projects) for which the separate samples' value distributions do not differ significantly (statistically, usually tested with F- or similar test) and in which case all results can be combined.
N	unknown	Use this value type together with a blank Selected Value and with Method Type X , if compilation work has shown the value to be unknown, i.e. there is no literature available and no estimation or calculation possible. \n If a Selected Value is present, but nothing is known about it origin or derivation, etc., use "value type not known [X]".	Value Type "N" is only useful in the table of aggregated values of a FCDB, in cases where there is no Selected Value, no statistics, etc. In cases where the compiler is completely clueless as to what value to assign. It signals missing data for future analyses and enables tables to be printed correctly.
TR	trace	Use Trace only when there is evidence that some amount of the component is present but no precise figure can be given and no information on e.g. LOQ/LOD. \n The TR descriptor is weaker than *below detection limit [BL]*. \n Further information about the exact definition of Trace should be provided ia a Remarks field in the appropriate in Value, Method Specification, Component or Reference record.	The trace decsriptor is often used in printed food composition tables to indicate real values lower than the "resolution", i.e. the number of decimals, used for the component in the tables. Representation of a value of 0.05 is not possible, if the component is shown with with 1 decimal as the resulting value would be 0 (zero). \n In such cases, the value is indicated by e.g. a "tr" or "trace" to indicate that there is some amount of the component present.
UD	undecidable	Use this Value Type with a blank Selected Value, if values exist but no decision can be made, e.g. because the data differ too much. Method information or some statistical parameters (e.g. minimum and maximum) might however be available. If no information about the Selected value is available, use "unknown [N]".	

Code	Descriptor	Scope Note	Additional information
W	weighted	Used when the Selected Value was chosen as the weighted average of values from different sources or different statistical distributions, for example weighting by brands by market share, by number of samples, etc.	
X	value type not known	Use when the Value Type for the given value is not known.	Value type 'unknown [X]' apply to data taken from a publication where nothing is known about how the value was calculated.

2.7 METHOD TYPE THESAURUS, VERSION 1.0

The Method Type term assigned to a value provides a general indication of the type of method used to obtain the associated value. For retrospective documentation where little is known about the value, generic terms are included to indicate analytical, calculated and imputed or estimated values. Normally a more specific Method Type term should be used.

The descriptors defined in the Method Type thesaurus, version 1.0 are

Code	Descriptor	Scope Note	Additional information
A	Analytical result(s)	Use for Selected Value based on an analytical result or statistic of multiple measurements of the same food sample (replicates). See Method Indicator code and Keystep fields for further method information. 'A' can be used regardless if the value derives from the same or different statistical distributions.	
AG	Analytical, generic	Use for values that are known to be analytical, but no further information on the nature of analysis is available, whether the value derives from the same or different statistical distributions.	
CG	calculated, generic	Use for values that are known to be calculated, but no further information on the nature of calculation is available.	
D	Aggregation of contributing analytical results	Use for Selected Value derived as an aggregation of evaluated analytical contributing results (e.g. from different sources or different food samples).	See Method Indicator code and Keystep fields for further method information. If contributing values are documented, separate sets of method and reference information should be reported for each value contributing to the aggregation.
E	Other method type	Other Method Type not defined in this thesaurus. Use of this term should be avoided, if used only with great caution. See also Additional Information.	E = else. Except for its use specified in a EuroFIR thesaurus or guidelines, please inform the maintainer of this thesaurus of the circumstances requiring the use of E in case a new Method Type should be defined.

Code	Descriptor	Scope Note	Additional information
G	Aggregated from contributing food items	Used for the Selected Value when this is based on an aggregation of the values for contributing foods.	If, as is generally the case, the aggregation applies to all values for a food, further information on the contributing foods should appear in the Food table, e.g. in the Remarks field. Otherwise the information should be reported in the Remarks field of the Value record. Aggregated foods (e,g, on market shares or consumption data) is just another form of "recipe", and this will be reflected in the Method Indicator. Information about the contributing foods could appear in a recipe ingredient (contributing foods) entity.
I	Imputed/estimated from related food	Use for a value imputed, estimated or copied from the value for a related food, including similar foods reported in other FCT sources. Further information identifying the related food should appear in the Remarks field of the Value record or in the Food table if many values for the food have been imputed from the same related food.	
IG	imputed/estimated, generic	Use for values that are known to be imputed, but no further information on the nature of imputation is available.	
K	Calculated from related food	Use for a value obtained by a specific calculation, rather than imputation, performed on a related food, e.g. calculating the values for a food 'weighed with waste'. For single-ingredient raw-to-cooked calculations, including cases such as Toast from Bread, use Method Type "R".	If the imputation applies to all values for a food, further information should appear in the Food table, e.g. in the Remarks field. Otherwise the information should be reported in the Remarks field of the Value record.
L	Estimated according to regulatory requirements	Use when a value has been assigned only according to regulatory requirements, e.g. a certain fat level in milk, fat in butter or mayonnaise, etc. Do not use this Method Type, if the value is analytical, calculated or estimated in any other way.	L stands for legislation.

