

# IUCLID Guidance Document

Version 1.1  
14 December 2000

## Chapter C.3 - C.4

The IUCLID Guidance Document consists of the following parts:

|             |   |
|-------------|---|
| File names: | <p>IUC-GD-A-C0.pdf: Chapters A, B and C.0<br/> IUC-GD-C1-C2.pdf: Chapters C.1 - C2<br/> IUC-GD-C3-C4.pdf: Chapters C.3 - C4<br/> IUC-GD-C5-C7.pdf: Chapters C.5 - C7<br/> IUC-GD-Apx1.pdf: Appendix 1</p> <p>IUC-GD-Apx2.exe: Appendix 2 in the form of electronic files (self-extracting):<br/> (i) all sample freetexts as single ASCII text documents (*.txt)<br/> (ii) export file (SampFtxt.exp ) with template data set "1-Sample Freetexts" containing all sample freetexts in subchapter 1.1.0 (follow instructions given in chapter B.3.5.2.2)</p> |
|-------------|---|

### C.3 Chapter: Environmental Fate and Pathways

C.3.1.1 Photodegradation



Example screen

Only defined fields displayed (# list field; # non-list field)

**3.1.1 Photodegradation**

Last Changes **24-AUG-2000** Order Number **1** Reliabilities **2**

Type **air**

Light Source **Sun light**

Light Spect. **5a** **5b** **5c** nm

Rel. Intens. **6a** **6b** **6c** based on Intensity of Sunlight

Spectrum of Substance

lambda (max) [ $\geq 295\text{nm}$ ] **7** nm epsilon (max) **8**

epsilon [295] **9**

Conc. of Subst. **10a** **10b** Temperature **150** **11** °C

**DIRECT PHOTOLYSIS**

Halflife t1/2 **12a** **1** **12b** **3** **12c** **hour(s)** **12d**

Degradation **13a** **13b** **13c** % after **13d** **13e**

Quantum yield **14**

**INDIRECT PHOTOLYSIS**

Sensitizer **15**

Conc. of Sensitizer **16a** **16b**

Rate Constant **17a** **17b** cm<sup>3</sup>/(molecule\*sec)

Degradation **ca.** **18a** **100** **18b** **18c** % after **30** **18d** **hour** **18e**

Deg. Product **19**

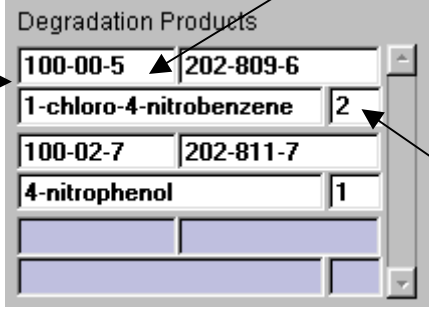
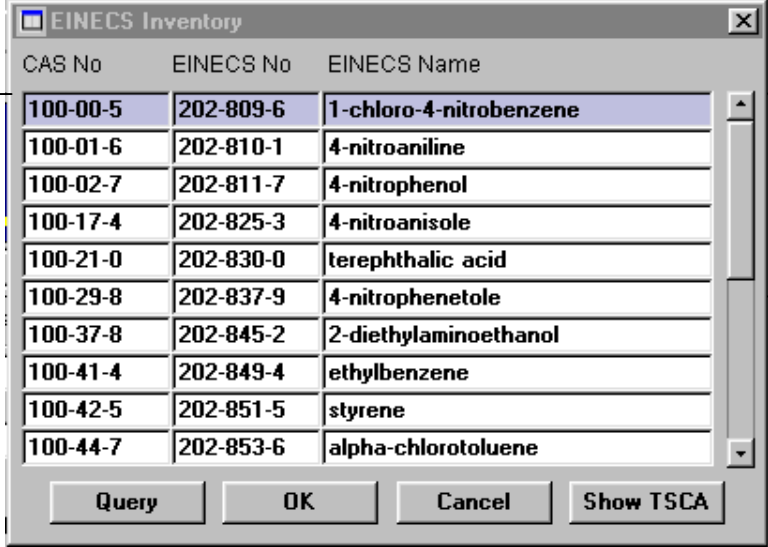
Method **20** Year **21**

