GREAT-ER

IUCLID interface

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Version 1.1
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0 Information on the Document

0.1 Project Survey

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0.2 Version Management

Version Number	Person Responsible Date	Chapter	Description
1.0	Ro, 04.04.2003	All	new
1.1	Fe, 07.10.2003	Heading	Removed version II from GREAT-ER in headings, headlines and footing lines

0.3 Document Cross References

Reference	Title	Document-ID	Version	Date
1				

0.4 Table of Contents

1 Introduction

The IUCLID interface is available for the GREAT-ER software (Version 2.0). With the interface it is possible to transfer substance data from the IUCLID database into the GREAT-ER database.

A database on 'Existing Chemicals' is being compiled by the European Chemicals Bureau (ECB). The database includes all those data sets submitted by the industry following Council Regulation (EEC) 793/93 on the 'Evaluation and Control of the Risks of Existing Substances'. The regulation obliges the industry to submit all readily available data on 'High Production Volume Chemicals' (HPVCs).

'Existing Chemicals' are those substances which were deemed to be on the European Market before September 18, 1981 and are listed in the EINECS inventory (European Inventory of Existing Commercial chemical Substances). EINECS contains 100,106 substances.

During the past years thousands of data sets and end points have been entered into the IUCLID database and are published and exchanged all over the world. A lot of people have recognised the valuable data in the IUCLID database but they have problems to search for and analyse the data easily.

The IUCLID to GREAT-ER interface provides an easy and efficient method of transferring relevant data from IUCLID to GREAT-ER. This means that the data for many more substances will be available in GREAT-ER to perform the simulations.

The data transfer from GREAT-ER back to IUCLID is not yet supported.

2 Requirements

The following requirements have to be fulfilled in order to run the interface:

A correct installation of the IUCLID software version 4.0.0, 4.0.1, 4.0.2 or 4.0.3 (order no. IUC-E-001, IUC-S-001, IUC-S-002, IUC-S-003, or IUC-M-002).

A correct installation of the GREAT-ER software version 2.0.0

The ORACLE database objects of IUCLID and GREAT-ER have to be installed in the same ORACLE database (same server, same instance, same database name, but different schemas).

The client software of IUCLID and GREAT-ER can be installed on different computers. The interface application (user interface) has to be installed and operated on the same computer as the IUCLID client software.

Some MS Windows knowledge is required for the installation (copying files, creating shortcuts, selecting folders, using the explorer).

3 Installation

The interface has to be installed manually according to your IT environment.

The samples in the guideline assume that

- your CD drive is mapped to d:
- your IUCLID software is installed in the folder c:\iuclid40

3.1 Installation of the GREAT-ER database objects

Start your IUCLID client PC.

Start the tool ORACLE SQL+

i.e. IUCLID 4.0.0 - 4.0.1: plus33w.exe

i.e. IUCLID 4.0.2 - 4.0.3: sqlplusw.exe

Enter the user name, password and database name of the GREAT-ER administrator (e.g. GREATER200).

Run the script “1_run_as_greater.sql” from the folder “IUCLID-Interface” of your GREAT-ER installation CD. As 1st parameter you have to enter the name of the IUCLID administrator (ORACLE user name, e.g. “iuc4”).

Sample:

```
@d:\IUCLID-Interface\1_run_as_greater.sql iuc4
```

Note: Check the file “1_run_as_greater.log” for possible errors.

3.2 Installation of the IUCLID database objects

Start your IUCLID client PC.

Start the tool ORACLE SQL+

i.e. IUCLID 4.0.0 - 4.0.1: plus33w.exe

i.e. IUCLID 4.0.2 - 4.0.3: sqlplusw.exe

Enter the user name, password and database name of the IUCLID administrator (e.g. IUC4).

Run the script “2_run_as_iuclid.sql” from the folder “IUCLID-Interface” of your GREAT-ER installation CD. As 1st parameter you have to enter the name of the GREAT-ER administrator (ORACLE user name, e.g. “greater200”).

Sample:

```
@d:\IUCLID-Interface\2_run_as_iuclid.sql greater200
```

Note: Check the file “2_run_as_iuclid.log” for possible errors.

3.3 Installation of the control panel

Start your IUCLID client PC.

Copy the file “IUC_GREATER_TRANSFER.fmx” from your GREAT-ER installation CD into the folder forms from your IUCLID installation.

Note: The file “IUC_GREATER_TRANSFER.fmx” depends on your operation system and your IUCLID version. To verify your IUCLID version, start IUCLID and activate the menu item Help>About. The exact IUCLID version is displayed in this screen.

If you use IUCLID version 4.0.2 or 4.0.3 you will always have to select the file from the folder “IUCLID-Interface\Forms6i”

Sample:

```
Copy d:\IUCLID-Interface\Forms6i\IUC_GREATER_TRANSFER.fmx
C:\IUCLID40\FORMS\IUC_GREATER_TRANSFER.fmx
```

If you use IUCLID version 4.0.0 or 4.0.1 on MS Windows 95, 98 or ME then you have to select the file from the folder “IUCLID-Interface\Forms45_9x”.

Sample:

```
Copy d:\IUCLID-Interface\Forms45_9x\IUC_GREATER_TRANSFER.fmx
C:\IUCLID40\FORMS\IUC_GREATER_TRANSFER.fmx
```

If you use IUCLID version 4.0.0 or 4.0.1 on MS Windows NT, 2000 or XP then you have to select the file from the folder “IUCLID-Interface\Forms45_NT”

Sample:

```
Copy d:\IUCLID-Interface\Forms45_NT\IUC_GREATER_TRANSFER.fmx
c:\IUCLID40\FORMS\IUC_GREATER_TRANSFER.fmx
```

3.4 Creating a shortcut to start the interface

The last step of the installation is to create a shortcut to activate the interface control panel.

Start your IUCLID client PC.

You will find predefined shortcuts on your GREAT-ER installation CD (please take care of your IUCLID version):

Copy the correct shortcuts (drag & drop with your explorer, or cut & paste) from the corresponding folder of your CD drive to your computer. You can paste the shortcut onto your desktop or you can insert the shortcut into the folder IUCLID of your start menu.

If you use IUCLID version 4.0.0 or 4.0.1 then select the following shortcut:

d:\IUCLID-Interface\Forms45_9x\IUCLID_Greater_Interface or

d:\IUCLID-Interface\Forms45_NT\IUCLID_Greater_Interface

If you use IUCLID version 4.0.2 or 4.0.3 then select the following shortcut:

d:\IUCLID-Interface\Forms6i\IUCLID_Greater_Interface

If your IUCLID software is not installed under C:\IUCLID40\FORMS or your ORACLE client software is not installed under C:\IUCLID40\BIN you will have to modify the shortcuts. You can edit the properties with a right mouse click on the newly created/inserted shortcut. Change the predefined folders of the shortcut.

Now you can click on the shortcut to verify that it works.

4 Carrying out the data transfer

It is possible to enter multiple records for the same property in IUCLID. This means that you often find a selection of test results according to different test conditions or test methods.

However GREAT-ER always requires a single, unique value for each property in order to perform the calculation. In addition the units are always fix in GREAT-ER and the user often has the possibility to select the unit from a predefined list of various units in IUCLID.