Code	Descriptor	Scope Note	Additional information
O	Imputed/estimated from other food and other related component	Use with extreme care. This descriptor is very weak and should only be used if either *imputed/estimated, generic [IG]* or *Imputed/estimated from related food [I]* do not apply.	
P	Calculated on component profile	Calculation of the Selected Value for one or more component values on the basis of an associated component and the profile of the component in a related food (or, in some cases such as fatty acids in milk, the same food).	Examples include fatty acid and amino acid profile calculations. The related food should be identified in the documentation, e.g. in the Remarks field for the calculated value.
R	Calculated as recipe	Used for Selected Values obtained by calculation - e.g. recipe calculation - from ingredients (or a single-ingredient raw-to-cooked calculations including Toast from Bread).	Further information should normally be reported through food description in the Recipe and Ingredient information.
S	Summation from constituent components	Use for the Selected Value when this is the result of the simple addition or subtraction of values for related components. Further information should be reported using the appropriate Method Indicator code. Note that this descriptor includes subtractions, e.g. calculation of total carbohydrates by difference.	
T	Calculations including conversion factors	Use for the Selected Value when this is the result of the addition of values for contributing components after the application of activity factors, for example, calculation of energy, protein and vitamin activities. Further information should be reported using the appropriate Method Indicator code.	
U	Estimated according to logical deduction	Use for e.g. Edible proportion for milk of 100% as well as with Value Type LZ.	Added by EPIC.
X	Method type not known	Use when the method type for the given value is not known, i.e. no method information is available.	

2.8 METHOD INDICATOR THESAURUS, VERSION 1.0

The Method Indicator thesaurus contains terms for documenting the method used to obtain a compositional value, including analysis, calculation and imputation. The terms are organised in a hierarchy, the top level being the type of method, the next a generic method, and finally a specific method term. A specific term should be assigned whenever possible. More detail of the method used can be reported using the Method Specification entity.

The descriptors defined in the Method Indicator thesaurus, version 1.0 are shown in the following sections.

2.8.1 METHOD INDICATOR THESAURUS, ALPHANUMERIC DISPLAY

Code	Descriptor	Scope Note	Additional information
MI0001	Carbohydrate, EC Nutrition Labelling Directive, calculated from available carbohydrate and polyols	Use for carbohydrate calculated according to the EC Nutrition Labelling Directive, which defines carbohydrates as "carbohydrate which is metabolized in man, and includes polyols". Note that in energy calculations according to the EC Directive, polyols are included separately, see *Energy calculated according to EC Nutrition Labelling Directive (kcal) [MI0108]* and *Energy calculated according to EC Nutrition Labelling Directive (kJ) [MI0107]*.	<Formula>CHOPL = available carbohydrate (CHO) + sum of polyols CHOPL has not been created in the Component Thesaurus.
MI0002	EuroFIR recipe calculation procedure		
MI0003	Recipe level calculation procedure		
MI0004	Ingredient level calculation procedure		
MI0005	Other recipe calculation procedure		
MI0101	Energy calculated according to Southgate (kcal)		<Formula>Energy (kcal) = (4 x g PROT) + (3.75 x g CHO mse) + (9 x g FAT) + (7 x g ALC) <Eurofoods ME-code>ME21 <Component>ENERC INFOODS keyword {STDA}

Code	Descriptor	Scope Note	Additional information
MI0102	Energy calculated according to Atwater (kcal, general factors)		<Formula>Energy (kcal) = (4 x g PROT) + (4 x g CHOT) + (9 x g FAT) + (7 x g ALC) <Eurofoods ME-code>ME22 <Component>ENERC INFOODS keyword {STDT}
MI0103	Energy calculated according to Codex Alimentarius (kcal)	Use for energy, kcal, calculated according to Codex Alimentarius guidelines. Remark that protein is defined as Protein = Total Kjeldahl Nitrogen x 6.25 unless a different factor is given in a Codex standard or in the Codex method of analysis for that food.	<Formula>Energy (kcal) = (4 x g PROT) + (4 x g CHOT) + (9 x g FAT) + (7 x g ALC) + [3 x g OA] <Eurofoods ME-code>ME23 <Component>ENERC <Reference>Guidelines on nutrition labelling, Codex Alimentarius Commission, CACGL 2, Revision 1, Ammendment 2, ´2006 [Internet: http://www.codexalimentarius.net/download/standards/34/CXG_002e.pdf]
MI0104	Energy calculated according to Codex Alimentarius (kJ)	Use for energy, kJ, calculated according to Codex Alimentarius guidelines. Remark that protein is defined as Protein = Total Kjeldahl Nitrogen x 6.25 unless a different factor is given in a Codex standard or in the Codex method of analysis for that food.	<Formula>Energy (kJ) = (17 x g PROT) + (17 x g CHOT) + (37 x g FAT) + (29 x g ALC) + [13 x g OA] <Eurofoods ME-code>ME24 <Component>ENERC INFOODS keyword {CDXJ} <Reference>Guidelines on nutrition labelling, Codex Alimentarius Commission, CACGL 2, Revision 1, Ammendment 2, ´2006 [Internet: http://www.codexalimentarius.net/download/standards/34/CXG_002e.pdf]
MI0105	Energy calculated according to Southgate (kJ)		<Formula>Energy (kJ) = (17 x g PROT) + (16 x g CHO mse) + (37 x g FAT) + (29 x g ALC) <Eurofoods ME-code>ME25 <Component>ENERC INFOODS keyword {KJA}
MI0106	Energy calculated according to Atwater (specific factors)	Use only if energy is calculated using specific Atwater factors as described in Merrill and Watt: Energy values of foods, basis and derivation, Agriculture Handbook No. 74, United States Department of Agriculture (Slightly revised) February 1973.	<Eurofoods ME-code>ME156 <Component>ENERC INFOODS keyword {FDS}. kcal or kJ reported in Units field, factors listed in Method specification and their source reported as Method Reference.

