

# **The Thesaurus Manager facilities for maintaining thesauri**

Description of setup, viewing and editing features of the thesaurus management tool

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## Introduction

Maintenance of the EuroFIR thesauri is performed by appointed persons - editors – (Owner and co-Editors) using the Thesaurus Manager software tool, which also permits read-only access by a wider audience of thesaurus users (Guests). This general (Guest) access is currently available on the EuroFIR server at:

<http://ethesaurus.eurofir.org/> (username: eThesaurusGuest, password: guest\$Welcome).

The Thesaurus Manager tool supports thesaurus maintenance by providing the facilities to setup, copy, view and edit thesauri. Copying is used to create a new version of an existing thesaurus. Changes to a thesaurus term are documented in its *Editor's notes* field.

Thesaurus Manager also allows a thesaurus to be exported in various formats that are described at the end of this document.

In March 2016, functions of the Thesaurus manager software tool were improved. The changes comprised:

- Introduction of a publication date as an identifier of a thesaurus.

- Date of creation and update of a thesaurus made available in the Edit mode accessed only by editors.

- Delete* button removed from the *Selection* screen and introduced to the *Setup* screen.

- DRAFT (working) versions of the thesauri made non-public.

- Introduction of *Open all* and *Close all* descriptors in the term list window.

- Introduction of *Ctrl-F* option for searches for a descriptor and a code in a term list window.

- Introduction of a clipboard for coping *Scope notes* and *Additional information* in the Term editing form.

The first part of this document describes the Edit mode that can be accessed by editors only. The second part informs about a View mode for Guest users for public viewing. The third part presents available export formats.

## Edit mode

### Thesaurus Selection screen

The Thesaurus Selection screen appears immediately after logging on to the Thesaurus Manager tool as an editor and can be returned to when viewing an individual thesaurus by clicking on the *Select* option at the top left of the display.

It allows the user to select a thesaurus, and an action to perform on it, from the list displayed, or to create a new thesaurus. The facilities for setting up, viewing and editing thesauri, together with the main features of their content, are described in following sections.

Figure 1 shows the Thesaurus Selection screen for a user that owns some of the thesauri listed.






EuroFIR Thesaurus Manager European Food Information Resource									
Select									
Welcome to the EuroFIR Thesaurus Manager									
Select an action from the list below or ► Create a new thesaurus.									
Action	Thesaurus	Version	Owner	Editor 1	Editor 2	Published	Created	Updated	
<a href="#">E</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	Document Repository folders	1.0	Macháčková Marie	Anders Møller			2011-06-30	2011-06-30	
<a href="#">E</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	DRAFT EuroFIR Component Thesaurus	1.4	Macháčková Marie	Anders Møller			2012-11-21	2015-12-16	
<a href="#">E</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	DRAFT EuroFIR Country Code Thesaurus	1.0	Macháčková Marie	Anders Møller			2015-09-04	2015-10-09	
<a href="#">E</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	DRAFT EuroFIR Food Classification Thesaurus	LanguaLTM 2014-1.0	Macháčková Marie	Anders Møller			2016-03-13	2016-03-13	
<a href="#">E</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	DRAFT EuroFIR Language Code Thesaurus	1.0	Macháčková Marie	Anders Møller			2015-08-03	2015-10-09	
<a href="#">E</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	DRAFT EuroFIR Method Indicator Thesaurus	1.4	Macháčková Marie	Anders Møller			2012-02-22	2016-01-25	
<a href="#">E</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	DRAFT EuroFIR Value Type Thesaurus	1.2	Macháčková Marie	Anders Møller			2015-08-27	2016-01-27	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Acquisition Type Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	2007-09-24	2007-10-31	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Acquisition Type Thesaurus	1.1	Macháčková Marie	Anders Møller		2011-09-08	2008-04-16	2008-04-16	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Component Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	2007-09-24	2009-01-27	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Component Thesaurus	1.1	Macháčková Marie	Anders Møller		2010-06-21	2008-04-16	2010-06-16	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Component Thesaurus	1.2	Macháčková Marie	Anders Møller		2011-08-17	2011-08-17	2011-08-17	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Component Thesaurus	1.3	Macháčková Marie	Anders Møller		2012-05-28	2010-05-25	2012-05-28	
<a href="#">E</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Component Thesaurus original copy	1.0	Macháčková Marie	Anders Møller			2008-05-21	2008-05-21	
<a href="#">E</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Food Classification Thesaurus	LanguaLTM 2014-1.0	Macháčková Marie	Anders Møller			2016-01-19	2016-02-06	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Matrix Unit Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	2007-09-10	2007-11-02	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Matrix Unit Thesaurus	1.1	Macháčková Marie	Anders Møller		2011-09-08	2008-04-16	2008-04-16	
<a href="#">E</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Matrix Unit Thesaurus	1.2	Macháčková Marie	Anders Møller			2012-03-29	2012-03-29	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Matrix Unit Thesaurus	1.3	Macháčková Marie	Anders Møller		2011-09-10	2012-03-29	2016-02-08	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Method Indicator Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	2007-09-24	2008-02-02	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Method Indicator Thesaurus	1.1	Macháčková Marie	Anders Møller		2011-09-08	2008-04-16	2008-12-18	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Method Indicator Thesaurus	1.3	Macháčková Marie	Anders Møller		2011-09-10	2012-02-22	2016-02-04	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Method Type Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	2007-09-24	2008-08-16	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Method Type Thesaurus	1.1	Macháčková Marie	Anders Møller		2011-09-08	2008-04-16	2008-04-16	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Reference Type Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	2007-09-24	2007-10-31	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Reference Type Thesaurus	1.1	Macháčková Marie	Anders Møller		2011-09-08	2008-04-16	2008-04-16	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Unit Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	2007-09-10	2007-11-15	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Unit Thesaurus	1.1	Macháčková Marie	Anders Møller		2011-09-08	2008-04-16	2010-03-05	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Value Type Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	2007-09-10	2008-08-16	
<a href="#">V</a> <a href="#">C</a> <a href="#">S</a> <a href="#">R</a>	EuroFIR Value Type Thesaurus	1.1	Macháčková Marie	Anders Møller		2011-09-08	2008-04-16	2008-04-16	

Fig. 1 Thesaurus selection screen

The thesauri that are listed on the Thesaurus Selection screen and the actions that are available for each thesaurus depend on the user's username and the setup parameters held for the thesaurus.

A Thesaurus Manager user may be the Owner of a thesaurus, an Editor for it or a general user (Guest) able to view and generate reports for any Public thesaurus.