This means that some restrictions and compromises have to be defined for the data exchange:

- not all predefined properties/chapters are transferred
- if multiple records are available for a property in IUCLID, the user has to mark the preferred record with the flag “GREAT-ER”. This has to be performed with the default IUCLID application.
- if no records are marked with the “GREAT-ER” flag, the interface will transfer the first record.
- if multiple records are marked with the “GREAT-ER” flag, the interface will transfer the first marked record.
- if a value could not be directly transferred from IUCLID to GREAT-ER (i.e. usage of different units) the value will be inserted as a comment for the corresponding GREAT-ER property. Thus it will be quite easy for the GREAT-ER expert to transfer the values from the comments manually into the value fields.

4.1 Select entries

Before you transfer the data from a IUCLID data set it is recommended to mark the subchapter entries in IUCLID for the data transfer.

- start IUCLID
- select the data set(s)
- insert the “GREAT-ER“ flag for each record that is to be transferred to GREAT-ER

Note:

Please take care to mark only one entry in each IUCLID chapter with the “GREAT-ER” flag.

If a IUCLID data set was created by another company/authority/organisation, it can be write protected. You have to create your own data set, copy the data into your own data set and insert the GREAT-ER flags into this new data set.

Tip:

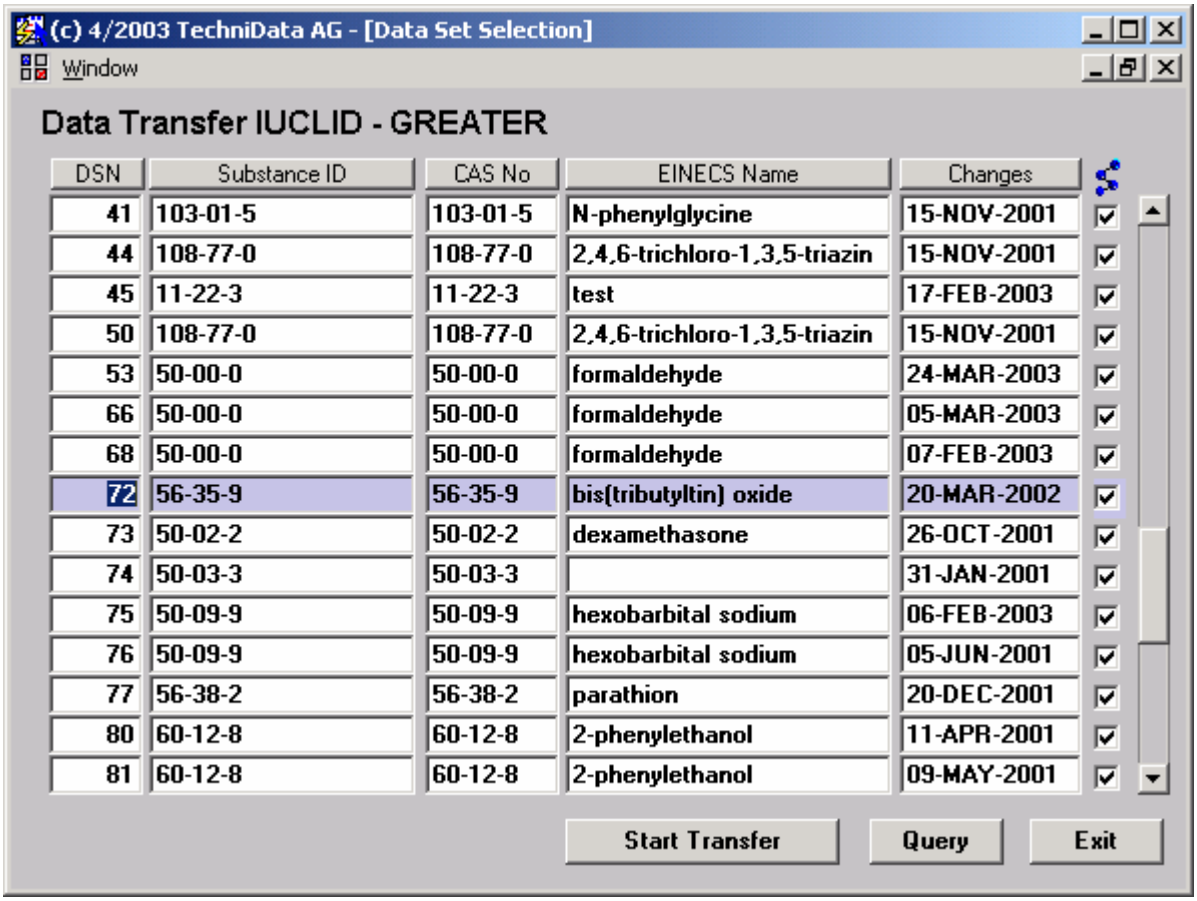
You can create a chapter view in IUCLID that covers only the data section which is relevant for GREAT-ER. This makes the setting of the flag more efficient. E.g. activate the menu item File>Profile Editor>Views and set up the “User2” view for the use of GREAT-ER.

4.2 Transfer data

When you have set up the “GREAT-ER” flags in your IUCLID system you can activate the control panel via the shortcut.

You have to connect to the ORACLE database as the IUCLID administrator (e.g. username=iuc4; password=iuc4; no database name).

After the successful login a list with all IUCLID data sets is displayed. You can scroll through the list or you can query for a specific data set by using the button “Query”.



Whenever you have selected a row (i.e. a IUCLID data set) you can press the button “Start Transfer”. A new substance will be created in the GREAT-ER database for the selected data set. The interface will always creates a new substance. No data will be overwritten in GREAT-ER.

Before you can use the new substance in GREAT-ER it is recommend to verify the transferred data via the GREAT-ER user interface.

5 Data field mapping

The data transfer contains data of the following IUCLID sections:

Data Set Administration
1.2 Synonyms and Tradenames
1.6.1 Labelling
1.8.3 Water Pollution
2.4 Vapour Pressure
2.5 Partition Coefficient
2.6.1 Solubility in Different Media
2.12 Dissociation Constant
3.1.1 Photodegradation
3.1.2 Stability in Water
3.5 Biodegradation
4.1 Acute/Prolonged Toxicity to Fish
4.2 Acute Tox. to Aquatic Invertebrates
4.3 Toxicity to Aquatic Plants e.g. Algae
4.4 Toxicity to Microorganisms e.g. Bacteria
4.5.1 Chronic Toxicity to Fish
4.5.2 Chronic Tox. to Aquatic Invertebrates

5.1 Default GREAT-ER properties

5.1.1 Identification

GROUP_ID: IDENTIFICATION

FIELD_ID: NAME
CASNO
EINECSNO
SYNONYM

5.1.1.1 Property: NAME

	GREAT-ER
Label	Name
Unit	-
Remark	Common name of the substance
Type	Char

	IUCLID
Table	SUBST_IDENT_TAB
Field	ID_VALUE
Condition	ID_CATEGORY = 'Y27-006' (EINECS Name)
Remark	DS_ADMIN_VIEW If the EINECS Name is missing, then the SUBST_ID will be used.