GLP **22** Testsubstance **23**



**Defined fields**

| No.                        | Field name                                    | Guidance note   | See also<br>Freetext |
|----------------------------|---|---|----------------------|
| 1                          | Order Number                                  | For optional entry (see guidance in chapter C.0.1.3)  |                      |
| 2                          | Reliabilities                                 | Select code from picklist (see guidance in chapter C.0.1.3)   | <b>RL</b>            |
| 3                          | Type  | Select from picklist: [air / other / soil / water]  | <b>TC</b>            |
| 4                          | Light source                                  | Select from picklist: [sunlight, xenon lamp, other]   |                      |
| 5                          | Light spectrum                                | Subfield 5a: Select from picklist: [< / <= / = / > / >= / ca.]<br>Subfield 5b-c: Enter numerical value (in nm) or range.  |                      |
| 6                          | Relative Intensity                            | Subfield 6a: Select from picklist: [< / <= / = / > / >= / ca.]<br>Subfield 6b-c: Enter numerical value for relative intensity based on intensity of sunlight or range.  |                      |
| 7                          | Spectrum of substance: lambda (max) [>295 nm] | Enter numerical value   |                      |
| 8                          | Spectrum of substance: epsilon (max)          | Enter numerical value   |                      |
| 9                          | Spectrum of substance: epsilon [295]          | Enter numerical value   |                      |
| 10                         | Conc. of Subst.                               | Subfield 10a: Enter numerical value (Note that only one value can be entered. Use freetext TC to include range)<br>Subfield 10b: Select from picklist: [g/l / mg/l / mmol/l / mol/l]  |                      |
| 11                         | Temperature                                   | Enter numerical value.  |                      |
| <b>DIRECT PHOTOLYSIS</b>   |   |   |                      |
| 12                         | Half-life t1/2                                | Subfield 12a: Select from picklist: [< / <= / = / > / >= / ca.]<br>Subfield 12b-c: Enter numerical value or range<br>Subfield 12d: Select from picklist, e.g. [day / hour(s) / etc.]  | <b>RS</b>            |
| 13                         | Degradation                                   | Subfield 13a: Select from picklist: [< / <= / = / > / >= / ca.]<br>Subfield 13b-c: Enter numerical value or range<br>Subfield 13d: Enter percentage as numerical value<br>Subfield 13e: Select from picklist, e.g. [day / hour(s) / etc.] |                      |
| 14                         | Quantum yield                                 | Enter reaction quantum yield of the test substance  |                      |
| <b>INDIRECT PHOTOLYSIS</b> |   |   |                      |
| 15                         | Sensitizer                                    | Select from picklist: [NO3 / O3 / OH / natural water / other / water with additives]<br>If [other] is selected, include details in freetext type TC, e.g. source, pH, dissolved substances etc.   | <b>TC</b>            |
| 16                         | Concentration of Sensitizer                   | Subfield 16a: Enter numerical value.<br>Subfield 16b: Select from picklist: [mg/l / molecule/cm <sup>3</sup> ]  |                      |
| 17                         | Rate Constant                                 | Subfield 17a: Select from picklist, e.g. [< / <= / = / > / >= / ca.]<br>Subfield 17b: Enter numerical value.  | <b>RS</b>            |

| No. | Field name                                     | Guidance note   | See also<br>Freetext |
|-----|--|---|----------------------|
| 18  | Degradation %<br>after                         | Subfield 18a: Select from picklist, e.g. [< / <= / = / > / >= / ca.]<br>Subfield 18b-c: Enter numerical value or range<br>Subfield 18d: Enter percentage as numerical value<br>Subfield 18e: Select from picklist, e.g. [day / hour(s)/ etc.]   |                      |
| 19  | Deg. product<br>Box<br>Degradation<br>Products | <p>Select from picklist: [yes / no / not measured]<br/>Denote any degradation products using specific box "Degradation Products". &lt;F7&gt; or double click on field to open query modul and</p>  <p>select degradation product(s). Place order number in small field as appropriate. Include any other information on deg. products , e.g. regarding their stability, in freetext type RS.</p>  |                      |
| 20  | Method   | Select from picklist, e.g. [EPA Guideline subdivision N 161-2 / OECD Guideline draft, other (calculated) / other (measured) / etc.]. If [other] is selected, specify.   | <b>ME</b>            |
| 21  | Year   | Enter year of method if known   |                      |
| 22  | GLP  | Select from picklist: [no, no data, yes] (see also C.0.1.3)   | <b>ME</b>            |
| 23  | Test Substance                                 | Select from picklist: [as prescribed by 1.1 - 1.4 / no data / other TS]. Note any information as freetext (see also C.0.1.3)  | <b>TS</b>            |