Code	Descriptor	Scope Note	Additional information
MI0107	Energy calculated according to EC Nutrition Labelling Directive (kJ)	Use for energy, kJ, calculated according to the EC Nutrition Labelling Directive. Note that 'protein' means the protein content calculated using the formula: protein = total Kjeldahl nitrogen × 6,25.	<Formula>Energy (kJ) = 17 kJ/g x g PROT + 17 kJ/g x (g CHO - g POLY) + 37 kJ/g x g FAT + 29 kJ/g x g ALC + 13 kJ/g x g OA + 10 kJ/g x g POLY <Component>ENERC <Reference>Council Directive 90/496/EEC of 24 September 1990 on nutrition labelling for foodstuffs [http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31990L0496:EN:HTML]
MI0108	Energy calculated according to EC Nutrition Labelling Directive (kcal)	Use for energy, kcal, calculated according to the EC Nutrition Labelling Directive. Note that 'protein' means the protein content calculated using the formula: protein = total Kjeldahl nitrogen × 6,25.	<Formula>Energy (kcal) = 4 kcal/g x g PROT + 4 kcal/g x (g CHO - g POLY) + 9 kcal/g x g FAT + 7 kcal/g x g ALC + 3 kcal/g x g OA + 2.4 kcal/g x g POLY <Component>ENERC <Reference>Council Directive 90/496/EEC of 24 September 1990 on nutrition labelling for foodstuffs [http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31990L0496:EN:HTML]
MI0109	Energy calculated according to EC Nutrition Labelling Directive (kJ, polydextrose exception)	Use only if polydextrose content is significant. Exception case where polydextrose significant (kcal factor = 4). POLYDEXS is not yet defined as a EuroID or an INFOODS tagname.	<Formula>Energy (kJ) = 17 kJ/g x g PROT + 17 kJ/g x (g CHO - g POLY) + 37 kJ/g x g FAT + 29 kJ/g x g ALC + 13 kJ/g x g OA + 10 kJ/g x g POLY + 5 kJ/g x g POLYDEXS <Component>ENERC
MI0110	Energy calculated according to Nordic Nutrition Recommendations (kJ)		<Formula>Energy (kJ) = (17 x g PROT) + (17 x g CHO) + (37 x g FAT) +(8 x g FIBT) + (29 x g ALC) <Component>ENERC
MI0111	Energy calculated according to Atwater (kJ, general factors)		<Formula>Energy (kJ) = (17 x g PROT) + (38 x g CHOT) + (17 x g FAT) + (30 x g ALC) <Eurofoods ME-code>ME22 <Component>ENERC INFOODS keyword {STDT}
MI0121	Protein calculated from amino acid nitrogen	Record factor used as Method Parameter and its source in Method Reference.	<Eurofoods ME-code>ME71 <Component>PROT
MI0122	Protein calculated from protein nitrogen	Record factor used as Method Parameter and its source in Method Reference.	<Eurofoods ME-code>ME72 <Component>PROT

Code	Descriptor	Scope Note	Additional information
MI0123	Protein calculated from total nitrogen	Record factor used as Method Parameter and its source in Method Reference. For label values (previously ME94) this will be '6.25' and 'EU (1990)'. If the factor is modified from that in a published source, the basis for the factor should be documented in the Method Description.	\<Eurofoods ME-code>ME73;ME93;ME94;ME246;ME258 \<Component>PROT
MI0124	Protein calculated as the sum of individual amino acids		\<Formula>Protein = sum of individual amino acids \<Component>PROT
MI0131	Carbohydrate, total, calculated by difference		\<Formula>Total carbohydrate = 100 - (protein + fat + water + alcohol + ash) \<Eurofoods ME-code>ME247;ME26 \<Component>CHOT
MI0141	Water by difference, generic	Use when water is calculated from dry matter.	\<Formula>Water = 100 - dry matter \<Eurofoods ME-code>ME170 \<Component>WATER
MI0142	Water by difference	Use when water content is calculated from protein, fat, available carbohydrate, dietary fibre, and alcohol.	\<Formula>Water = 100 - (protein + fat + carbohydrate + dietary fibre + alcohol) \<Eurofoods ME-code>ME202 \<Component>WATER
MI0143	Dry matter calculated from water content	Use for dry matter being calculated by difference (100 - water).	\<Formula>Dry matter = 100 - water \<Eurofoods ME-code>ME203 \<Component>DRYMAT
MI0151	Sugar calculated as the sum of individual mono-, di-, and tri-saccharides		\<Formula>Sugar = sum of individual monosaccharides, disaccharides and trisaccharides \<Eurofoods ME-code>ME114 \<Component>SUGAR
MI0153	Sugar calculated as the sum of total mono- and di-saccharides	Use if the intermediate totals for MNSAC and DISAC were used and are included in the dataset.	\<Formula>Sugar = sum of total monosaccharides and total di-saccharides \<Component>SUGAR
MI0161	Starch by difference	Use if starch is calculated from available carbohydrate (glycaemic carbohydrate and sugar.	\<Formula>Starch = glycaemic carbohydrates - sugar \<Component>STARCH
MI0171	Dietary fibre calculated from total carbohydrates and available carbohydrate	Use for dietary fibre calculated from total carbohydrates minus available carbohydrate.	\<Formula>Dietary fibre = total carbohydrates minus available carbohydrates \<Eurofoods ME-code>ME99;ME117 \<Component>FIBT