5.1.1.2 Property: CASNO

	GREAT-ER
Label	CAS
Unit	-
Remark	Chemical Abstract Service Number
Type	Char

	IUCLID
Table	SUBST_IDENT_TAB
Field	ID_VALUE
Condition	ID_CATEGORY = 'Y27-001' (CAS No.)
Remark	DS_ADMIN_VIEW

5.1.1.3 Property: EINECSNO

	GREAT-ER
Label	EINECS
Unit	DS_ADMIN_VIEW
Remark	European Inventory of Existing Commercial Chemical Substance Numbers
Type	Char

	IUCLID
Table	SUBST_IDENT_TAB
Field	ID_VALUE
Condition	ID_CATEGORY = 'Y027-002' (EC No.)
Remark	DS_ADMIN_VIEW

5.1.1.4 Property: SYNONYM

	GREAT-ER
Label	Synonyms
Unit	-
Remark	-

Type	Char

	IUCLID
Table	GI_SYNONYM_TAB
Field	SYN
Condition	-
Remark	Multiple data --> Synonyms will be concatenated, Separator ';' Length 255

5.1.2 Physio-chemical Properties

GROUP_ID: PHYSIOCHEMICAL

FIELD_ID: MM
PKA
PROTOLYSIS
K_OW
WS
VP

5.1.2.1 Property: MM

	GREAT-ER
Label	Molar Mass
Unit	g/mol
Remark	Molar mass.
Type	FLOAT

	IUCLID
Table	GI_SUBSTANCE_TAB
Field	MOLECULAR_W
Condition	Information only in GREAT-ER 'REMARK' field
Remark	No unit

5.1.2.2 Property: PKA

	GREAT-ER
Label	pKa
Unit	-
Remark	acid/base dissociation constant
Type	FLOAT

	IUCLID

Table	PC_WATER_SOL_TAB
Field	PKA_VALUE
Condition	SOLUBILITY_MEDIA = 'C14-001' (water) Only 1 record displayed with multiple data.

5.1.2.3 Property: PROTOLYSIS

	GREAT-ER
Label	Dissociation
Unit	-
Remark	Acid or base factor
Type	P1 / Glossary (unknown, acid, neutral, base)

	IUCLID
Table	PC_DISSOCIATION_TAB
Field	ACID_BASE
Condition	Only 1 record displayed with multiple data.
Remark	Information only in GREAT-ER 'REMARK' field, as Greater field has LOV.
GREATER-Remark	*<PROTOLYSIS>*
IUCLID data for GREATER-Remark	*<PROTOLYSIS>:* ✍ PC_DISSOCIATION_TAB.ACID_BASE

5.1.2.4 Property: K_OW

	GREAT-ER
Label	Kow
Unit	-
Remark	Octanol/water partitioning coefficient.
Type	FLOAT

	IUCLID
Table	PC_PARTITION_TAB
Field	LOWER, UPPER
Condition	PART_COEFF = 'C15-001' (octanol-water) Only 1 record displayed with multiple data.
Remark	Additional Information in GREAT-ER 'REMARK' field. Normally the field 'LOWER' is displayed. If this field is empty the field 'UPPER' is displayed.
GREATER-Remark	*<KOW>*
IUCLID data for GREATER-Remark	*<KOW>:* ✍ PC_PARTITION_TAB.LOWER **..** PC_PARTITION_TAB.UPPER

5.1.2.5 Property: WS

	GREAT-ER
Label	Water solubility
Unit	mg/L
Remark	Octanol/water partitioning coefficient.
Type	FLOAT

	IUCLID
Table	PC_WATER_SOL_TAB
Field	LOWER, UPPER, UNIT
Condition	SOLUBILITY_MEDIA = 'C14-001' (water) Only 1 record displayed with multiple data.
Remark	Unit g/l, mg/l, vol% (LOV). Additional Information in GREAT-ER 'REMARK' field. Normally the field 'LOWER' is displayed. If this field is empty the field 'UPPER' is displayed. Flagged Data: First select data with GREATER-Flag and Unit 'mg/l'. If these data are not available, then obtain data with GREATER-Flag. Unflagged Data: First select data with Unit 'mg/l'. If these data are not available, then obtain data with other unit.
GREATER-Remark	<*WS*>
IUCLID data for GREATER-Remark	<*WS*>: ✍ PC_WATER_SOL_TAB.LOWER **..** PC_WATER_SOL_TAB.UPPER PC_WATER_SOL_TAB.UNIT (all records with multiple data, because in the 1st record only LOWER or UPPER is displayed)

5.1.2.6 Property: VP

	GREAT-ER
Label	Vapor pressure
Unit	Pa
Remark	-
Type	FLOAT

	IUCLID
Table	PC_VAPOUR_TAB
Field	LOWER, UPPER, TEMP
Condition	Only 1 record displayed with multiple data.
Remark	Unit hPa (LOV). Convert data from hPa into Pa. Additional Information in GREAT-ER 'REMARK' field.

	Normally the field 'LOWER' is displayed. If this field is empty the field 'UPPER' is displayed.
GREATER-Remark	*<VP>*
IUCLID data for GREATER-Remark	*<VP>:* ✍ PC_VAPOUR_TAB.LOWER **..** PC_WATER_SOL_TAB.UPPER **at** PC_WATER_SOL_TAB.UPPER **°C**

5.1.3 Partitioning

GROUP_ID: PARTITIONING

FIELD_ID: KD_RIVER
KD_ML
KD_SEWAGE
H

5.1.3.1 Property: KD_RIVER

	GREAT-ER
Label	Kd River
Unit	L/kg[dwt]
Remark	solids/liquid partitioning coefficient in river
Type	FLOAT

	IUCLID
Remark	No IUCLID data

5.1.3.2 Property: KD_ML

	GREAT-ER
Label	Kd ML
Unit	L/kg[dwt]
Remark	solids/liquid partitioning coefficient in mixed liquor
Type	FLOAT

	IUCLID
Remark	No IUCLID data

5.1.3.3 Property: KD_SEWAGE

	GREAT-ER
Label	Kd Sewage
Unit	L/kg[dwt]
Remark	solids/liquid partitioning coefficient in sewage
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.3.4 Property: H

	GREAT-ER
Label	H
Unit	Pa*m³/mol
Remark	Dimensionless Henrys law constant
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.4 Bio-Degradation

GROUP_ID: BIO_DEGRADATION

FIELD_ID: USE_MONOD
A_ANOXIC
A_SORBED
K_MAX
Y
K_S
B
A_ANAEROBIC
K_DO
Q10
K_STD_BIODEG

5.1.4.1 Property: USE_MONOD

	GREAT-ER
Label	Use monod
Unit	-
Remark	Apply monod kinetics in WWTP ?
Type	P42

	IUCLID
Remark	No IUCLID data.