The Thesaurus selection screen in an Edit mode has 10 columns:

The Thesaurus selection screen in an Edit mode has 10 columns.	
Action	For selection of an action performed with the thesaurus.
	 View the selected thesaurus
	 Report generation for the selected thesaurus
	 Edit the selected thesaurus
	 Copy the selected thesaurus
	 Setup display and modification for the selected thesaurus
	The options of actions are selected by clicking on the icon of a boxed initial. See below for information about availability of actions to individual categories of users.
Red/Green marks	Red and green marks indicate unpublished and published thesauri, respectively. Thesauri marked red are DRAFT (working) versions of the thesauri that are not available publicly in a View mode for Guest users. Published thesauri (marked green) are available for public viewing.
Thesaurus	Thesaurus name
Version	Number of version of the Thesaurus. The most recent version has the highest number.
Owner	Name of the Owner of a thesaurus
Editor 1	Name of a co-editor of a thesaurus designated by the Owner
Editor 2	Name of a co-editor of a thesaurus designated by the Owner
Published	Publication date has been newly introduced as an identifier of each individual thesaurus.
Created	The date of creation of a thesaurus
Updated	The date of last modification of a thesaurus.

## Thesaurus ownership and permissions

The thesauri that are listed on the Thesaurus Selection screen and the actions that are available for each thesaurus depend on the user's username and the setup parameters held for the thesaurus.

A thesaurus is identified by a name, a version designation, and by a publishing date.

A thesaurus can be setup as for Public viewing or restricted to the Owner and Editors.

A Thesaurus Manager user may be the Owner of a thesaurus, an Editor for it or a general user able to view and generate reports for any Public thesaurus. A user is the Owner of a thesaurus (version) if it was created new or as a copy under their username. The Owner is an Editor of the thesaurus and can designate up to two co-editors, selected from a list of existing usernames.

The action icons displayed for each thesaurus depend on the user's status for that thesaurus and are available as shown in the table below.

		<b>Owner</b>	<b>Editor</b>	<b>Other user</b>
	View	x	x	✓
	Report	✓	✓	✓
	Edit	✓	✓	x
	Copy	✓	✓	x
	Setup	✓	x	x

The Delete button has been newly removed from the Thesaurus Selection Screen and made available in the Thesaurus Setup screen (see below). Only the Owner has the right to delete a thesaurus using the Setup display.

The View option for a Guest user displays the content of the thesaurus in read-only mode and is not provided to Editors, who can access the same features in Edit mode.

## Thesaurus Setup screen

When the Owner of a thesaurus selects the *Setup* option, the Thesaurus Setup screen is displayed, as shown in Figure 2.

A *Delete* Thesaurus function is newly available on the top of the Setup screen. Only the Owner has the right to delete a thesaurus.

The thesaurus Owner, creation date and date of last setup modification are displayed.

The *Thesaurus name* and *Version* are available to be changed, although care must be exercised as thesauri are also internally identified at the time that they were created (new or as a copy) and the owner-defined name plus version should not be changed to identify a version of the thesaurus that existed previously.

## Setup for Thesaurus 31

► Delete Thesaurus

Owner Macháčková Marie  
Created 2011-08-17  
Modified 2011-08-17

Thesaurus name   
Version   
Co-editor 1   
Co-editor 2   
Publication date  ► Clear  
Public ☐ No ☒ Yes

Code length

Initial letter in codes ☒ No ☐ Yes  
Descriptor case ☒ As typed ☐ lower ☐ UPPER  
Synonym case ☒ As typed ☐ lower ☐ UPPER

Inactive scope note

Classification scope note

**Figure 2:** Thesaurus Setup screen for EuroFIR Component Thesaurus version 1.2

The Owner can select one or two co-Editors from a drop-down list of user names, as shown in Figure 3.

Thesaurus name	DRAFT EuroFIR Component Thesaurus
Version	1.4
Co-editor 1	Anders Møller
Co-editor 2	No co-editor
Publication date	Anders Møller
Public	Anders Møller (L)
Code length	Erik Nørby
Initial letter in codes	Guest
Descriptor case	Guest
Synonym case	Ian Unwin
	Jayne Ireland
	Jayne Ireland (L)
	As typed lower UPPER
	As typed lower UPPER

**Figure 3:** Editor drop-down

*Publication date* has been newly introduced as an identifier of a thesaurus. The dates of the versions published before 2013 have been inserted by Anders Møller on the basis of available background information about history of their publication.

*Publication date* can be set up automatically using a today link (*Today*) if empty.

Publication date		► Today
Public	<input checked="" type="radio"/> No	<input type="radio"/> Yes

If set, the thesaurus is locked and cannot be changed unless the date is deleted.

Publication date	17/08/2011	► Clear
Public	<input type="radio"/> No	<input checked="" type="radio"/> Yes

An option to set the thesaurus as *Public*, or not, is provided.

A value can be set for the length of code (*Code length*) for a thesaurus term, as it is automatically generated, although the editor can replace this with a user-assigned alternative, such as the EuroFIR Component Identifier in the Component Thesaurus.

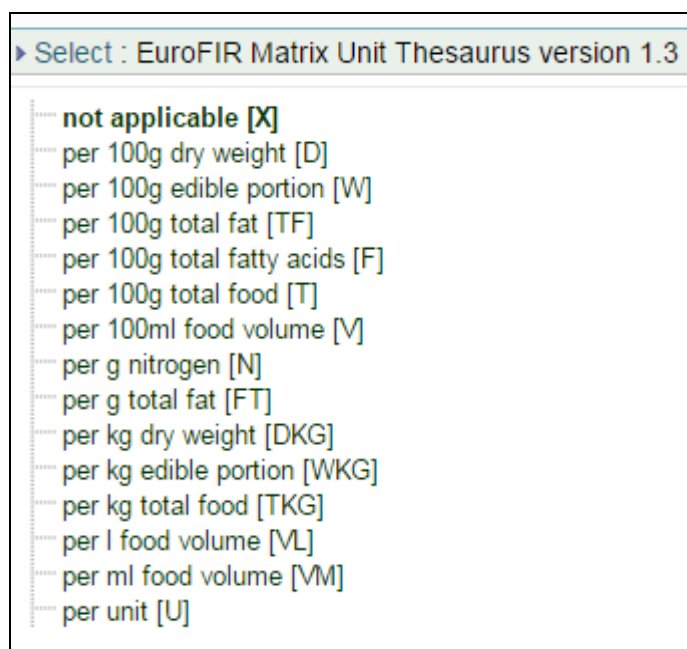
A setting is specified for the automatically generated code to start with a letter (*Initial letter in codes*). The case for the Descriptor (*Descriptor case*) and Synonym (*Synonym case*) texts can be set to be as typed, or as lowercase or uppercase.