Code	Descriptor	Scope Note	Additional information
MI0172	Dietary fibre calculated from individual fibre fractions		<Formula>Dietary fibre = sum of individual fibre fractions <Eurofoods ME-code>ME262 <Component>FIBT
MI0181	Carbohydrate, available calculated from sugar and starch	Use if only contributing values for total sugar (with or without trisaccharides, reported for the contributing total sugar value) and unmodified starch are summed.	<Formula>Carbohydrate = sugar + starch <Eurofoods ME-code>ME95 <Component>CHO
MI0182	Carbohydrate, available calculated from sugar, starch, oligosaccharides and matodextrins	Use if contributing values for oligosaccharides + maltodextrins are included in the summation.	<Formula>Carbohydrate = sugar + starch + [oligosaccharides] + [maltodextrins] <Eurofoods ME-code>ME96 <Component>CHO
MI0183	Carbohydrate, available, calculated by difference	Use for available carbohydrate (CHO) calculated from the components nitrogen, fat water, dietary fibre (AOAC), alcohol, and sum of macro elements (Na,K,Ca,Mg,Fe,P,Cl).	<Formula>Carbohydrate = 100-(nitrogen * 6.25) - (fat + water + AOAC fibre + alcohol + minerals (Na,K,Ca,Mg,Fe,P,Cl)) <Eurofoods ME-code>ME263 <Component>CHO
MI0201	Fatty acid content calculated on fatty acid profile (%)		<Formula>Fatty acid (g/100 g edible) = Total fatty acids (g fatty acids/100 g edible) * % of individual fatty acid <Eurofoods ME-code>ME219 <Component>FA; FATOT Explanation: This is a conversion of % to unit + matrix unit and is not a true factored summation (since both are measurements for that component). Normally the analytical method will be documented and unit conversion will be part of that method. Thus this Method Indicator will not in general be used.
MI0202	Fatty acids, total fatty acids calculated as sum of individual fatty acids		<Formula>Total fatty acids = sum of individual fatty acids <Eurofoods ME-code>ME200 <Component>FATOT
MI0203	Fatty acids, monounsaturated fatty acids calculated by difference	Use if monounsaturated fatty acids are calculated by difference. This method implies that saturated fatty acids and polyunsaturated fatty acids both are the sums of cis-form fatty acids only.	<Formula>Monounsaturated fatty acids = total fatty acids - (saturated fatty acids + polyunsaturated fatty acids + trans fatty acids) <Eurofoods ME-code>ME214 <Component>FAMS

Code	Descriptor	Scope Note	Additional information
MI0205	Fatty acids, saturated fatty acids by difference	Use if saturated fatty acids are calculated by difference. This method implies that monounsaturated fatty acids and polyunsaturated fatty acids both are the sums of cis-form fatty acids only.	<Formula>Saturated fatty acids = total fatty acids - (monounsaturated fatty acids + polyunsaturated fatty acids + trans fatty acids) <Eurofoods ME-code>ME216 <Component>FASAT
MI0206	Fatty acids, trans fatty acids by difference		<Formula>Trans fatty acids = total fatty acids - (saturated fatty acids + monounsaturated fatty acids + polyunsaturated fatty acids) <Eurofoods ME-code>ME217 <Component>FATRN
MI0207	Fatty acids, total fatty acids calculated from total fat	Use only for the overall total of fatty acids (FACID). Record factor used as Method Parameter and its source in Method Reference. If the factor is modified from that in a published source, the basis for the factor should be documented in the Method Description.	<Formula>Total fatty acids = total fat x fatty acid conversion factor <Eurofoods ME-code>ME218 <Component>FATOT
MI0208	Fatty acids, saturated, calculated as the sum of individual fatty acids, excluding branched chain isomers	Normally used for saturated fatty acids.	<Formula>FASAT = sum of individual fatty acids, excluding branched chain isomers <Component>FASAT
MI0209	Fatty acids, saturated, calculated as the sum of individual fatty acids, including branched chain isomers	Normally used for saturated fatty acids	<Formula>FASAT = sum of individual fatty acids, including branched chain isomers <Component>FASAT
MI0210	Fatty acids, monounsaturated, calculated as sum of individual fatty acids, cis isomers only	Use for monounsaturated fatty acids. Although the identifier FAMCIS is defined for "fatty acids, total monounsaturated cis", the more common FAMS is normally used for cis only. The calculation method including trans isomers may not be required.	<Formula>FAMS = sum of individual fatty acids, cis isomers only <Component>FAMS
MI0211	Fatty acids, monounsaturated, calculated as sum of individual fatty acids, including trans isomers	Use for monounsaturated fatty acids	<Formula>FAMS = sum of individual fatty acids, including trans isomers <Component>FAMS

Code	Descriptor	Scope Note	Additional information
MI0212	Fatty acids, polyun-saturated, calculated as sum of individual fatty acids, all-cis iso-mers only	Use for polyunsaturated fatty acids	<Formula>FAPU = sum of indi-vidual fatty acids, all-cis isomers only <Component>FAPU
MI0213	Fatty acids, polyun-saturated, calculated as sum of individual fatty acids, excluding all-trans isomers	Use for polyunsaturated fatty acids	<Formula>FAPU = sum of indi-vidual fatty acids, excluding all-trans isomers <Component>FAPU
MI0214	Fatty acids, polyun-saturated, calculated as sum of individual fatty acids, including all isomers	Use for polyunsaturated fatty acids	<Formula>FAPU = sum of indi-vidual fatty acids, including all isomers <Component>FAPU
MI0215	Fatty acids, other polyunsaturated fatty acids calculated by difference		<Formula>Other polyunsatu-rated fatty acids = polyunsatu-rated fatty acids - F18:2 - F18:3 [This calculation method equates to the definition of the identifier FAPUOT, which is "fatty acids, other polyunsaturated (= PUFA-linoleic - linolenic)" and thus only "difference" may be sufficient for this method.] <Eurofoods ME-code>ME230 <Component>FAPUOT
MI0216	Fatty acids, total poly-unsaturated n-3 fatty acids	Qualifiers may be required for the n-3 and analogous n-6 to-tals if the identifiers are not uniquely defined, e.g. as me-thylene-separated isomers only.	<Formula>Total polyunsaturated n-3 fatty acids = ? <Component>FACN3;[FACN6]