## Freetext fields

Optional or conditional entry of data in freetext form, in addition to data entered in defined fields:

### Freetext type **TS** - Test substance

See guidance given in chapter C.0.2.3

**Subchapter-specific guidance:** Give any substance specific properties affecting test performance/applicability of the method (e.g. stability in water, volatility, water solubility, oxidising properties, ionizing/protonating properties, pKa value).

If radiolabelled test material is used, give details (e.g. position of label)

If available, give the UV/VIS absorption spectra and the absorbance ( $A_\lambda$ ) as a function of wavelength (290 to 800 nm).

### Freetext type **ME** - Method

Additional information to that entered in defined fields can be given here using subheadings if appropriate. See guidance and sample freetext provided in chapter C.0.2.3.

**Subchapter-specific guidance:** Describe the analytical method for the identification of the parent compound, transformation products and actinometer-chemicals, including sample preparation, enrichment technique (if necessary), recovery data, precision and calibration.

### Freetext type **TC** - Test conditions

Describe protocol deviations from test guideline and any other relevant information. If a study was not conducted in accordance with a standard guideline, a full and detailed description of the method used should be included particularly in the case of robust summaries on key studies.

As to the amount of detail to be reported see also guidance given in subchapter C.0.2.3.

**Subchapter-specific guidance:** include/adapt/delete any of the following items or add items as appropriate:

Sample Freetext 3\_1\_1-TC

#### TEST TYPE:

- Test medium: (If no picklist entry in defined field Type)
- Test system: (Describe any details as appropriate)
- Concentration of test substance: (Only if not given in defined field, e.g. because it is a range of concentration)
- Concentration of sensitizer: (Only if not given in defined field, e.g. because it is a range of concentration)
- Generation of sensitizer: (Describe any details as appropriate)
- Pressure or pressure range: (Describe any details as appropriate)

#### DURATION:

**REFERENCE SUBSTANCE:** (If irradiated control was determined)

#### DARK CONTROL:

#### OTHER:

**Freetext type RS - Results**

Include any information that cannot be entered adequately into defined fields. Describe any other information needed to assess data for reliability and use.

**Subchapter-specific guidance:** include/adapt/delete any of the following items or add items as appropriate:

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Sample Freetext 3\_1\_1-RS

**DIRECT PHOTOLYSIS:**

- Half life t<sub>1/2</sub>: (Only if no entry in defined field or information entered into defined field needs to be expanded)
- Degradation in % after: (Only if no entry in defined field or information entered into defined field needs to be expanded)
- Quantum yield: (Only if no entry in defined field or information entered into defined field needs to be expanded)

**INDIRECT PHOTOLYSIS:**

- Rate constant: (Only if no entry in defined field or information entered into defined field needs to be expanded)
- Half life t<sub>1/2</sub>: (If determined)
- Degradation in % after: (Only if no entry in defined field or information entered into defined field needs to be expanded)

**BREAKDOWN PRODUCTS:**

(Only if no entry in defined field or information entered into defined field needs to be expanded. If degradation products are denoted in the box Degradation Products, describe whether they were transient or stable.)

**OTHER:**

(Describe any other information needed to assess data for reliability and use.)

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**See guidance in chapter C.0.3 for setting Flags and C.0.2.3 and for freetext types:**

**RL Reliability; CL Conclusion; RM Remarks; AD Attached doc.; RE Reference**

C.3.1.2 Stability in Water



**Example screen**

Only defined fields displayed (# list field; # non-list field)