5.1.4.2 Property: A_ANOXIC

	GREAT-ER
Label	a_anoxic
Unit	-

Remark	anoxic biodegradation correction factor
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.4.3 Property: A_SORBED

	GREAT-ER
Label	a_sorbed
Unit	-
Remark	absorbed biodegradation correction factor
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.4.4 Property: K_MAX

	GREAT-ER
Label	k_max
Unit	1/h
Remark	Monod: max. biodegradation rate
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.4.5 Property: Y

	GREAT-ER
Label	Y
Unit	g(d.wt)/g(BOD)
Remark	Monod: biomass yield
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.4.6 Property: K_S

	GREAT-ER

Label	K_s
Unit	mg/L
Remark	Monod: affinity constant
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.4.7 Property: B

	GREAT-ER
Label	b
Unit	1/h
Remark	Monod: biomass decay rate
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.4.8 Property: A_ANAEROBIC

	GREAT-ER
Label	a_anaerobic
Unit	-
Remark	anaerobic biodegradation correction factor
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.4.9 Property: K_DO

	GREAT-ER
Label	K_DO
Unit	mg/L
Remark	affinity constant for aerobic/anaerobic
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.4.10 Property: Q10

	GREAT-ER
Label	Q10
Unit	mg/L
Remark	temperature correction for biodegradation
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.4.11 Property: K_STD_BIODEG

	GREAT-ER
Label	k_std_biodeg
Unit	L/(mg[dwt]*h)
Remark	standard double first-order aerobic biodegradation rate
Type	FLOAT

	IUCLID
Table	EN_BIODEGRADATION_TAB
Field	DEG_LOWER, DEG_UPPER, DEG_EXP_VALUE, DEG_EXP_UNIT
Condition	TESTTYPE = 'F25-01' (aerobic) Field 'UNIT' of Greater differs from the field 'UNIT' in IUCLID.
Remark	Information in GREAT-ER 'REMARK' field.
GREATER-Remark	*<K_STD_BIODEG>*
IUCLID data for GREATER-Remark	*<K_STD_BIODEG>:* ✍ PC_VAPOUR_TAB.DEG_LOWER **..** PC_WATER_SOL_TAB.DEG_UPPER **% after** PC_VAPOUR_TAB.DEG_EXP_VALUE PC_VAPOUR_TAB.DEG_EXP_UNIT

5.1.5 Sewage Treatment Removal

GROUP_ID: SEWAGE_TREATMENT_REMOVAL

FIELD_ID: A_AS
K_WWTP_NONBIO
R_SEWER
R_TRICKLING_FILTER
R_PRIMARY
R_ACTIVATED_SLUDGE

5.1.5.1 Property: A_AS

	GREAT-ER

Label	a_AS
Unit	1/h
Remark	Correction for biodegradation in activated sludge
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.5.2 Property: K_WWTP_NONBIO

	GREAT-ER
Label	k_WWTP_nonbio
Unit	1/h
Remark	Rate for non-biological degradation in WWTPs
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.5.3 Property: R_SEWER

	GREAT-ER
Label	R(sewer)
Unit	1/h
Remark	Chemical removal in sewers
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.5.4 Property: R_TRICKLING_FILTER

	GREAT-ER
Label	R(TF)
Unit	1/h
Remark	Chemical removal in trickling filter plant
Type	DISTRIB

	IUCLID
Remark	No IUCLID data.

5.1.5.5 Property: R_PRIMARY

	GREAT-ER
Label	R(primary)
Unit	1/h
Remark	Chemical removal in primary settler
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.5.6 Property: R_ACTIVATED_SLUDGE

	GREAT-ER
Label	R(AS)
Unit	1/h
Remark	Chemical removal in activated sludge plant
Type	DISTRIB

	IUCLID
Remark	No IUCLID data.

5.1.6 In-stream Removal

GROUP_ID: INSTREAM_REMOVAL

FIELD_ID: K_HYDR_N
K_PHOTO
K_HYDR_B
A_RIVER
K_VOL
K_DEG
K_SED
K_HYDR_A
K_INSTREAM

5.1.6.1 Property: K_HYDR_N

	GREAT-ER
Label	k (hydr,n)
Unit	1/h
Remark	default hydrolysis rate - neutral
Type	FLOAT

	IUCLID

Table	EN_STABILITY_IN_WATER_TAB
Field	THALF_PH7_LOWER, THALF_PH7_UPPER, THALF_PH7_UNIT
Condition	TESTTYPE = 'F08-01' (abiotic) Only 1 record displayed of multiple data.
Remark	Information **only** in GREAT-ER 'REMARK' field.
GREATER-Remark	Half-life (PH7): <*THALF_PH7*> Half-life (<*PHX*>): <*PHX*>
IUCLID data for GREATER-Remark	<*THALF_PH7*>: ✍ EN_STABILITY_IN_WATER_TAB.THALF_PH7_LOWER **..** EN_STABILITY_IN_WATER_TAB.THALF_PH7_UPPER EN_STABILITY_IN_WATER_TAB.THALF_PH7_UNIT <*PHX*>: ✍ EN_STABILITY_IN_WATER_TAB.THALF_PHX_PH EN_STABILITY_IN_WATER_TAB.THALF_PHX_LOWER **..** EN_STABILITY_IN_WATER_TAB.THALF_PHX_UPPER EN_STABILITY_IN_WATER_TAB.THALF_PHX_UNIT (if EN_STABILITY_IN_WATER_TAB.THALF_PHX = 7)

5.1.6.2 Property: K_PHOTO

	GREAT-ER
Label	k (photo)
Unit	1/h
Remark	photolysis rate - near surface
Type	FLOAT

	IUCLID
Table	EN_PHOTODEGRADATION_TAB
Field	HALFLIFE_UPPER, HALFLIFE_LOWER, HALFLIFE_UNIT, DEG_UPPER, DEG_LOWER, DEG_EXP_VALUE, DEG_EXP_UNIT
Condition	TESTTYPE = 'F01-04' (water) Only 1 record displayed of multiple data.
Remark	Information **only** in GREAT-ER 'REMARK' field.
GREATER-Remark	Half-life: <*HALF*> Degradation: <*DEGRADATION*>
IUCLID data for GREATER-Remark	< *HALF*>: ✍ EN_PHOTODEGRADATION_TAB.HALFLIFE_LOWER **..** EN_PHOTODEGRADATION_TAB.HALFLIFE_UPPER EN_PHOTODEGRADATION_TAB.HALFLIFE_UNIT < *DEGRADATION*>: ✍ EN_PHOTODEGRADATION_TAB.DEG_LOWER **..** EN_PHOTODEGRADATION_TAB.DEG_UPPER **% after** EN_PHOTODEGRADATION_TAB.DEG_EXP_VALUE EN_PHOTODEGRADATION_TAB.DEG_EXP_UNIT

5.1.6.3 Property: K_HYDR_B

	GREAT-ER
Label	k (hydr,b)
Unit	1/h
Remark	default hydrolysis rate - base
Type	FLOAT

	IUCLID
Table	EN_STABILITY_IN_WATER_TAB
Field	THALF_PH9_LOWER, THALF_PH9_UPPER, THALF_PH9_UNIT
Condition	TESTTYPE = 'F08-01' (abiotic) Only 1 record displayed of multiple data.
Remark	Information **only** in GREAT-ER 'REMARK' field.
GREATER-Remark	Half-life (PH9): *<THALF_PH9>* Half-life (*<PHX>*): *<PHX>*
IUCLID data for GREATER-Remark	*< THALF_PH9>:* ✍ EN_STABILITY_IN_WATER_TAB.THALF_PH9_LOWER **..** EN_STABILITY_IN_WATER_TAB.THALF_PH9_UPPER EN_STABILITY_IN_WATER_TAB.THALF_PH9_UNIT *<PHX>:* ✍ EN_STABILITY_IN_WATER_TAB.THALF_PHX_PH EN_STABILITY_IN_WATER_TAB.THALF_PHX_LOWER **..** EN_STABILITY_IN_WATER_TAB.THALF_PHX_UPPER EN_STABILITY_IN_WATER_TAB.THALF_PHX_UNIT (if EN_STABILITY_IN_WATER_TAB.THALF_PHX > 7)