Code	Descriptor	Scope Note	Additional information
MI0231	Inputation of a component from one or more components in the same food	Use for imputation/calculation of a component value based on the content of one or more other components in the same food. This Method Indicator relates to non-generic calculations and do not apply to energy calculations, nitrogen-to-protein conversion, fatty acids calculations, and/or vitamin activity calculations. The Method Indicator is typically used for estimations of components in "standardised" foods, like milk and milk products and meats (pork, beef, veal, goat, sheep/lamb), e.g. calculation of cholestrol content based on fat/protein content, etc. The basis for the factor should be documented in the Method Description.	
MI0301	Beta-carotene equivalent calculculation including alpha-carotene and cryptoxanthins	Use for calculation of beta-carotene equivalents only if alpha-carotene and cryptoxanthins taken into account, even as zero values.	<Formula>beta-carotene equivalent = beta-carotene+ [(alpha-carotene / 2)] + [(alpha-cryptoxanthin / 2)] + [(beta-cryptoxanthin / 2)] <Eurofoods ME-code>ME190;ME192 <Component>CARTBEQ
MI0302	Carotenes, total, calculated as sum of carotenoids (no activity adjustment)	This total has the separate EuroID of CAROTENS, but such a value might be used for CARTBEQ if no better beta-carotene equivalent value is available.	<Formula>Total carotenes = sum of carotenoids not adjusted for the relative activities <Eurofoods ME-code>ME191 <Component>CARTBEQ
MI0303	Beta-carotene calculated from total vitamin A	Use for betacarotene equivalents calculated from total vitamin A and retinol content and only if the beta-carotene activity factor is 1/6.	<Formula>Carotene = (vitamin A, RE - retinol) x 6 <Eurofoods ME-code>ME249 <Component>CARTBEQ
MI0314	Retinol calculated from individual retinoids	The contributing values should match the individual retinoids reported in the dataset, otherwise detail of the calculation should be reported in the Method Description.	<Formula>Retinol = all-trans retinol + [(0.90 x retinaldehyde)] + [(0.75 x 13-cis-retinol)] + [(0.40 x dehydroretinol)] <Eurofoods ME-code>ME102;ME188 <Component>RETOL
MI0315	Retinol calculated from trans- and cis-retinol		<Formula>Retinol = trans-retinol + cis-retinol <Eurofoods ME-code>ME189 <Component>RETOL

Code	Descriptor	Scope Note	Additional information
MI0316	Retinol by difference	Use when retinol is calculated from total vitamin A acivity and carotene equivalents. Use only if carotene activity factor is 1/6.	<Formula>Retinol = vitamin A, RE - (carotene / 6)
MI0321	Vitamin A activity calculated from retinol and beta-carotene (factor 1/2)		<Formula>Vitamin A = retinol + (beta-carotene / 2) <Eurofoods ME-code>ME101 <Component>VITA
MI0322	Vitamin A activity calculated from retinol and beta-carotene (factor 1/6)		<Formula>Vitamin A = retinol + (beta-carotene / 6) <Eurofoods ME-code>ME169 <Component>VITA
MI0323	Vitamin A activity calculated from retinol, beta-carotene and other pro-vitamin A carotenoids (factors 1/6 and 1/12)	The contributing values should match the individual carotenoids reported in the dataset, otherwise detail of the calculation should be reported in the Method Description.	<Formula>Vitamin A = retinol + (beta-carotene / 6) + (other pro-vitamin A carotenoids / 12) <Eurofoods ME-code>ME198;ME225 <Component>VITA
MI0324	Vitamin A activity calculated from retinol and carotenoids	The contributing values should match the individual carotenoids reported in the dataset, otherwise detail of the calculation should be reported in the Method Description.	<Formula>Vitamin A = retinol + (beta-carotene / 12) + (other pro-vitamin A carotenoids / 24) <Component>VITA
MI0351	Vitamin D activity calculated as the sum of ergocalciferol and cholecalciferol		<Formula>Vitamin D = vitamin D2 + vitamin D3 <Eurofoods ME-code>ME106 <Component>VITD
MI0352	Vitamin D activity calculated as ergocalciferol		<Formula>Vitamin D = vitamin D2 <Eurofoods ME-code>ME193 <Component>VITD
MI0353	Vitamin D activity calculated from cholecalciferol and 25-hydroxy cholecalciferol (factor 5)		<Formula>Vitamin D = vitamin D3 + (5 x 25-hydroxy-vitamin D) <Eurofoods ME-code>ME194 <Component>VITD
MI0354	Vitamin D activity calculated from cholecalciferol, ergocalciferol and 25-hydroxy cholecalciferol	Record factor 'a' used as Method Parameter. The basis for the factor should be documented in the Method Description.	<Formula>Vitamin D = vitamin D3 + [vitamin D2] + (a x 25-hydroxy-vitamin D) <Component>VITD
MI0365	Vitamin E activity calculated from tocopherols and tocotrienols		<Formula>Vitamin E = d-alpha-tocopherol + [(beta-tocopherol / 2)] + [(gamma-tocopherol / 10)] + [(alpha-tocotrienol / 3)] <Eurofoods ME-code>ME103 <Component>VITE