The edit facility for each thesaurus term allows it to be marked as *Active* and as a *Classification term*. The setup screen allows the editor to define a standard initial text for the Scope Notes of Inactive terms (*Inactive scope note*) and of Classification terms (*Classification scope note*) in the thesaurus. Further information appropriate to the individual term can be entered into its record. This allows the original *Scope Notes* for deprecated terms and additional description for *Classification terms* to be included in the information held for a term.

Save and Cancel buttons are provided to save or cancel changes made within the Setup form.

## Term list window

The screen for viewing and editing thesaurus terms consists of a left-hand window that lists the terms and a right-hand display of the information for the selected term, either read-only if in View mode or with options to add and revise content if in Edit mode.

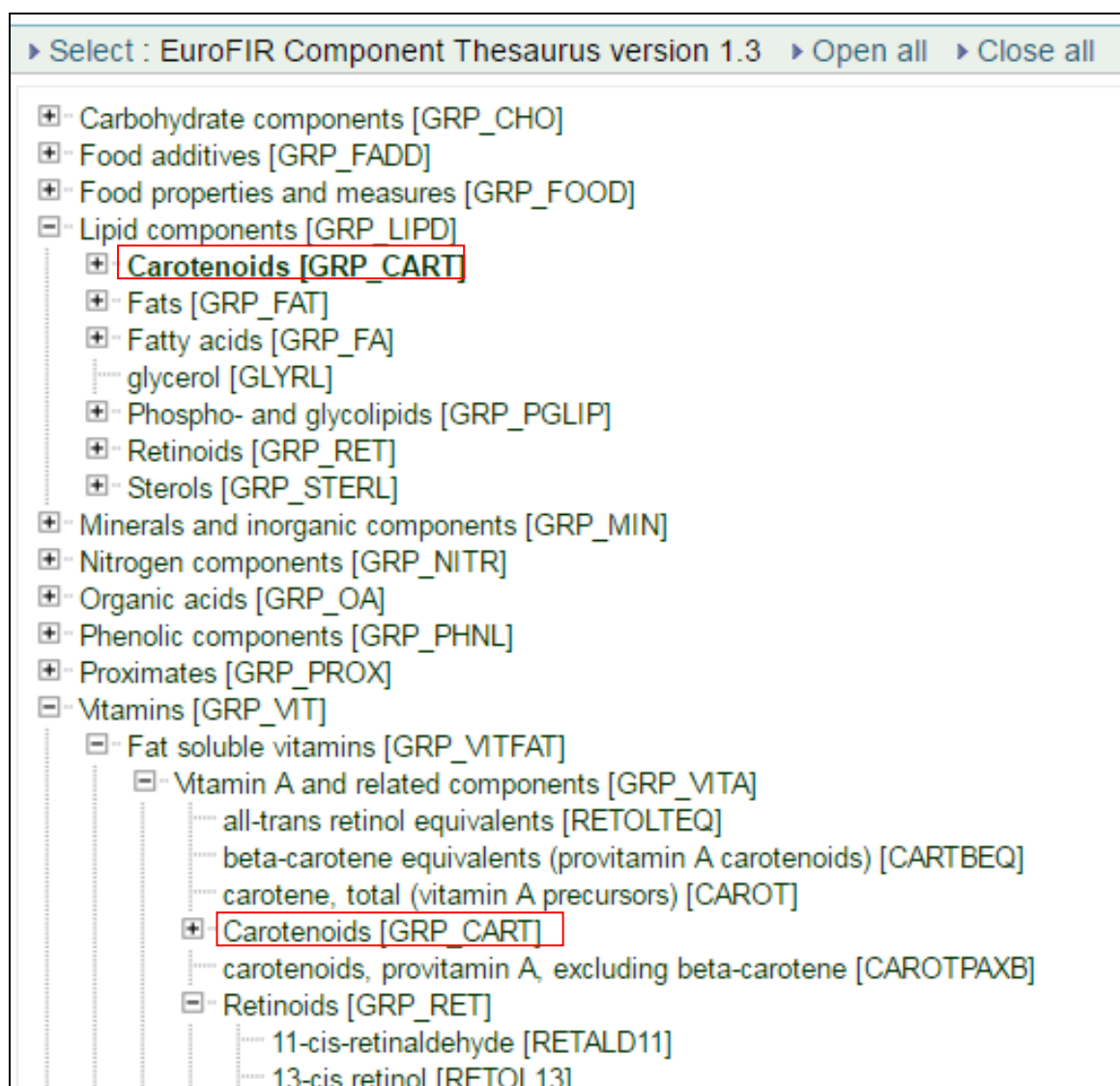


**Figure 4:** Matrix Unit thesaurus, version 1.3, a simple list

Some EuroFIR Thesauri are short, simple lists of terms, as is the case for the Matrix Unit Thesaurus shown in Figure 4. The term descriptors are listed, with the corresponding term codes suffixed in square brackets.

Other EuroFIR Thesauri, in particular the Component Thesaurus and the Method Indicator Thesaurus are extensive lists of terms. Thesaurus Manager supports the organisation of such complex lists of terms into multi-level hierarchies so that each term can be associated with a broader term or classification group. A term can be copied to appear under more than one parent term or classification group, i.e. the program supports a polyhierarchical arrangement of terms.





**Figure 5:** Component Thesaurus hierarchy; multi-parent term highlighted.

As shown in Figure 5, terms in the hierarchical listing can be expanded and collapsed using conventional Windows Plus and Minus icons. The whole structure of terms can be expanded by an *Open all* option in the list heading. This allows search for a descriptor or a code with Ctrl-F. The *Close all* option in the heading allows the total tree to be collapsed to show only the top level terms. When a term is expanded or collapsed, it is selected and the listing is repositioned if necessary to maintain the selected item in view.

## Term editing form

Thesaurus Manager supports the information for individual terms in the various thesaurus using the same procedures and data structure. It is displayed and edited in the Term Edit Form, which constitutes the right-hand side of the Thesaurus Manager display. When a term is selected from the Term List Window, the term is highlighted in bold and its details are shown in the Term Editing Form, see Figure 6.

Some characteristics of the content vary according to the individual thesaurus, with the Component and Method Indicator Thesauri being the most complex. Therefore, for the description of the Term Editing Form, the first of the sections below describes its content in the context of the Component Thesaurus. The second section then notes some particular features of the content of the Method Indicator Thesaurus.

The screenshot shows the 'Term editing form' for the Component Thesaurus. On the left is a tree view of the thesaurus hierarchy. The selected term, 'fatty acid 18:3 n-6 all-cis [F18:3CN6]', is highlighted in bold. The right panel contains the following fields:

- Code:** F18:3CN6
- Active:** ☒ **Classification:** ☐
- Descriptor:** fatty acid 18:3 n-6 all-cis
- Related terms:** Add *None assigned*
- Synonyms:** Add
  - ☐ GLA
  - ☐ linolenic acid, gamma-
- Scope notes:** Copy to clipboard  
Use for all-cis-6,9,12-octadecatrienoic acid
- Additional information:** ChEBI Copy to clipboard  
<ChEBI>28661  
<INFOODS>  
EuroFIR priority: 4
- Editor's notes:** Copied from termId 7109
- Save** button

**Figure 6:** Component Thesaurus entry,  $\gamma$ -linolenic acid

## Component Thesaurus description

The first field in the Term Editing Form displays the term *Code*.