5.1.6.4 Property: A_RIVER

	GREAT-ER
Label	a_river
Unit	-
Remark	correction factor for biodegradation in rivers
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.6.5 Property: K_VOL

	GREAT-ER
Label	k (vol)
Unit	1/h

Remark	default volatilization rate
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.6.6 Property: K_DEG

	GREAT-ER
Label	k (deg)
Unit	1/h
Remark	default degradation rate
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.6.7 Property: K_SED

	GREAT-ER
Label	k (sed)
Unit	1/h
Remark	default SS settling rate
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.6.8 Property: K_HYDR_A

	GREAT-ER
Label	k (hydr,a)
Unit	1/h
Remark	default hydrolysis rate - acid
Type	FLOAT

	IUCLID
Table	EN_STABILITY_IN_WATER_TAB
Field	THALF_PH4_LOWER, THALF_PH4_UPPER, THALF_PH4_UNIT
Condition	TESTTYPE = 'F08-01' (abiotic) Only 1 record displayed of multiple data.

Remark	Information **only** in GREAT-ER 'REMARK' field.
GREATER-Remark	Half-life (PH4): *<THALF_PH4>* Half-life (*<PHX>*): *<PHX>*
IUCLID data for GREATER-Remark	*< THALF_PH4>:* ✍ EN_STABILITY_IN_WATER_TAB.THALF_PH4_LOWER **..** EN_STABILITY_IN_WATER_TAB.THALF_PH4_UPPER EN_STABILITY_IN_WATER_TAB.THALF_PH4_UNIT *<PHX>:* ✍ EN_STABILITY_IN_WATER_TAB.THALF_PHX_PH EN_STABILITY_IN_WATER_TAB.THALF_PHX_LOWER **..** EN_STABILITY_IN_WATER_TAB.THALF_PHX_UPPER EN_STABILITY_IN_WATER_TAB.THALF_PHX_UNIT (if EN_STABILITY_IN_WATER_TAB.THALF_PHX < 7)

5.1.6.9 Property: K_INSTREAM

	GREAT-ER
Label	k (instream)
Unit	1/h
Remark	default in-stream removal rate
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.1.7 Market Data

GROUP_ID: MARKET

FIELD_ID: DEFAULT_CONSUMPTION

5.1.7.1 Property: DEFAULT_CONSUMPTION

	GREAT-ER
Label	Consumption
Unit	kg/(cap * a)
Remark	Default domestic product consumption
Type	FLOAT

	IUCLID
Remark	No IUCLID data.

5.2 Extended GREAT-ER properties

5.2.1 Labelling

GROUP_ID: CLASSLAB

FIELD_ID: R_PHRASE
S_PHRASE
SYMBOLS
NOTA

5.2.1.1 Property: R_PHRASE

	GREAT-ER
Label	R-Phrases
Unit	-
Remark	-
Type	CHAR

	IUCLID
Table	GI_LABELLING_TAB
Field	R_PHRASE
Condition	-
Remark	Multiple data --> R-Phrases will be concatenated, Separator ';' Length 255

5.2.1.2 Property: S_PHRASE

	GREAT-ER
Label	S-Phrases
Unit	-
Remark	-
Type	CHAR

	IUCLID
Table	GI_LABELLING_TAB
Field	S_PHRASE
Condition	-
Remark	Multiple data --> S-Phrases will be concatenated, Separator ';' Length 255

5.2.1.3 Property: SYMBOLS

	GREAT-ER
Label	Symbols
Unit	-
Remark	-
Type	CHAR

	IUCLID
Table	GI_LABELLING_TAB
Field	SYMBOL1, SYMBOL2, SYMBOL3, SYMBOL4
Condition	
Remark	Multiple data --> Symbols will be concatenated, Separator ';' Length 255
GREATER-Remark	Further symbols: <*SYMBOLS*> Data Source: IUCLID
IUCLID data for GREATER-Remark	<*SYMBOLS*>: ✍ GI_LABELLING_TAB.SYMBOL1**;** GI_LABELLING_TAB.SYMBOL2**;** GI_LABELLING_TAB.SYMBOL3**;** GI_LABELLING_TAB.SYMBOL4**;** (further records of multiple data)

5.2.1.4 Property: NOTA

	GREAT-ER
Label	Notas
Unit	-
Remark	-
Type	CHAR

	IUCLID
Table	GI_LABELLING_TAB
Field	NOTA1, NOTA2, NOTA3
Condition	-
Remark	Multiple data --> Notas will be concatenated, Separator ';' Length 255

5.2.2 Water Pollution

GROUP_ID: WATER_POLL

FIELD_ID: WGK

5.2.2.1 Property: WGK

	GREAT-ER
Label	Water Danger Class, WGK(DE)
Unit	-
Remark	-
Type	CHAR

	IUCLID
Table	GI_WATER_POLLUTION_TAB
Field	CLASS_OF_DANGER, CLASSIFICATION, LABELLING
Condition	Only 1 record displayed with multiple data.
Remark	Only the field 'CLASS_OF_DANGER' is displayed. Additional Information in GREAT-ER 'REMARK' field.
GREATER-Remark	<*WGK* >
IUCLID data for GREATER-Remark	<*WGK*>: ✍ Classified by: GI_WATER_POLLUTION_TAB.CLASSIFICATION Labelled by: GI_WATER_POLLUTION_TAB.LABELLING

5.2.3 Acute Toxicity to Fish

GROUP_ID: ACUTETOX_FISH

FIELD_ID: AF_SPECIES
AF_UNIT
AF_EXPOSURE_PERIOD
AF_NOEC
AF_LC0
AF_LC50
AF_LC100

5.2.3.1 Property: AF_SPECIES

	GREAT-ER
Label	Species
Unit	-
Remark	Name of the species
Type	CHAR

	IUCLID
Table	EC_FISHTOX_TAB
Field	SPECIES
Condition	Only 1 record displayed with multiple data.

5.2.3.2 Property: AF_UNIT

	GREAT-ER
Label	Unit
Unit	-
Remark	Unit
Type	CHAR

	IUCLID
Table	EC_FISHTOX_TAB
Field	UNIT
Condition	Only 1 record displayed with multiple data.

5.2.3.3 Property: AF_EXPOSURE_PERIOD

	GREAT-ER
Label	Exposure Period
Unit	-
Remark	Exposure Period
Type	CHAR

	IUCLID
Table	EC_FISHTOX_TAB
Field	EXP_VALUE, EXP_UNIT
Condition	Only 1 record displayed with multiple data.
Remark	Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_FISHTOX_TAB.EXP_VALUE EC_FISHTOX_TAB.EXP_UNIT

5.2.3.4 Property: AF_NOEC

	GREAT-ER
Label	NOEC
Unit	-
Remark	No observed effect concentration
Type	CHAR

	IUCLID
Table	EC_FISHTOX_TAB
Field	NOEC_LOWER, NOEC_UPPER, NOEC_MC
Condition	Only 1 record displayed with multiple data.