Code	Descriptor	Scope Note	Additional information
MI0368	Vitamin E activity calculated as d-alpha-tocopherol		<Formula>Vitamin E = d-alpha-tocopherol <Component>VITE
MI0369	Vitamin E activity calculated from intrinsic d-alpha-tocoperol and added alpha-tocopherol		<Formula>Vitamin E = intrinsic d-alpha-tocopherol + (0.5 x added alpha-tocopherol) <Component>VITE
MI0421	Niacin equivalents calculated from niacin and tryptophan		<Formula>Niacin equivalent = niacin + (tryptophan / 60) <Eurofoods ME-code>ME168 <Component>NIAEQ
MI0422	Niacin equivalents calculated from niacin and tryptophan (reduced niacin availability)	Use if performed niacin is only partly available.	<Formula>Niacin equivalent = (niacin x 30 / 100) + (tryptophan / 60) <Eurofoods ME-code>ME173 <Component>NIAEQ
MI0423	Niacin equivalents calculated from tryptophan only	Use if all preformed niacin is considered unavailable and has not been included in the value for NIAEQ.	<Formula>Niacin equivalent = (tryptophan / 60) <Component>NIAEQ
MI0451	Folate calculated by summation of free folic acid and bound folic acid		<Formula>Folate = free folic acid + bound folic acid <Eurofoods ME-code>ME107 <Component>FOL
MI0452	Folate calculated from free folic acid and bound folic acid		<Formula>Folate = free folic acid + (bound folic acid / 5) <Eurofoods ME-code>ME185 <Component>FOL
MI0453	Folate calculated from intrinsic folic acid and added folic acid		<Formula>Folate = intrinsic folic acid + (added folic acid x 1.7) <Component>FOL
MI0512	Sugar calculated as the sum of individual mono- and disaccharides	The contributing values should match the individual sugars reported in the dataset, otherwise detail of the calculation should be reported in the Method Description.	<Formula>Sugar = sum of individual monosaccharides and disaccharides <Eurofoods ME-code>ME115;ME116;ME166;ME206;ME244 <Component>SUGAR
MI1001	Ashing		
MI1002	Spectroscopy		
MI1006	Atomic absorption spectroscopy		<Eurofoods ME-code>ME10 <Component>MIN;TREL
MI1010	Bioassay		
MI1013	Colorimetry		
MI1015	Column chromatography		<Eurofoods ME-code>ME31 <Component>VITA
MI1017	Drying		

Code	Descriptor	Scope Note	Additional information
MI1018	Dry ashing		<Eurofoods ME-code>ME34
MI1019	Dye binding		<Eurofoods ME-code>ME35 <Component>CHORL
MI1021	Enzyme hydrolysis		<Eurofoods ME-code>ME37
MI1023	Chemical assay		
MI1025	Freeze drying		<Eurofoods ME-code>ME43 <Component>DRYMAT;WATER
MI1026	Gas-liquid chromato-graphy		<Eurofoods ME-code>ME45 <Component>CHORL;ALC;FA
MI1037	Ion-selective elec-trode		<Eurofoods ME-code>ME58 <Component>CA;MG
MI1038	Karl Fisher titration		<Eurofoods ME-code>ME60 <Component>WATER
MI1039	Distillation titrimetry	Use for nirtogen determination according to Kjeldahl	<Component>NT
MI1044	Polarimetry		<Eurofoods ME-code>ME70 <Component>STARCH;FIBT
MI1045	Radio-protein binding assay		<Eurofoods ME-code>ME75
MI1046	Reductiometry		<Eurofoods ME-code>ME79
MI1049	Schoorl method		<Eurofoods ME-code>ME82 <Component>SUGAR
MI1053	Titrimetry		<Eurofoods ME-code>ME86
MI1054	Total sugars method		<Eurofoods ME-code>ME87 <Component>SUGAR
MI1060	Enzymatic-colorimetric method		<Component>FIBT;CHORL
MI1061	Enzymatic, other method		<Component>FIBT
MI1063	Englyst method		<Eurofoods ME-code>ME36[;ME131;ME132] <Component>FIBT
MI1064	Southgate method		<Eurofoods ME-code>ME83[;ME90] <Component>FIBT
MI1081	Distillation		
MI1103	Air drying		The drying temperature should be specified using the Method description. <Eurofoods ME-code>ME171 <Component>DRYMAT;WATER
MI1121	Hydrolysis		

Code	Descriptor	Scope Note	Additional information
MI1137	High-performance liquid chromatography		<Eurofoods ME-code>ME45 <Component>SUGAR;STARCH;VITA;THIA;RIBF;VITB6;VITC;VITE;VITD;VITK;CARTA;CARTB;NIA
MI1142	Atomic emission spectroscopy		<Eurofoods ME-code>ME236 <Component>MIN;TREL
MI1144	Chromatography		<Eurofoods ME-code>ME242
MI1152	Fluorimetric method	Use for thiochrome method	<Eurofoods ME-code>ME39;ME261 <Component>VITC;THIA
MI1154	Colorimetric method		<Component>K;MG;FE;CU;ZN
MI1160	Bomb calorimetry		<Component>ENERA
MI1165	Nuclear magnetic resonance spectroscopy		<Component>WATER;FAT
MI1173	Microbiological assay		<Component>THIA;RIBF;VITB6;VITB12;NIA
MI1174	Animal bioassay		<Component>VITD
MI1182	Gas chromatography mass spectroscopy		<Component>FOL;FOLACID;FA;F18:3CN3;F18:3CN6;F18:2CN6
MI1183	Liquid chromatography - mass spectrometry		<Component>FOL;FOLACID
MI1196	Microwave ashing		
MI1197	Wet ashing		
MI1202	Acid hydrolysis with gravimetric quantification		<Eurofoods ME-code>ME602 <Component>FAT
MI1203	Radioimmunoassay		<Eurofoods ME-code>ME77 <Component>FOL;VITB12;VITD
MI1205	Gas chromatography		<Eurofoods ME-code>ME604
MI1207	Refractometry		<Eurofoods ME-code>ME606 <Component>SUGAR
MI1208	Specific gravity measurement		<Eurofoods ME-code>ME607 <Component>ALC
MI1209	Inductively Coupled Plasma Mass Spectrometry		<Eurofoods ME-code>ME608 <Component>MIN;TREL
MI1212	Vacuum drying		The drying temperature may be specified using the Method Description. <Eurofoods ME-code>ME611;ME88 <Component>DRYMAT;WATER