Alongside the field name are links to the three functions *Add*, *Move* and *Copy*.

Clicking the *Add* option creates a new term as a child of the previously selected term and thus will usually be used when viewing a classification or other higher level term.

However, use of the *Move* option allows the position of a term in the hierarchy to be changed. The move is performed in the following steps: selecting the term to be moved, clicking on the *Move* option. An instruction *Please navigate to the menu owner term in the tree* is displayed, as shown in Figure 7. The move is finalised by selecting the new position in the hierarchical display of the Term List Window and clicking on the *Move* option again.

The *Copy* option is not a general facility, but creates a copy of the term that can be linked to an alternative parent, supporting the polyhierarchy functionality. Copying is performed in the following steps: selecting the term to be copied, clicking on the *Copy* option. An instruction *Please navigate to the menu owner term in the tree* is displayed. The copying is finalised by selecting the future position of a copy of a term in the hierarchical display of the Term List Window and clicking on the *Copy* option again.

However, once a copy has been linked to a new position in the hierarchy, it cannot be deleted, although it can be moved again. The *Copy* option should be used with considerable care, particularly as there is no facility to delete a term.

A term can be made Inactive (see below), but cannot be deleted. Inactive terms are currently included in the reports generated by Thesaurus Manager.

The first of the two checkboxes below the *Code* is labelled *Active* and checked by default when a new term is created. If a term becomes deprecated, the editor unchecks the box. As a result, the standard text defined in the setup for the thesaurus is displayed as a prefix to any further *Scope Notes* text. This can be seen in Figure 8, below. The *Classification* checkbox operates in a similar manner, except that by default it is unchecked. The second standard text (see Figure 2) is prefixed to the *Scope Notes* of Classification terms.

The next field is a text box labelled *Descriptor*. The *Descriptor* is the unique name of the term, corresponding to the unique term *Code*. Currently, the convention is not to use special characters such as Greek letters in this field or the following two types of textual input, *Related terms* and *Synonyms*. New *Related Terms* and *Synonyms* are created using the appropriate *Add* option and existing ones can be deleted or edited using the *Delete* or *Edit* buttons, respectively, as seen in Figure 6 for two synonyms.

Code	Please navigate to the new owner term in the tree or ▶ Move to top or click ▶ Cancel
FOLAC	
<input checked="" type="checkbox"/> Active	<input type="checkbox"/> Classification
Descriptor	
folic acid, synthetic	
Related terms ▶ Add None assigned	
Synonyms ▶ Add None defined	
Scope notes ▶ Copy to clipboard	
Use for synthetic folic acid added to foods in fortification.	
Additional information ▶ ChEBI ▶ Copy to clipboard	
<ChEBI>27470 <INFOODS>FOLAC <Notes>Total folate (FOL) includes the contribution of any synthetic folic acid present in addition to documented using the Method Indicator identifier MI0453. Previous code FOLACID EuroFIR priority: 4	
Editor's notes	
Copied from termId 9547	
Save	

**Figure 7:** Component Thesaurus entry, synthetic folic acid

The *Scope notes* field defines the meaning of the term. In the Component Thesaurus, it frequently includes the systematic chemical name of the substance. These often contain highlighting (e.g. italics), special effects (super- and subscripting, small capitals) or special characters (e.g. upper- or lowercase Greek letters). For example, the *Scope Notes* for  $\alpha$ -carotene (*Descriptor* "alpha-Carotene") reads "Also use for the natural, stereospecific form (+)-alpha-carotene, i.e. (6'R)- $\beta$ , $\epsilon$ -carotene (IUPAC)".

Code ▶ Add ▶ Move ▶ Copy
FOLB
<input type="checkbox"/> Active <input type="checkbox"/> Classification
Descriptor
folate, bound
Related terms ▶ Add None assigned
Synonyms ▶ Add None defined
Scope notes NB: This term is only kept for backward compatibility. DO NOT USE for new indexing. ▶ Copy to clipboard
Inactive descriptor
Additional information ▶ Copy to clipboard
<INFOODS>FOLB
Editor's notes
Copied from termId 9548
Save

**Figure 8:** Component Thesaurus inactive entry, bound folate

The *Additional information* field reports any further information associated with the term or its use. The information can incorporate subfields, which are indicated by enclosing a subfield name in angled brackets, e.g. in Figure 7 “<INFOODS>FOLAC” records the corresponding INFOODS tagname (<http://www.fao.org/infoods/infoods/standards-guidelines/food-component-identifiers-tagnames/en/>). The identifier of the corresponding record in EBI’s Chemical Entities of Biological Interest database (<https://www.ebi.ac.uk/chebi/>) is entered as the first subfield, e.g. “<ChEBI>27470”. When the input is saved, the information is processed to generate a link to the external ChEBI record, which can be accessed through the ChEBI label displayed to the right of the *Additional information* field label. Other subfields in use in the Component Thesaurus include ChEBI\_notes, eBASIS ([http://www.eurofir.org/?page\\_id=29](http://www.eurofir.org/?page_id=29)) and Notes, whereas some subfield information such as “Previous code” and “EuroFIR priority” is not marked-up with angled brackets. As in Figure 7, the *Additional Information* text can cross-reference to terms in the Method Indicator Thesaurus.

*Scope note* and *Additional information* can be copied using an option *Copy to clipboard*.

The *Editor’s notes* field allows the editor to record information on the term and its history. Entries such as “Copied from termid 7225” are generated automatically when a thesaurus is copied. As can be seen in Figure 7, detailed information on updates to the information has been added in a fairly structured and compact way, specifying change, date and editor. This could in the future be developed to locate, for example, recently revised thesaurus terms.

Finally a **Save** button is provided to save changes made within the form. If the form is exited before changes are saved, for example to review or copy the text used for a similar term, the changes will be lost.

## Method Indicator Thesaurus content

Although all the thesauri use the same term listing and editing features, the content of the Method Indicator Thesaurus shows some differences from that described above for the Component Thesaurus. Some of these are noted here.