**3.1.2 Stability in Water**

Last Changes  Order Number  Reliabilities

Type

t1/2 pH4   ..   at  °C

t1/2 pH7   ..   at  °C

t1/2 pH9   ..   at  °C

t1/2 pH    ..   at  °C

Degradation pH  at  °C

..  % after

Deg. Product

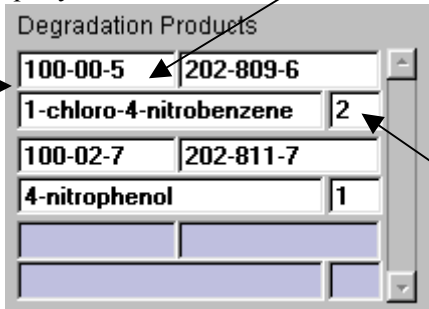
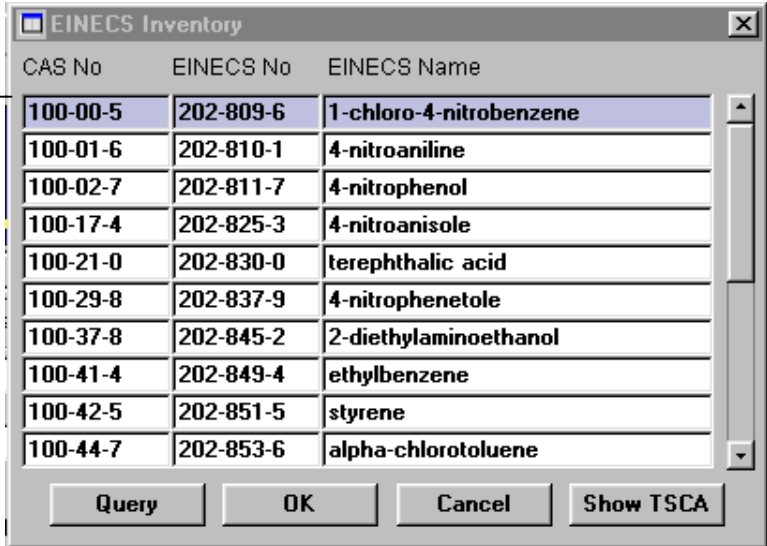
Method  Year

GLP  Testsubstance



**Defined fields**

| No. | Field name    | Guidance note  | See also<br>Freetext |
|-----|---------------|--|----------------------|
| 1   | Order Number  | For optional entry (see guidance in chapter C.0.1.3)   |                      |
| 2   | Reliabilities | Select code from picklist (see guidance in chapter C.0.1.3)  | <b>RL</b>            |
| 3   | Type          | Select from picklist: [abiotic / biotic]   | <b>TC</b>            |
| 4   | t1/2 pH 4     | Subfield 4a: Select from picklist: [< / <= / = / > / >= / ca.]<br>Subfield 4b-c: Enter numerical value of pH or range<br>Subfield 4d: Select from picklist, e.g. [day / hour(s) / etc.]<br>Subfield 4e: Enter numerical value of temperature | <b>RS</b>            |
| 5   | t1/2 pH 7     | ditto  |                      |
| 6   | t1/2 pH 9     | ditto  |                      |
| 7   | t1/2 pH ....  | Subfield 7a: Enter half-life, if other than 4, 7, 9<br>Subfield 7b-f: equivalent to subfields 4a-4e (see above)  |                      |

| No. | Field name                                     | Guidance note  | See also<br>Freetext |
|-----|--|--|----------------------|
| 8   | Degradation                                    | <p>Enter degradation % at a specified pH and temperature °C after a specified time filling in:</p> <ul style="list-style-type: none"> <li>- subfield 8a: Enter numerical value of pH</li> <li>- subfield 8b: Enter numerical value of temperature</li> <li>- subfield 8c: Select from picklist: [&lt; / &lt;= / = / &gt; / &gt;= / ca.]</li> <li>- subfield 8d-e: Enter numerical value of percentage or range</li> <li>- subfield 8f: Enter numerical value of time</li> <li>- subfield 8g: Select from picklist, e.g. [day / hour(s)/ etc.]</li> </ul>                           |                      |
| 9   | Deg. product<br>Box<br>Degradation<br>Products | <p>Select from picklist: [no / not measured / yes]</p> <p>Denote any degradation products using specific box "Degradation Products". &lt;F7&gt; or double click on field to open query modul and</p>  <p>select specific degradation product(s). Place order number in small field as appropriate. Include any other information on deg. products , e.g. regarding their stability, in freetext type RS.</p>  |                      |
| 10  | Method   | <p>Select from picklist, e.g. [Directive 84/449/EEC / C.10 / OECD Guide-line 111 / other / other (calculated) / etc.]. If [other] is selected, specify.</p>  |                      |
| 11  | Year   | Enter year of method if known  |                      |
| 12  | GLP  | Select from picklist: [no, no data, yes] (see also C.0.1.3)  | <b>ME</b>            |
| 13  | Test Substance                                 | Select from picklist: [as prescribed by 1.1 - 1.4 / no data / other TS]. Note any information as freetext (see also C.0.1.3)   | <b>TS</b>            |



**Freetext fields**

Optional or conditional entry of data in freetext form, in addition to data entered in defined fields:

**Freetext type TS - Test substance**

See guidance given in chapter C.0.2.3

**Freetext type ME - Method**

Additional information to that entered in defined fields can be given here using subheadings if appropriate. See guidance and sample freetext provided in chapter C.0.2.3.