Remark	Normally the field 'NOEC_LOWER' is displayed. If this field is empty the field 'NOEC_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_FISHTOX_TAB.NOEC_LOWER **..** EC_FISHTOX_TAB.NOEC_UPPER **(**EC_FISHTOX_TAB.NOEC_MC**)**

5.2.3.5 Property: AF_LC0

	GREAT-ER
Label	LC0
Unit	-
Remark	Lethal Concentration (number refers to percentage of total effect 100%)
Type	CHAR

	IUCLID
Table	EC_FISHTOX_TAB
Field	LC0_LOWER, LC0_UPPER, LC0_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'LC0_LOWER' is displayed. If this field is empty the field 'LC0_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_FISHTOX_TAB.LC0_LOWER **..** EC_FISHTOX_TAB.LC0_UPPER **(**EC_FISHTOX_TAB.LC0_MC**)**

5.2.3.6 Property: AF_LC50

	GREAT-ER
Label	LC50
Unit	-
Remark	Lethal Concentration (number refers to percentage of total effect 100%)
Type	CHAR

	IUCLID
Table	EC_FISHTOX_TAB
Field	LC50_LOWER, LC50_UPPER, LC50_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'LC50_LOWER' is displayed. If this field is empty the field 'LC50_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_FISHTOX_TAB.LC50_LOWER **..** EC_FISHTOX_TAB.LC50_UPPER

	(EC_FISHTOX_TAB.LC50_MC**)**

5.2.3.7 Property: AF_LC100

	GREAT-ER
Label	LC100
Unit	-
Remark	Lethal Concentration (number refers to percentage of total effect 100%)
Type	CHAR

	IUCLID
Table	EC_FISHTOX_TAB
Field	LC100_LOWER, LC100_UPPER, LC100_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'LC100_LOWER' is displayed. If this field is empty the field 'LC100_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_FISHTOX_TAB.LC100_LOWER **..** EC_FISHTOX_TAB.LC100_UPPER **(**EC_FISHTOX_TAB.LC100_MC**)**

5.2.4 Acute Toxicity for Aquatic Invertebrates

GROUP_ID: ACUTETOX_A_INVERTEBRATES

FIELD_ID: AAI_SPECIES
AAI_UNIT
AAI_EXPOSURE_PERIOD
AAI_NOEC
AAI_EC0
AAI_EC50
AAI_EC100

5.2.4.1 Property: AAI_SPECIES

	GREAT-ER
Label	Species
Unit	-
Remark	Name of the species
Type	CHAR

	IUCLID
Table	EC_DAPHNIATOX_TAB
Field	SPECIES

Condition	Only 1 record displayed with multiple data.

5.2.4.2 Property: AAI_UNIT

	GREAT-ER
Label	Unit
Unit	-
Remark	Unit
Type	CHAR

	IUCLID
Table	EC_DAPHNIATOX_TAB
Field	UNIT
Condition	Only 1 record displayed with multiple data.

5.2.4.3 Property: AAI_EXPOSURE_PERIOD

	GREAT-ER
Label	Exposure Period
Unit	-
Remark	Exposure Period
Type	CHAR

	IUCLID
Table	EC_DAPHNIATOX_TAB
Field	EXP_VALUE, EXP_UNIT
Condition	Only 1 record displayed with multiple data.
Remark	Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_DAPHNIATOX_TAB.EXP_VALUE EC_DAPHNIATOX_TAB.EXP_UNIT

5.2.4.4 Property: AAI_NOEC

	GREAT-ER
Label	NOEC
Unit	-
Remark	No observed effect concentration
Type	CHAR

	IUCLID
Table	EC_DAPHNIATOX_TAB

Field	NOEC_LOWER, NOEC_UPPER, NOEC_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'NOEC_LOWER' is displayed. If this field is empty the field 'NOEC_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_DAPHNIATOX_TAB.NOEC_LOWER **..** EC_DAPHNIATOX_TAB.NOEC_UPPER **(**EC_DAPHNIATOX_TAB.NOEC_MC**)**

5.2.4.5 Property: AAI_EC0

	GREAT-ER
Label	EC0
Unit	-
Remark	Effect Concentration (number refers to percentage of total effect 100%)
Type	CHAR

	IUCLID
Table	EC_DAPHNIATOX_TAB
Field	EC0_LOWER, EC0_UPPER, EC0_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'EC0_LOWER' is displayed. If this field is empty the field 'EC0_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_DAPHNIATOX_TAB.EC0_LOWER **..** EC_DAPHNIATOX_TAB. EC0_UPPER **(**EC_DAPHNIATOX_TAB.EC0_MC**)**

5.2.4.6 Property: AAI_EC50

	GREAT-ER
Label	EC50
Unit	-
Remark	Effect Concentration (number refers to percentage of total effect 100%)
Type	CHAR

	IUCLID
Table	EC_DAPHNIATOX_TAB
Field	EC50_LOWER, EC50_UPPER, EC50_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'EC50_LOWER' is displayed. If this field is empty the field 'EC50_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in

	IUCLID display. EC_DAPHNIATOX_TAB.EC50_LOWER **..** EC_DAPHNIATOX_TAB. EC50_UPPER **(**EC_DAPHNIATOX_TAB.EC50_MC**)**

5.2.4.7 Property: AAI_EC100

	GREAT-ER
Label	EC100
Unit	-
Remark	Effect Concentration (number refers to percentage of total effect 100%)
Type	CHAR

	IUCLID
Table	EC_DAPHNIATOX_TAB
Field	EC100_LOWER, EC100_UPPER, EC100_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'EC100_LOWER' is displayed. If this field is empty the field 'EC100_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_DAPHNIATOX_TAB.EC100_LOWER **..** EC_DAPHNIATOX_TAB. EC100_UPPER **(**EC_DAPHNIATOX_TAB.EC100_MC**)**

5.2.5 Acute Toxicity for Aquatic Plants (e.g. Algae)

GROUP_ID: ACUTETOX_A_PLANTS

FIELD_ID: AAP_SPECIES
AAP_UNIT
AAP_EXPOSURE_PERIOD
AAP_NOEC
AAP_LOEC
AAP_EC0
AAP_EC10
AAP_EC50

5.2.5.1 Property: AAP_SPECIES

	GREAT-ER
Label	Species
Unit	-
Remark	Name of the species
Type	CHAR

	IUCLID
Table	EC_ALGAETOX_TAB

Field	SPECIES
Condition	Only 1 record displayed with multiple data.

5.2.5.2 Property: AAP_UNIT

	GREAT-ER
Label	Unit
Unit	-
Remark	Unit
Type	CHAR

	IUCLID
Table	EC_ALGAETOX_TAB
Field	UNIT
Condition	Only 1 record displayed with multiple data.