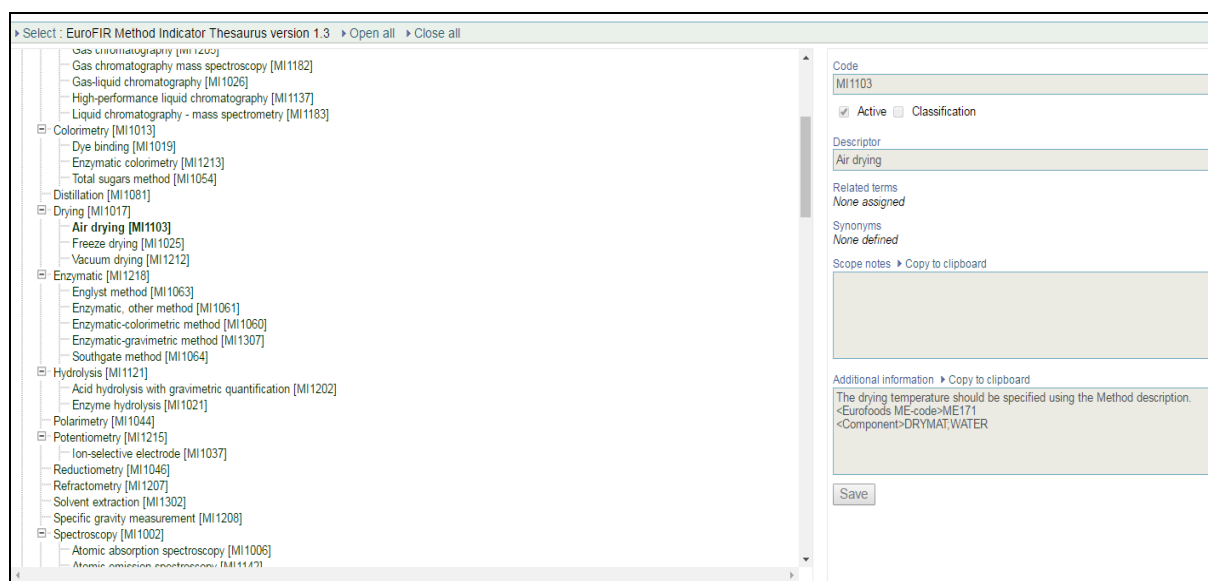
Method terms are collected into major groups for analytical methods and calculation methods, with further groups for recipe calculation methods and imputation methods. Unlike the component identification codes, which are based on the component descriptors, the Method Indicator codes are meaningless identifiers.

The screenshot displays the 'EuroFIR Method Indicator Thesaurus version 1.3' interface. On the left, a tree view lists various calculation methods, with 'Folate calculated from intrinsic folic acid and added folic acid [MI0453]' selected. The main panel on the right shows the details for this entry:

- Code:** MI0453
- Active:** ☒ **Classification:** ☐
- Descriptor:** Folate calculated from intrinsic folic acid and added folic acid
- Related terms:** None assigned
- Synonyms:** None defined
- Scope notes:** Copy to clipboard
- Additional information:** Copy to clipboard
  - Formula:** Folate = intrinsic folic acid + (added folic acid x 1.7)
  - Component:** FOL
- Save** button

**Figure 9:** Method Indicator Thesaurus calculation entry, folate with added folic acid

Figure 9 shows the term for the factored calculation of total folate from the intrinsic folate and synthetic folic acid added to fortify a food item. The *Additional information* subfield Formula details the equation that was used, including the factor applied. At present, the contributing components are not specified using their identification codes, although such an enhancement might be considered in the future. The Component subfield specifies, using their identifiers, one or more components to which the method is applicable.



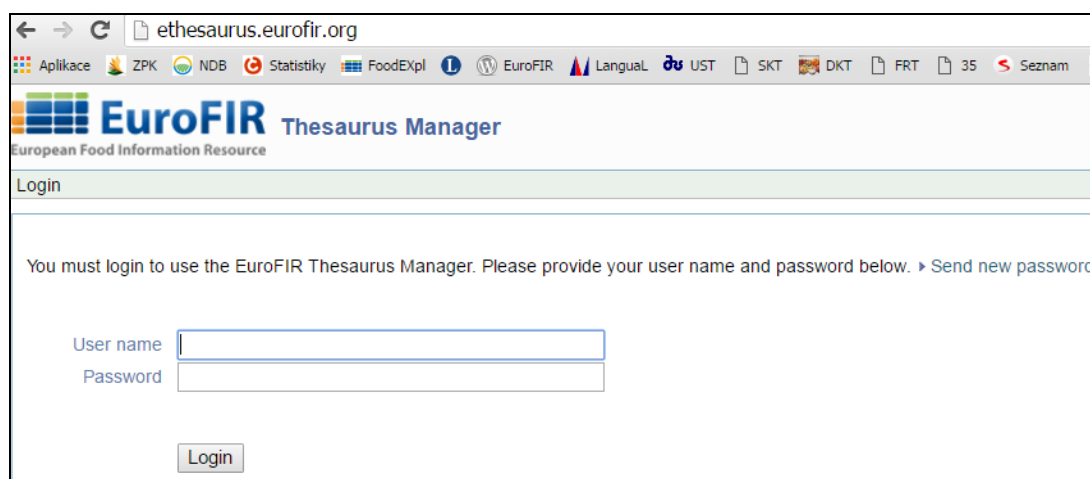
**Figure 10:** Method Indicator Thesaurus, analytical method, air drying

Figure 10 shows the information for an analytical method, “air drying”. Here the *Additional Information* field contains unstructured text as well as subfields. One of these, Eurofoods MEcode, provides one or more of the earlier Eurofoods codes corresponding to the method. The Component subfield notes the components for which the analytical method is applicable. Multiple codes can appear in either of the subfields and, when this occurs, the codes are separated by a semicolon (and no space).

At present, there are various types of term relating to analytical methods. These include terms describing an overall analytical method, sometimes identified as named methods such as the “Southgate method”, and others specify individual key steps of an analytical procedure. Further development of the guidelines for the method documentation of compositional values is needed. This could result in additional requirements for the handling of Method Indicator terms, for example the flagging of terms as relating to an overall method or to an individual key step.

## Access to EuroFIR thesauri on the **eThesaurus Manager tool:** **A View mode for Guest users**

Current and archive versions of EuroFIR thesauri are available for public viewing in the eThesaurus Manager tool that is available on the EuroFIR server (Figure 1) at:  
<http://ethesaurus.eurofir.org/> (username: eThesaurusGuest, password: guest\$Welcome).



**Figure 1:** Login screen of a EuroFIR Thesaurus Manager

The eThesaurus Manager facility is primarily a curator tool for maintaining and update of EuroFIR Thesauri but it provides also public access to Guest users within a View mode.

The View mode enables read-only viewing of individual records of thesauri terms and access to export reports published thesauri. The reports are displayed in four different report formats.

### Thesaurus Selection screen in a view mode

The Thesaurus Selection screen appears after logging on to the Thesaurus Manager tool as a Guest.