**Freetext type TC - Test conditions**

Describe protocol deviations from test guideline and any other relevant information. If a study was not conducted in accordance with a standard guideline, a full and detailed description of the method used should be included particularly in the case of robust summaries on key studies.

As to the amount of detail to be reported see also guidance given in subchapter C.0.2.3.

**Subchapter-specific guidance:** include/adapt/delete any of the following items or add items as appropriate:

Sample Freetext 3\_1\_2-TC

**TEST TYPE:**

- Test medium: (If no picklist entry in defined field Type)
- Test system: (Describe any details as appropriate)
- Concentration of test substance:

**DURATION:**

**REFERENCE SUBSTANCE:** (If used)

**CONTROLS:** (If used to test for other than hydrolytic breakdown)

**Freetext type RS - Results**

Describe any other information needed to assess data for reliability and use.

**Subchapter-specific guidance:** If degradation products are denoted in the box Degradation Products, describe whether they were transient or stable.

**See guidance in chapter C.0.3 for setting Flags and C.0.2.3 and for freetext types:**  
RL Reliability; CL Conclusion; RM Remarks; AD Attached doc.; RE Reference

C.3.1.3 Stability in Soil (to be prepared)

**C.3.2 Monitoring Data (Environment) (to be prepared)**

**C.3.3 no IUCLID heading**

C.3.3.1 Transport between Environ. Compart.



**Example screen**

Only defined fields displayed (# list field; # non-list field)

**3.3.1 Transport between Environ. Compart.**

Last Changes: 23-OCT-1995      Order Number: 1      Reliabilities: 2

Type: volatility (3)

Media: water - air (4)

Air: (5) % (Fugacity Model Level I)

Water: (6) % (Fugacity Model Level I)

Soil: (7) % (Fugacity Model Level I)

Biota: (8) % (Fugacity Model Level II/III)

Soil: (9) % (Fugacity Model Level II/III)

Method: (10)      Year: (11)



**Defined fields**

| No. | Field name                          | Guidance note   | See also<br>Freetext |
|-----|-------------------------------------|---|----------------------|
| 1   | Order Number                        | For optional entry (see guidance in chapter C.0.1.3)  |                      |
| 2   | Reliabilities                       | Select code from picklist (see guidance in chapter C.0.1.3)   | RL                   |
| 3   | Type                                | Select from picklist, e.g. [adsorption / fugacity model level I / other / etc.]. If [other] is selected, specify. | TC                   |
| 4   | Media                               | Select from picklist: [other / soil / water - air / water - soil]   |                      |
| 5   | Air (Fugacity Model Level I)        | Enter estimated distribution and media concentration in %   | RS                   |
| 6   | Water (Fugacity Model Level I)      | Enter estimated distribution and media concentration in %   |                      |
| 7   | Soil (Fugacity Model Level I)       | Enter estimated distribution and media concentration in %   |                      |
| 8   | Biota (Fugacity Model Level II/III) | Enter estimated distribution and media concentration in %   |                      |
| 9   | Soil (Fugacity Model Level II/III)  | Enter estimated distribution and media concentration in %   |                      |

| No. | Field name | Guidance note  | See also<br>Freetext |
|-----|------------|--|----------------------|
| 10  | Method     | Select from picklist, e.g. [EPA OPPTS 835.1110 / other / etc.]. If [other] is selected, specify. | <b>ME</b>            |
| 11  | Year       | Enter year of method if known  |                      |
| 12  | GLP        | Select from picklist: [no, no data, yes] (see also C.0.1.3)                                      | <b>ME</b>            |



### Freetext fields

Optional or conditional entry of data in freetext form, in addition to data entered in defined fields:

#### Freetext type **TS** - Test substance

See guidance given in chapter C.0.2.3

#### Freetext type **ME** - Method

Additional information to that entered in defined fields can be given here using subheadings if appropriate. See guidance and sample freetext provided in chapter C.0.2.3.