5.2.5.3 Property: AAP_EXPOSURE_PERIOD

	GREAT-ER
Label	Exposure Period
Unit	-
Remark	Exposure Period
Type	CHAR

	IUCLID
Table	EC_ALGAETOX_TAB
Field	EXP_VALUE, EXP_UNIT
Condition	Only 1 record displayed with multiple data.
Remark	Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_ALGAETOX_TAB.EXP_VALUE EC_ALGAETOX_TAB.EXP_UNIT

5.2.5.4 Property: AAP_NOEC

	GREAT-ER
Label	NOEC
Unit	-
Remark	No observed effect concentration
Type	CHAR

	IUCLID

Table	EC_ALGAETOX_TAB
Field	NOEC_LOWER, NOEC_UPPER, NOEC_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'NOEC_LOWER' is displayed. If this field is empty the field 'NOEC_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_ALGAETOX_TAB.NOEC_LOWER **..** EC_ALGAETOX_TAB. NOEC_UPPER **(**EC_ALGAETOX_TAB.NOEC_MC**)**

5.2.5.5 Property: AAP_LOEC

	GREAT-ER
Label	LOEC
Unit	-
Remark	Lowest observed effect concentrations
Type	CHAR

	IUCLID
Table	EC_ALGAETOX_TAB
Field	LOEC_LOWER, LOEC_UPPER, LOEC_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'LOEC_LOWER' is displayed. If this field is empty the field 'LOEC_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_ALGAETOX_TAB.LOEC_LOWER **..** EC_ALGAETOX_TAB. LOEC_UPPER **(**EC_ALGAETOX_TAB.LOEC_MC**)**

5.2.5.6 Property: AAP_EC0

	GREAT-ER
Label	EC0
Unit	-
Remark	Effect Concentration (number refers to percentage of total effect 100%)
Type	CHAR

	IUCLID
Table	EC_ALGAETOX_TAB
Field	EC0_LOWER, EC0_UPPER, EC0_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'EC0_LOWER' is displayed. If this field is empty the field 'EC0_UPPER' is displayed.

	Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_ALGAETOX_TAB.EC0_LOWER **..** EC_ALGAETOX_TAB. EC0_UPPER **(**EC_ALGAETOX_TAB.EC0_MC**)**

5.2.5.7 Property: AAP_EC10

	GREAT-ER
Label	EC10
Unit	-
Remark	Effect Concentration (number refers to percentage of total effect 100%)
Type	CHAR

	IUCLID
Table	EC_ALGAETOX_TAB
Field	EC50_LOWER, EC10_UPPER, EC10_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'EC10_LOWER' is displayed. If this field is empty the field 'EC10_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_ALGAETOX_TAB.EC10_LOWER **..** EC_ALGAETOX_TAB. EC10_UPPER **(**EC_ALGAETOX_TAB.EC10_MC**)**

5.2.5.8 Property: AAP_EC50

	GREAT-ER
Label	EC50
Unit	-
Remark	Effect Concentration (number refers to percentage of total effect 100%)
Type	CHAR

	IUCLID
Table	EC_ALGAETOX_TAB
Field	EC50_LOWER, EC50_UPPER, EC50_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'EC50_LOWER' is displayed. If this field is empty the field 'EC50_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_ALGAETOX_TAB.EC50_LOWER **..** EC_ALGAETOX_TAB. EC50_UPPER **(**EC_ALGAETOX_TAB.EC50_MC**)**

5.2.6 Acute Toxicity for Micro-organisms (e.g. Bacteria)

GROUP_ID: ACUTETOX_MICROORG

FIELD_ID: AM_SPECIES
AM_UNIT
AM_EXPOSURE_PERIOD
AM_NOEC
AM_EC0
AM_EC10
AM_EC50

5.2.6.1 Property: AM_SPECIES

	GREAT-ER
Label	Species
Unit	-
Remark	Name of the species
Type	CHAR

	IUCLID
Table	EC_BACTOX_TAB
Field	SPECIES
Condition	TESTTYPE = ' E29-01' (aquatic) Only 1 record displayed with multiple data.

5.2.6.2 Property: AM_UNIT

	GREAT-ER
Label	Unit
Unit	-
Remark	Unit
Type	CHAR

	IUCLID
Table	EC_BACTOX_TAB
Field	UNIT
Condition	TESTTYPE = ' E29-01' (aquatic) Only 1 record displayed with multiple data.

5.2.6.3 Property: AM_EXPOSURE_PERIOD

	GREAT-ER
Label	Exposure Period
Unit	-

Remark	Exposure Period
Type	FLOAT

	IUCLID
Table	EC_BACTOX_TAB
Field	EXP_VALUE, EXP_UNIT
Condition	TESTTYPE = ' E29-01' (aquatic) Only 1 record displayed with multiple data.
Remark	Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_BACTOX_TAB.EXP_VALUE EC_BACTOX_TAB.EXP_UNIT

5.2.6.4 Property: AM_NOEC

	GREAT-ER
Label	NOEC
Unit	-
Remark	No observed effect concentration
Type	CHAR

	IUCLID
Table	EC_BACTOX_TAB
Field	NOEC_LOWER, NOEC_UPPER, NOEC_MC
Condition	TESTTYPE = ' E29-01' (aquatic) Only 1 record displayed with multiple data.
Remark	Normally the field 'NOEC_LOWER' is displayed. If this field is empty the field 'NOEC_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_BACTOX_TAB.NOEC_LOWER **..** EC_BACTOX_TAB.NOEC_UPPER **(**EC_BACTOX_TAB.NOEC_MC**)**

5.2.6.5 Property: AM_EC0

	GREAT-ER
Label	EC0
Unit	-
Remark	Effect Concentration (number refers to percentage of total effect 100%)
Type	CHAR

	IUCLID
Table	EC_BACTOX_TAB

Field	EC0_LOWER, EC0_UPPER, EC0_MC
Condition	TESTTYPE = ' E29-01' (aquatic) Only 1 record displayed with multiple data.
Remark	Normally the field 'EC0_LOWER' is displayed. If this field is empty the field 'EC0_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_BACTOX_TAB.EC0_LOWER **..** EC_BACTOX_TAB.EC0_UPPER **(**EC_BACTOX_TAB.EC0_MC**)**

5.2.6.6 Property: AM_EC10

	GREAT-ER
Label	EC10
Unit	-
Remark	Effect Concentration (number refers to percentage of total effect 100%)
Type	CHAR

	IUCLID
Table	EC_BACTOX_TAB
Field	EC10_LOWER, EC10_UPPER, EC10_MC
Condition	TESTTYPE = ' E29-01' (aquatic) Only 1 record displayed with multiple data.
Remark	Normally the field 'EC10_LOWER' is displayed. If this field is empty the field 'EC10_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_BACTOX_TAB.EC10_LOWER **..** EC_BACTOX_TAB.EC10_UPPER **(**EC_BACTOX_TAB.EC10_MC**)**

5.2.6.7 Property: AM_EC50

	GREAT-ER
Label	EC50
Unit	-
Remark	Effect Concentration (number refers to percentage of total effect 100%)
Type	CHAR

	IUCLID
Table	EC_BACTOX_TAB
Field	EC50_LOWER, EC50_UPPER, EC50_MC
Condition	TESTTYPE = ' E29-01' (aquatic) Only 1 record displayed with multiple data.