It allows the Guest user to select a thesaurus, *View* it or export in four *Report* formats. Figure 2 shows the Thesaurus selection screen for a Guest user.

Each thesaurus is identified by a thesaurus name, version number and a publication date.

The highest number of a version of an individual thesaurus indicates its current version.







The thesauri list includes the current and archival versions of the thesauri.




 <b>EuroFIR</b> Thesaurus Manager European Food Information Resource							
Select							
<h2>Welcome to the EuroFIR Thesaurus Manager</h2> <p>Select an action from the list below.</p>							
Action	Thesaurus	Version	Owner	Editor 1	Editor 2	Published	
  	EuroFIR Acquisition Type Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	
  	EuroFIR Acquisition Type Thesaurus	1.1	Macháčková Marie	Anders Møller		2011-09-08	
  	EuroFIR Component Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	
  	EuroFIR Component Thesaurus	1.1	Macháčková Marie	Anders Møller		2010-06-21	
  	EuroFIR Component Thesaurus	1.2	Macháčková Marie	Anders Møller		2011-08-17	
  	EuroFIR Component Thesaurus	1.3	Macháčková Marie	Anders Møller		2012-05-28	
  	EuroFIR Matrix Unit Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	
  	EuroFIR Matrix Unit Thesaurus	1.1	Macháčková Marie	Anders Møller		2011-09-08	
  	EuroFIR Matrix Unit Thesaurus	1.3	Macháčková Marie	Anders Møller		2011-09-10	
  	EuroFIR Method Indicator Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	
  	EuroFIR Method Indicator Thesaurus	1.1	Macháčková Marie	Anders Møller		2011-09-08	
  	EuroFIR Method Indicator Thesaurus	1.3	Macháčková Marie	Anders Møller		2011-09-10	
  	EuroFIR Method Type Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	
  	EuroFIR Method Type Thesaurus	1.1	Macháčková Marie	Anders Møller		2011-09-08	
  	EuroFIR Reference Type Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	
  	EuroFIR Reference Type Thesaurus	1.1	Macháčková Marie	Anders Møller		2011-09-08	
  	EuroFIR Unit Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	
  	EuroFIR Unit Thesaurus	1.1	Macháčková Marie	Anders Møller		2011-09-08	
  	EuroFIR Value Type Thesaurus	1.0	Macháčková Marie	Anders Møller		2008-08-16	
  	EuroFIR Value Type Thesaurus	1.1	Macháčková Marie	Anders Møller		2011-09-08	

**Figure 2:** Thesaurus selection screen in a View mode for Guest users

The screen has the following eight columns

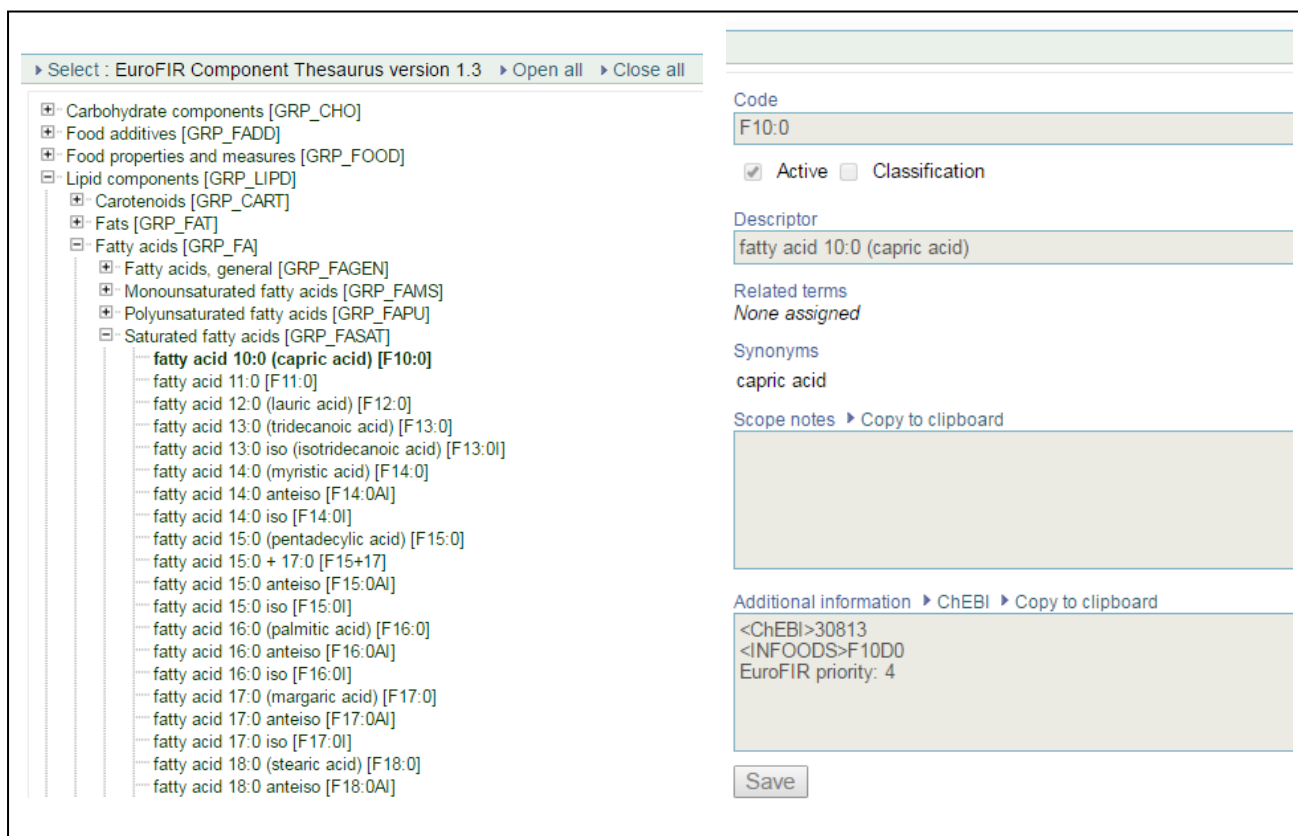
Action	<p>For selection of an action performed with the thesaurus.</p> <table border="1"> <tr> <td></td><td>View the selected thesaurus: A read-only access to records of thesauri terms.</td></tr> <tr> <td></td><td>Report generation for the selected thesaurus.</td></tr> </table> <p>The Guest user can only view the selected thesaurus or export it in various formats.</p>		View the selected thesaurus: A read-only access to records of thesauri terms.		Report generation for the selected thesaurus.
	View the selected thesaurus: A read-only access to records of thesauri terms.				
	Report generation for the selected thesaurus.				
Green marks	Green mark indicates that the thesaurus has been already published and is available publicly in a View mode for Guest users.				
Thesaurus	Thesaurus name				
Version	Number of version of the Thesaurus. The current version has the highest number.				
Owner	Name of the main editor of a thesaurus				
Editor 1	Name of a co-editor of a thesaurus designated by the Owner				
Editor 2	Name of a co-editor of a thesaurus designated by the Owner				
Published	The date of publishing of a thesaurus				

## Viewing the term record

The selected thesaurus can be opened for viewing by clicking on the  option in the Selection screen.