**Subchapter-specific guidance:** Describe detail of the model used (title, version and date)

#### Freetext type **TC** - Test conditions

Describe protocol deviations from test guideline and any other relevant information. If a study was not conducted in accordance with a standard guideline, a full and detailed description of the method used should be included particularly in the case of robust summaries on key studies.

As to the amount of detail to be reported see also guidance given in subchapter C.0.2.3.

**Subchapter-specific guidance:** Detail the input parameters (chemical-specific, environmental conditions) as necessary. In the event of MacKay calculations, include the basis data used. You may use and adapt the following sample freetext or attach a table e.g. as adopted from the study report:

Sample Freetext 3\_3\_1-TC

#### **PHYSICO-CHEMICAL PARAMETERS:**

- Temperature [°C]:
- Molecular weight [g/mol]:
- Melting point [°C]:
- Vapor pressure [hPa]:
- Water solubility [g/m<sup>3</sup>]:
- log Kow:

(Give values and indicate in parentheses if measured or estimated)

#### **ENVIRONMENT:**

- Air:
- Water:
- Soil:

(For all compartments, enter values for following parameters if applicable:  
 volume[m<sup>3</sup>]: / depth[m]: / area[m<sup>2</sup>]: / organic carbon[%]: / lipid content[%]: / density[kg/m<sup>3</sup>]: / residence time [h]: )

- Sediment:
- Suspended sediment:
- Biota:

**INTERMEDIA TRANSPORT PARAMETERS:** (Enter intermedia transport parameters, if applicable, e.g. rain rate, aerosol deposition, soil solid runoff)

**FURTHER PARAMETERS FOR LEVEL II/III ONLY:**

- HALF LIFE:** (Give values for the different compartments if applicable)
- RATE CONSTANT FOR DEGRADATION:** (Give values for the different compartments if applicable)
- ADSORPTION COEFFICIENT (K<sub>oc</sub>):** (Give values for the different compartments if applicable)
- BIOCONCENTRATION FACTOR (BCF):** (Give values for the different compartments if applicable)
- EMISSIONS:** (Give values for the different compartments if applicable)

**Freetext type RS - Results**

Describe any other information needed to assess data for reliability and use.

**Subchapter-specific guidance:** In the event of MacKay calculations, add results on:

ESTIMATED DISTRIBUTION (%)

- Sediment:
- Suspended sediment

See guidance in chapter C.0.3 for setting Flags and C.0.2.3 and for freetext types: RL Reliability; CL Conclusion; RM Remarks; AD Attached doc.; RE Reference

C.3.3.2 Distribution (to be prepared)

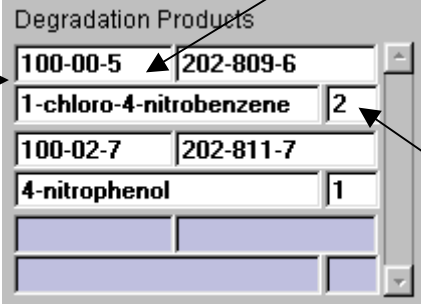
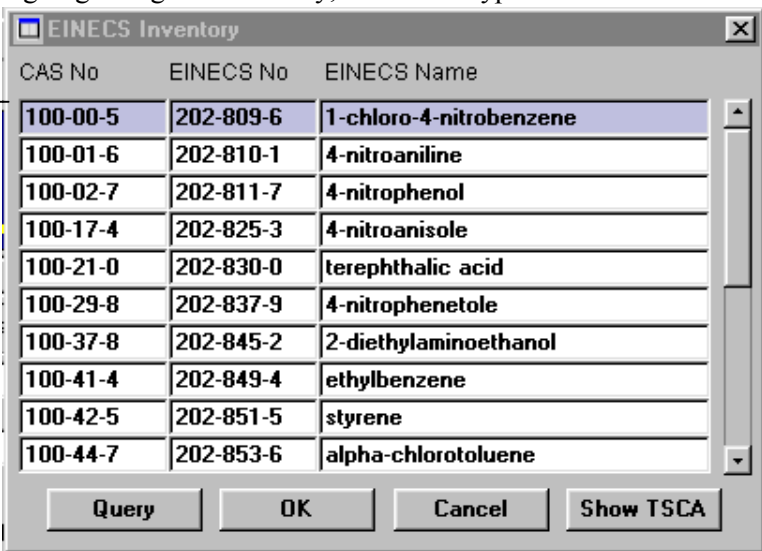
**C.3.4 Mode of Degradation in Actual Use (to be prepared)**