Code	Descriptor	Scope Note	Additional information
MI1213	Enzymatic colorimetry		\<Eurofoods ME-code>ME612 \<Component>STARCH
MI1214	Binding assay		\<Eurofoods ME-code>ME613
MI1215	Potentiometry		\<Eurofoods ME-code>ME614
MI1216	Thermal combustion		
MI1218	Enzymatic		
MI1301	Dumas method		\<Eurofoods ME-code>ME129 \<Component>NT
MI1302	Solvent extraction		\<Eurofoods ME-code>ME240 \<Component>FAT
MI1303	X-ray fluorescence spectroscopy		\<Eurofoods ME-code>ME92
MI1304	Near infrared spec-troscopy		\<Eurofoods ME-code>ME66 \<Component>WATER;PROT
MI1305	Inductively Coupled Plasma Atomic Emis-sion Spectrometry		\<Eurofoods ME-code>ME257 \<Component>MIN;TREL
MI1307	Enzymatic-gravimetric method		\<Eurofoods ME-code>ME135 \<Component>FIBT
MIR001	Analytical methods	This term is for CLASSIFICA-TION ONLY; DO NOT USE term in indexing. Use a more precise narrower term.	
MIR002	Calculation methods	This term is for CLASSIFICA-TION ONLY; DO NOT USE term in indexing. Use a more precise narrower term.	
MIR003	Analytical or calcula-tion method not known		
MIR004	Difference	This term is for CLASSIFICA-TION ONLY; DO NOT USE term in indexing. Use a more precise narrower term.	
MIR005	Factored summation	This term is for CLASSIFICA-TION ONLY; DO NOT USE term in indexing. Use a more precise narrower term.	
MIR006	Simple summation	This term is for CLASSIFICA-TION ONLY; DO NOT USE term in indexing. Use a more precise narrower term.	
MIR007	Imputation	This term is for CLASSIFICA-TION ONLY; DO NOT USE term in indexing. Use a more precise narrower term.	

Code	Descriptor	Scope Note	Additional information
MIR008	Recipe calculation methods	This term is for CLASSIFICATION ONLY; DO NOT USE term in indexing. Use a more precise narrower term.	

2.8.2 METHOD INDICATOR THESAURUS, VERSION 1.0 – SYSTEMATIC DISPLAY

Analytical methods [MIR001]
    Ashing [MI1001]
        Dry ashing [MI1018]
        Microwave ashing [MI1196]
        Wet ashing [MI1197]
    Binding assay [MI1214]
        Radioimmunoassay [MI1203]
        Radio-protein binding assay [MI1045]
    Bioassay [MI1010]
        Animal bioassay [MI1174]
        Microbiological assay [MI1173]
    Chemical assay [MI1023]
        Colorimetric method [MI1154]
        Fluorimetric method [MI1152]
    Chromatography [MI1144]
        Column chromatography [MI1015]
        Gas chromatography [MI1205]
        Gas chromatography mass spectroscopy [MI1182]
        Gas-liquid chromatography [MI1026]
        High-performance liquid chromatography [MI1137]
        Liquid chromatography - mass spectrometry [MI1183]
    Colorimetry [MI1013]
        Dye binding [MI1019]
        Enzymatic colorimetry [MI1213]
        Total sugars method [MI1054]
    Distillation [MI1081]
    Drying [MI1017]
        Air drying [MI1103]
        Freeze drying [MI1025]
        Vacuum drying [MI1212]
    Enzymatic [MI1218]
        Englyst method [MI1063]
        Enzymatic, other method [MI1061]
        Enzymatic-colorimetric method [MI1060]
        Enzymatic-gravimetric method [MI1307]
        Southgate method [MI1064]
    Hydrolysis [MI1121]
        Acid hydrolysis with gravimetric quantification [MI1202]
        Enzyme hydrolysis [MI1021]
    Polarimetry [MI1044]
    Potentiometry [MI1215]
        Ion-se-lective electrode [MI1037]
    Reductiometry [MI1046]
    Refractometry [MI1207]
    Solvent extraction [MI1302]
    Specific gravity measurement [MI1208]
    Spectroscopy [MI1002]
        Atomic absorption spectroscopy [MI1006]
        Atomic emission spectroscopy [MI1142]
        Inductively Coupled Plasma Atomic Emission Spectrometry [MI1305]
        Inductively Coupled Plasma Mass Spectrometry [MI1209]
        Near infrared spectroscopy [MI1304]
        Nuclear magnetic resonance spectroscopy [MI1165]
        X-ray fluorescence spectroscopy [MI1303]
    Thermal combustion [MI1216]
        Bomb calorimetry [MI1160]
        Dumas method [MI1301]
    Titrimetry [MI1053]
        Distillation titrimetry [MI1039]
        Karl Fisher titration [MI1038]
        Schoorl method [MI1049]
Analytical or calculation method not known [MIR003]
Calculation methods [MIR002]
    Difference [MIR004]
        Beta-carotene calculated from total vitamin A [MI0303]
        Carbohydrate, available, calculated by difference [MI0183]
        Carbohydrate, total, calculated by difference [MI0131]
        Dietary fibre calculated from total carbohydrates and available carbohydrate [MI0171]