A screen for viewing thesaurus terms consists of two parts: The left hand window lists all the terms. The right-hand displays information about the selected term in a read-only access.

It is possible to return to the list of thesauri by clicking on the *Select* option at the top left of the display.



The screenshot displays the 'Component Thesaurus version 1.3' interface. On the left, a hierarchical tree lists various food components, with 'fatty acid 10:0 (capric acid) [F10:0]' selected and highlighted in bold. The right-hand panel provides detailed information for this selected term, including its code (F10:0), active status, descriptor ('fatty acid 10:0 (capric acid)'), related terms (none assigned), and synonyms (capric acid). It also includes a 'Scope notes' section with a 'Copy to clipboard' link and an 'Additional information' section showing ChEBI and INFOODS codes, and EuroFIR priority. A 'Save' button is located at the bottom right of the right-hand panel.

**Figure 14:** Component Thesaurus version 1.3, a screen for viewing a thesaurus term in a View mode for Guest user

The Guest can view simple or the hierarchical listing of a terms depending on a selected thesaurus.

The hierarchical listing can be expanded and collapsed using conventional Windows *Plus* and *Minus* icons. The whole structure of terms can be expanded by an *Open all* option in the list heading. This allows search for a descriptor or code with Ctrl-F. The *Close all* option in the heading allows the total tree to be collapsed to show only the top level terms.

A selected term in the term list is highlighted in bold.

Information about a selected term is available in a read-only access of the right hand editing form.


The structure of the editing form is unified for all of the thesauri. Its content depends on the selected thesaurus. The editing form comprises the following parts:

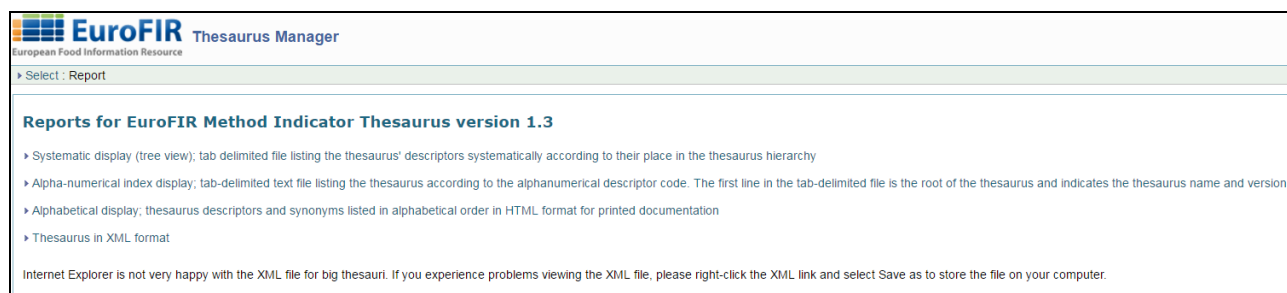
Code	A unique code of a term
Active check box	Indication of deprecated (unchecked) box
Classification check box	Indication of a term used for classification purposes only (checked box)
Descriptor	A unique name of a term, corresponding to the unique code of a term
Related terms	Word or phrase that means nearly the same as the term
Synonyms	Word or phrase that mean exactly the same as the term
Scope note	Indication of a meaning of the term
Additional information	Further definitions, links to authoritative sources

*Scope note* and *Additional information* can be copied using an option *Copy to clipboard*.

## Export formats for reports

All category of users can export the thesauri into the following four formats of reports.

The reports are accessible from the Selection screen (Figure 12) by clicking on the  option of the selected thesaurus (Figure 15).



**Figure 15:** A list of report formats available for a selected thesaurus – Method Thesaurus version 1.3

## Systematic display (tree view)

The tree structure of the thesaurus (descriptor and code) is displayed systematically according to their place in the thesaurus hierarchy. Figure 16 shows a part of a tree view of a Component Thesaurus, version 1.3.

```
Carbohydrate components [GRP_CHO]
  carbohydrate [CHO]
  carbohydrate, total [CHOT]
  carbohydrates, unspecified [CHOU]
  Fibre [GRP_FIB]
    fibre, crude [FIBC]
    fibre, total dietary [FIBT]
    fibre, water-insoluble [FIBINS]
    fibre, water-soluble [FIBSOL]
  Oligosaccharides [GRP_OLIGO]
    alpha galactosides [GALSD]
    dextrins [DEXTN]
    maltotriose [MALTRS]
    oligosaccharides, available [OLSAC]
    raffinose [RAFS]
    stachyose [STAS]
  Polysaccharide analogues [GRP_PSAN]
    chitin [CHITIN]
  Polysaccharides [GRP_PSAC]
    non-starch polysaccharides [NSP]
      beta glucans [GLUCNB]
      cellulose [CELLU]
      hemicellulose [HEMCEL]
      inulin [INULN]
      lignin [LIGN]
      pectin [PECT]
      polysaccharides, non-cellulosic [PSACNC]
        polysaccharides, non-cellulosic, water-insoluble [PSACNCI]
        polysaccharides, non-cellulosic, water-soluble [PSACNCs]
      polyuronic acids [PURAC]
    Starch [GRP_STAR]
      amylopectin [AMYP]
      amylose [AMYS]
      dextrins [DEXTN]
      glycogen [GLYC]
      polydextrose [POLYDEXS]
```

**Figure 16:** A part of a tree view of a Component Thesaurus, version 1.3.

## Alpha-numerical index display

A tab-delimited text file listing the thesaurus terms according to the alphanumerical descriptor code (code, descriptor, scope note, additional information)

The first line in the tab-delimited file is the root of the thesaurus and indicates the thesaurus name and version.