**Defined fields**

| No. | Field name                     | Guidance note   | See also<br>Freetext |
|-----|--------------------------------|---|----------------------|
| 1   | Order Number                   | For optional entry (see guidance in chapter C.0.1.3)  |                      |
| 2   | Reliabilities                  | Select code from picklist (see guidance in chapter C.0.1.3)   | <b>RL</b>            |
| 3   | Type                           | Select from picklist: [aerobic / anaerobic]   | <b>TC</b>            |
| 4   | Inoculum                       | Select from picklist, e.g. [Acrostalagmus sp. / Citrobacter sp. / other / etc.]   |                      |
| 5   | Concentration                  | Enter concentrations tested and parameter they were related to; if more than two concentrations, use freetext.<br>Subfield 5a: Enter numerical value of concentration tested<br>Subfield 5b: Select unit from picklist, e.g. [g/l / mg/l / etc.]<br>Subfield 5c: Select from picklist: [COD / DOC /Test substance]  |                      |
| 6   | Contact Time                   | Subfield 6a: Enter numerical value<br>Subfield 6b: Select from picklist, e.g. [day / hour (s) / etc.]   |                      |
| 7   | Degradation                    | Enter degradation in % at after a specified time filling in:<br>- subfield 7a: Select from picklist: [< / <= / = / > / >= / ca.]<br>- subfield 7b-c: Enter numerical value of percentage or range<br>- subfield 7d: Enter numerical value of standard deviation<br>- subfield 7e: Enter numerical value of time<br>- subfield 7f: Select from picklist, e.g. [day / hour(s) / etc.] |                      |
| 8   | Results                        | Select from picklist, e.g. [inherently biodegradable / other / readily biodegradable / etc.]  | <b>RS</b>            |
| 9   | Kinetic of Test Substance      | Enter % degradation of test substance against time filling in:<br>- subfield 9a: Enter numerical value of time<br>- subfield 9b: Select from picklist: [day / hour(s)]<br>- subfield 9c: Select from picklist: [< / <= / = / > / >= / ca.]<br>- subfield 9d-e: Enter numerical value of percentage or range   |                      |
| 10  | Control Substance              | Select from picklist, e.g. [Acetic acid, sodium salt, Aniline]  |                      |
| 11  | Kinetic (of control substance) | Enter % degradation of control substance against time filling in:<br>- subfield 11a: Enter numerical value of time<br>- subfield 11b: Select from picklist: [day / hour(s)]<br>- subfield 11c: Select from picklist: [< / <= / = / > / >= / ca.]<br>- subfield 11d-e: Enter numerical value of percentage or range  |                      |
| 12  | Deg. Product                   | Select from picklist: [no / not measured/ yes]  |                      |

| No. | Field name               | Guidance note   | See also |
|-----|--------------------------|---|----------|
|     | Box Degradation Products | <p>Denote any degradation products using specific box "Degradation Products". &lt;F7&gt; or double click on field to open query modul and</p>  <p>select degradation product(s). Place order number in small field as appropriate. Include any other information on deg. products , e.g. regarding their stability, in freetext type RS.</p>  | Freetext |
| 13  | Method                   | Select from picklist, e.g. [Directive 84/449/EEC, C.3 / ECETOC Anaerobic biodegradation / other / etc.]. If [other] is selected, specify.   | ME       |
| 14  | Year                     | Enter year of method if known   |          |
| 15  | GLP                      | Select from picklist: [no, no data, yes] (see also C.0.1.3)   | ME       |
| 16  | Test Substance           | Select from picklist: [as prescribed by 1.1 - 1.4 / no data / other TS]. Note any information as freetext (see also C.0.1.3)  | TS       |



### Freetext fields

Optional or conditional entry of data in freetext form, in addition to data entered in defined fields:

#### Freetext type **TS** - Test substance

See guidance given in chapter C.0.2.3

**Subchapter-specific guidance:** If appropriate; note any substance-specific properties affecting test performance/applicability of the method: e.g. stability, vapor pressure, water solubility, adsorption potential (log P<sub>ow</sub>), toxicity to tested species.