Remark	Normally the field 'EC50_LOWER' is displayed. If this field is empty the field 'EC50_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_BACTOX_TAB.EC50_LOWER **..** EC_BACTOX_TAB.EC50_UPPER **(**EC_BACTOX_TAB.EC50_MC**)**

5.2.7 Chronic Toxicity for Fish

GROUP_ID: CHRONTOX_FISH

FIELD_ID: CF_SPECIES
CF_UNIT
CF_EXPOSURE_PERIOD
CF_LLC
CF_NOEC
CF_LOEC

5.2.7.1 Property: CF_SPECIES

	GREAT-ER
Label	Species
Unit	-
Remark	Name of the species
Type	CHAR

	IUCLID
Table	EC_CHRONFISHTOX_TAB
Field	SPECIES
Condition	Only 1 record displayed with multiple data.

5.2.7.2 Property: CF_UNIT

	GREAT-ER
Label	Unit
Unit	-
Remark	Unit
Type	CHAR

	IUCLID
Table	EC_CHRONFISHTOX_TAB
Field	UNIT
Condition	Only 1 record displayed with multiple data.

5.2.7.3 Property: CF_EXPOSURE_PERIOD

	GREAT-ER
Label	Exposure Period
Unit	-
Remark	Exposure Period
Type	CHAR

	IUCLID
Table	EC_CHRONFISHTOX_TAB
Field	EXP_VALUE, EXP_UNIT
Condition	Only 1 record displayed with multiple data.
Remark	Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_CHRONFISHTOX_TAB.EXP_VALUE EC_CHRONFISHTOX_TAB.EXP_UNIT

5.2.7.4 Property: CF_LLC

	GREAT-ER
Label	LLC
Unit	-
Remark	Lowest lethal concentration
Type	CHAR

	IUCLID
Table	EC_CHRONFISHTOX_TAB
Field	LLC_LOWER, LLC_UPPER, LLC_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'LLC_LOWER' is displayed. If this field is empty the field 'LLC_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_CHRONFISHTOX_TAB.LLC_LOWER **..** EC_CHRONFISHTOX_TAB.LLC_UPPER **(**EC_CHRONFISHTOX_TAB.LLC_MC**)**

5.2.7.5 Property: CF_NOEC

	GREAT-ER
Label	NOEC
Unit	-
Remark	No observed effect concentration
Type	CHAR

	IUCLID
Table	EC_CHRONFISHTOX_TAB
Field	NOEC_LOWER, NOEC_UPPER, NOEC_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'NOEC_LOWER' is displayed. If this field is empty the field 'NOEC_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_CHRONFISHTOX_TAB.NOEC_LOWER **..** EC_CHRONFISHTOX_TAB.NOEC_UPPER **(**EC_CHRONFISHTOX_TAB.NOEC_MC**)**

5.2.7.6 Property: CF_LOEC

	GREAT-ER
Label	LOEC
Unit	-
Remark	Lowest observed Effect Concentration
Type	CHAR

	IUCLID
Table	EC_CHRONFISHTOX_TAB
Field	LOEC_LOWER, LOEC_UPPER, LOEC_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'LOEC_LOWER' is displayed. If this field is empty the field 'LOEC_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_CHRONFISHTOX_TAB.LOEC_LOWER **..** EC_CHRONFISHTOX_TAB.LOEC_UPPER **(**EC_CHRONFISHTOX_TAB.LOEC_MC**)**

5.2.8 Chronic Toxicity for Aquatic Invertebrates

GROUP_ID: CHRONTOX_INVERTEBRATES

FIELD_ID: CI_SPECIES
CI_UNIT
CI_EXPOSURE_PERIOD
CI_NOEC
CI_LOEC
CI_EC50

5.2.8.1 Property: CI_SPECIES

	GREAT-ER

Label	Species
Unit	-
Remark	Name of the species
Type	CHAR

	IUCLID
Table	EC_CHRONDAPHNIATOX_TAB
Field	SPECIES
Condition	Only 1 record displayed of with multiple data.

5.2.8.2 Property: CI_UNIT

	GREAT-ER
Label	Unit
Unit	-
Remark	Unit
Type	CHAR

	IUCLID
Table	EC_CHRONDAPHNIATOX_TAB
Field	UNIT
Condition	Only 1 record displayed with multiple data.

5.2.8.3 Property: CI_EXPOSURE_PERIOD

	GREAT-ER
Label	Exposure Period
Unit	-
Remark	Exposure Period
Type	CHAR

	IUCLID
Table	EC_CHRONDAPHNIATOX_TAB
Field	EXP_VALUE, EXP_UNIT
Condition	Only 1 record displayed with multiple data.
Remark	Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_CHRONDAPHNIATOX_TAB.EXP_VALUE EC_CHRONDAPHNIATOX_TAB.EXP_UNIT

5.2.8.4 Property: CI_NOEC

	GREAT-ER
Label	NOEC
Unit	-
Remark	No observed effect concentration
Type	CHAR

	IUCLID
Table	EC_CHRONDAPHNIATOX_TAB
Field	NOEC_LOWER, NOEC_UPPER, NOEC_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'NOEC_LOWER' is displayed. If this field is empty the field 'NOEC_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_CHRONDAPHNIATOX_TAB.NOEC_LOWER **..** EC_CHRONDAPHNIATOX_TAB.NOEC_UPPER **(**EC_CHRONDAPHNIATOX_TAB.NOEC_MC**)**

5.2.8.5 Property: CI_LOEC

	GREAT-ER
Label	LOEC
Unit	-
Remark	Lowest observed Effect Concentration
Type	CHAR

	IUCLID
Table	EC_CHRONDAPHNIATOX_TAB
Field	LOEC_LOWER, LOEC_UPPER, LOEC_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'LOEC_LOWER' is displayed. If this field is empty the field 'LOEC_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_CHRONDAPHNIATOX_TAB.LOEC_LOWER **..** EC_CHRONDAPHNIATOX_TAB.LOEC_UPPER **(**EC_CHRONDAPHNIATOX_TAB.LOEC_MC**)**

5.2.8.6 Property: CI_EC50

	GREAT-ER
Label	EC50

Unit	-
Remark	Effect Concentration (number refers to percentage of total effect 100%)
Type	CHAR

	IUCLID
Table	EC_CHRONDAPHNIATOX_TAB
Field	EC50_LOWER, EC50_UPPER, EC50_MC
Condition	Only 1 record displayed with multiple data.
Remark	Normally the field 'EC50_LOWER' is displayed. If this field is empty the field 'EC50_UPPER' is displayed. Data field contains more than one value. Values will be concatenated as in IUCLID display. EC_CHRONDAPHNIATOX_TAB.EC50_LOWER **..** EC_CHRONDAPHNIATOX_TAB.EC50_UPPER **(**EC_CHRONDAPHNIATOX_TAB.EC50_MC**)**

6 Source code

The substance data base of GREAT-ER is very flexible. This means if other properties are to be transferred from IUCLID to GREAT-ER this can be realized by modifying the PL/SQL Package “iuc_greater_pkg” of the ORACLE user IUCLID. Please refer to the file “2_run_as_iuclid.sql” on this interface.