Figure 17 shows a part of report of a tab-delimited text file of a Component Thesaurus, version 1.3 with indication of one term and a corresponding editing window to this term.

```
000000 EuroFIR Component Thesaurus This term is for CLASSIFICATION ONLY; DO NOT USE
term to identify a specific component. Use a more precise narrower term. 1.3
AAA amino acids, total aromatic <INFOODS>AAA<BR>EuroFIR priority: 9
AAE- amino acids, total essential; unknown which aa are included
<INFOODS>AAE-<BR>EuroFIR priority: 9
AAE10B amino acids, total essential; eight essential amino acids + CYS and TYR
<INFOODS>AAE10B<br>EuroFIR priority: 9
AAE8 amino acids, total essential; eight essential amino acids Use for the total of
the eight basic essential amino acids, namely isoleucine, leucine, lysine, methionine,
phenylalanine, threonine, tryptophan and valine<br> <INFOODS>AAE8
AAS amino acids, total sulphur-containing <INFOODS>AAS<BR>EuroFIR priority: 9
AAT- amino acids, total; precise definition not specified <INFOODS>AAT-
<BR>EuroFIR priority: 9
ACEAC acetic acid <ChEBI>15366<br><INFOODS>ACEAC<br>EuroFIR priority: 4
ACESK acesulfam-K <INFOODS>ACESK<BR>Non-nutritive sweetener<BR>EuroFIR
priority: 7
ACONAC aconitic acid Use for prop-1-ene-1,2,3-tricarboxylic acid <ChEBI>22211<br>
<Notes>May occur as cis-aconitic acid (ChEBI:32805) and trans-aconitic acid (ChEBI:32806)
ADEN adenine Use for 6-aminopurine <ChEBI>16708<br><INFOODS>ADEN<br><eBASIS>1320
ADIAC adipic acid Use for 1,6-hexanedioic acid <ChEBI>30832
AG silver Use for total silver <ChEBI>30512<br><INFOODS>AG
AL aluminium Use for total aluminium <ChEBI>28984<BR><INFOODS>AL<BR>EuroFIR
priority: 9
```

Code
ACONAC
<input checked="" type="checkbox"/> Active <input type="checkbox"/> Classification
Descriptor
aconitic acid
Related terms
None assigned
Synonyms
achilleic acid
citridinic acid
equisetic acid
Scope notes ▶ Copy to clipboard
Use for prop-1-ene-1,2,3-tricarboxylic acid
Additional information ▶ ChEBI ▶ Copy to clipboard
<ChEBI>22211
<Notes>May occur as cis-aconitic acid (ChEBI:32805) and trans-aconitic acid (ChEBI:32806)

**Figure 17:** A part of report in a tab-delimited text file of a Component Thesaurus, version 1.3 with indication of one term and the corresponding editing window of this term.

## Alphabetical display

Thesaurus descriptors and synonyms are listed in alphabetical order in HTML format for printed documentation (descriptor, code, broader term, scope note, additional information) including synonyms (non-descriptors) and related terms). An example of this report is given in Figure 18 with indication of one term and a corresponding editing window for this term.

<b>glucose</b> FTC: GLUS BT: Monosaccharides [GRP_MNSAC] SN: Use for D-Glucose only; includes only the free monosaccharide UF: dextrose AI: 17634 GLUS EuroFIR priority: 2
<b>glutamic acid</b> FTC: GLU BT: Amino acids [GRP_AA] SN: Use only for L-glutamic acid AI: 16015 GLU EuroFIR priority: 5
<b>glutamine</b> FTC: GLN BT: Amino acids [GRP_AA] SN: Use only for L-glutamine AI: 18050 GLN EuroFIR priority: 5

Code
GLUS
<input checked="" type="checkbox"/> Active <input type="checkbox"/> Classification
Descriptor
glucose
Related terms
None assigned
Synonyms
dextrose
Scope notes <a href="#">Copy to clipboard</a>
Use for D-Glucose only; includes only the free monosaccharide
Additional information <a href="#">ChEBI</a> <a href="#">Copy to clipboard</a>
<ChEBI>17634 <INFOODS>GLUS EuroFIR priority: 2

**Figure 18:** A part of report in a tab-delimited text file of a Component Thesaurus, version 1.3 with indication of one term and the corresponding editing window of this term.

## Thesaurus in XML format

The display is designed for use in IT applications. This format provides the most extended report of selected thesaurus. Identification of a thesaurus is given in the header part (name of a thesaurus, version, and publishing date). Thesaurus descriptors are listed in alphabetical order. The descriptor part includes also information about date of creation of the term and date of its update. Editor's comments are also exported in this report format. An example of this report is given in Figure 17 with indication of one term and a corresponding editing window for this term.

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<?xml version="1.0" encoding="UTF-8" standalone="no" />
<EUROFIRSCHEME>
  <HEADER>
    <EXPORTDATE>2016-03-16</EXPORTDATE>
    <PUBLISHED>Published 2012-05-28</PUBLISHED>
    <TITLE>EuroFIR Component Thesaurus version 1.3</TITLE>
  </HEADER>
  <DEFINITION>
    EuroFIR Component Thesaurus version 1.3 Thesaurus Export File
  </DEFINITION>
  <URI>
    http://www.eurofir.org/xml/scheme/EuroFIR_Component_Thesaurus1.3.xml
  </URI>
  <NOTE>
    This is the official XML export file for EuroFIR Component Thesaurus version 1.3
  </NOTE>
  <DESCRIPTORS>
    <DESCRIPTOR>
      <FTC>FOLH2FM10</FTC>
      <TERM>10-formyldihydrofolate</TERM>
      <BT>Folate components [GRP_FOL]</BT>
      <SN>Use for 10-formyl-7,8-dihydrofolic acid</SN>
      <AI><ChEBI>15634</AI>
      <CLASSIFICATION>False</CLASSIFICATION>
      <ACTIVE>True</ACTIVE>
      <DATEUPDATED>2010-05-25</DATEUPDATED>
      <DATECREATED>2010-05-25</DATECREATED>
      <UPDATECOMMENT>Copied from termId 8241</UPDATECOMMENT>
      <SINGLE>1</SINGLE>
    </DESCRIPTOR>
    <DESCRIPTOR>
      <FTC>FOLFM10</FTC>
      <TERM>10-formylfolic acid</TERM>
      <BT>Folate components [GRP_FOL]</BT>
      <SN>Use for 10-formylfolic acid</SN>
      <CLASSIFICATION>False</CLASSIFICATION>
      <ACTIVE>True</ACTIVE>
      <DATEUPDATED>2010-05-25</DATEUPDATED>
      <DATECREATED>2010-05-25</DATECREATED>
      <UPDATECOMMENT>Copied from termId 8243</UPDATECOMMENT>
      <SINGLE>1</SINGLE>
    </DESCRIPTOR>
  </DESCRIPTORS>
</EUROFIRSCHEME>
```

Code  
FOLH2FM10

☒ Active ☐ Classification

Descriptor  
10-formyldihydrofolate

Related terms  
None assigned

Synonyms  
None defined

Scope notes [Copy to clipboard](#)  
Use for 10-formyl-7,8-dihydrofolic acid

Additional information [ChEBI](#) [Copy to clipboard](#)  
<ChEBI>15634

**Figure 19:** A part of report in a XML format of a Component Thesaurus, version 1.3 with indication of one term and the corresponding editing window of this term.