Dry matter calculated from water content [MI0143]
Fatty acids, monounsaturated fatty acids calculated by difference [MI0203]
Fatty acids, other polyunsaturated fatty acids calculated by difference [MI0215]
Fatty acids, saturated fatty acids by difference [MI0205]
Fatty acids, trans fatty acids by difference [MI0206]
Retinol by difference [MI0316]
Starch by difference [MI0161]
Water by difference [MI0142]
Water by difference, generic [MI0141]
Factored summation [MIR005]
Beta-carotene equivalent calculculation including alpha-carotene and cryptoxanthins [MI0301]
Energy calculated according to Atwater (kcal, general factors) [MI0102]
Energy calculated according to Atwater (kJ, general factors) [MI0111]
Energy calculated according to Atwater (specific factors) [MI0106]
Energy calculated according to Codex Alimentarius (kcal) [MI0103]
Energy calculated according to Codex Alimentarius (kJ) [MI0104]
Energy calculated according to EC Nutrition Labelling Directive (kcal) [MI0108]
Energy calculated according to EC Nutrition Labelling Directive (kJ) [MI0107]
Energy calculated according to EC Nutrition Labelling Directive (kJ, polydextrose exception) [MI0109]
Energy calculated according to Nordic Nutrition Recommendations (kJ) [MI0110]
Energy calculated according to Southgate (kcal) [MI0101]
Energy calculated according to Southgate (kJ) [MI0105]
Fatty acid content calculated on fatty acid profile (%) [MI0201]
Fatty acids, total fatty acids calculated from total fat [MI0207]
Folate calculated from free folic acid and bound folic acid [MI0452]
Folate calculated from intrinsic folic acid and added folic acid [MI0453]
Niacin equivalents calculated from niacin and tryptophan (reduced niacin availability) [MI0422]
Niacin equivalents calculated from niacin and tryptophan [MI0421]
Niacin equivalents calculated from tryptophan only [MI0423]
Protein calculated from amino acid nitrogen [MI0121]
Protein calculated from protein nitrogen [MI0122]
Protein calculated from total nitrogen [MI0123]
Retinol calculated from individual retinoids [MI0314]
Vitamin A activity calculated from retinol and beta-carotene (factor 1/2) [MI0321]
Vitamin A activity calculated from retinol and beta-carotene (factor 1/6) [MI0322]
Vitamin A activity calculated from retinol and carotenoids [MI0324]
Vitamin A activity calculated from retinol, beta-carotene and other pro-vitamin A carotenoids (factors 1/6 and 1/12) [MI0323]
Vitamin D activity calculated from cholecalciferol and 25-hydroxy cholecalciferol (factor 5) [MI0353]
Vitamin D activity calculated from cholecalciferol, ergocalciferol and 25-hydroxy cholecalciferol [MI0354]
Vitamin E activity calculated from intrinsic d-alpha-tocoperol and added alpha-tocopherol [MI0369]
Vitamin E activity calculated from tocopherols and tocotrienols [MI0365]
Imputation [MIR007]
Inputation of a component from one or more components in the same food [MI0231]
Simple summation [MIR006]
Carbohydrate, available calculated from sugar and starch [MI0181]
Carbohydrate, available calculated from sugar, starch, oligosaccharides and matodextrins [MI0182]
Carbohydrate, EC Nutrition Labelling Directive, calculated from available carbohydrate and polyols [MI0001]
Carotenes, total, calculated as sum of carotenoids (no activity adjustment) [MI0302]
Dietary fibre calculated from individual fibre fractions [MI0172]
Fatty acids, monounsaturated, calculated as sum of individual fatty acids, cis isomers only [MI0210]
Fatty acids, monounsaturated, calculated as sum of individual fatty acids, including trans isomers [MI0211]
Fatty acids, polyunsaturated, calculated as sum of individual fatty acids, including all isomers [MI0214]
Fatty acids, polyunsaturated, calculated as sum of individual fatty acids, all-cis isomers only [MI0212]
Fatty acids, polyunsaturated, calculated as sum of individual fatty acids, excluding all-trans isomers [MI0213]
Fatty acids, saturated, calculated as the sum of individual fatty acids, excluding branched chain isomers [MI0208]
Fatty acids, saturated, calculated as the sum of individual fatty acids, including branched chain isomers [MI0209]
Fatty acids, total fatty acids calculated as sum of individual fatty acids [MI0202]
Fatty acids, total polyunsaturated n-3 fatty acids [MI0216]
Folate calculated by summation of free folic acid and bound folic acid [MI0451]
Protein calculated as the sum of individual amino acids [MI0124]
Retinol calculated from trans- and cis-retinol [MI0315]
Sugar calculated as the sum of individual mono-, di-, and tri-saccharides [MI0151]
Sugar calculated as the sum of individual mono- and disaccharides [MI0512]
Sugar calculated as the sum of total mono- and di-saccharides [MI0153]
Vitamin D activity calculated as ergocalciferol [MI0352]
Vitamin D activity calculated as the sum of ergocalciferol and cholecalciferol [MI0351]
Vitamin E activity calculated as d-alpha-tocopherol [MI0368]
Recipe calculation methods [MIR008]
EuroFIR recipe calculation procedure [MI0002]
Ingredient level calculation procedure [MI0004]
Other recipe calculation procedure [MI0005]
Recipe level calculation procedure [MI0003]

A set of standard vocabularies (thesauri) was defined within the COST Action 99 / EURO-FOODS recommendations for data interchange and management and further amended in the EPIC data interchange project. Each thesaurus consists of a set of concepts that may be arranged within a hierarchy. A concept is represented by a main descriptor – a term representing the concept – and is generally further described with a scope note, additional information, synonyms and related terms.

All thesauri are available on the EuroFIR technical website and updated regularly. The thesauri can found at http://eurofir.org/eurofir/EuroFIRThesauri.asp.