Sample Freetext 3\_5\_TS

**FACTORS AFFECTING TEST:** (If appropriate; give any substance specific properties affecting test performance/applicability of the method such as the factors listed as follows)

- Stability:
- Vapor pressure:
- Water solubility:
- Adsorption potential (log P<sub>ow</sub>):
- Toxicity to microorganisms:
- Other (specify):

#### Freetext type **ME** - Method

Additional information to that entered in defined fields can be given here using subheadings if appropriate. See guidance and sample freetext provided in chapter C.0.2.3.

#### Freetext type **TC** - Test conditions

Describe protocol deviations from test guideline and any other relevant information. If a study was not conducted in accordance with a standard guideline, a full and detailed description of the method used should be included particularly in the case of robust summaries on key studies.

As to the amount of detail to be reported see also guidance given in subchapter C.0.2.3.

**Subchapter-specific guidance:** include/adapt/delete any of the following items or add items as appropriate:

Sample Freetext 3\_5-TC

#### INOCULUM/TEST ORGANISM

- Type of sludge: (Only if not given in defined field)
- Species/strain: (Only if not given in defined field)
- Source: (e.g. sewage treatment plant treating predominantly domestic sewage)
- Sampling site:
- Feeding: (Kind, amount of feed, feeding frequency)
- Method of cultivation: (e.g. laboratory culture; specify as appropriate)
- Preparation of inoculum: (Give details, e.g. on washing, centrifugation)
- Pretreatment: (e.g. adaptation)
- Initial cell concentration: (Depending on test method, include data as mg suspended solids/l, mg effluent/l or approx. number of cells/l)

**TEST SYSTEM**

- Culturing apparatus: (Only if not given in defined field)
- Number of culture flasks per concentration:
- Aeration device: (Specify or give details of flow-through system (e.g. flow-rate) and of semistatic system (intervals of renewal))
- Measuring equipment: (e.g. size, headspace, sealed, aeration, lighting, # per treatment)
- Closed vessels used: (Indicate if test was performed in closed vessels due to significant volatility of test substance)

**INITIAL TEST SUBSTANCE CONCENTRATION:**

(Only if information given in defined field "Concentration" needs to be supplemented; include data as mg TS/l, mg DOC/l or mg ThOD/l depending on test method)

**METHOD OF PREPARATION OF TEST SOLUTION:**

(Describe if appropriate, e.g. in case of poorly soluble test substance)

**DURATION OF THE TEST:**

(Only applicable, if data given in defined field "Contact time" need to be supplemented or explained)

**ANALYTICAL PARAMETER:**

(e.g. DOC removal, CO<sub>2</sub> evolution)

**SAMPLING:**

(Give details on sampling intervals)

**TEST CONDITIONS**

- Composition of medium: (Give details e.g. on added mineral medium)
- Additional substrate: (If yes, specify: e.g. peptone)
- Test temperature: (Give measurements conducted during test)
- pH value: (Give measurements conducted at start and end of test)
- Aeration of dilution water: (If yes, specify: e.g. air-flow)
- Concentration of suspended solids:
- Other relevant factors: (e.g. stirring of test solution)

**INTERMEDIATES / DEGRADATION PRODUCTS:**

(Only applicable, if data given in defined field "Deg. Product" need to be supplemented or explained)

**NITRATE/NITRITE MEASUREMENT:**

(Only applicable for BOD tests with nitrogen containing test substance)

**CONTROLS:**

(Specify type and relevant details of controls, e.g. "control without test substance"; "abiotic controls"; "adsorption control"; "toxicity control")

**REFERENCE SUBSTANCE:**

(In addition to information given in defined field "Control Subst.", specify reference substance and briefly describe method to analyze reference substance)

**Freetext type RS - Results**

Describe any other information needed to assess data for reliability and use.

**See guidance in chapter C.0.3 for setting Flags and C.0.2.3 and for freetext types:**

RL Reliability; CL Conclusion; RM Remarks; AD Attached doc.; RE Reference

**C.3.6 BOD5, COD or BOD5/COD Ratio (to be prepared)**

**C.3.7 Bioaccumulation (to be prepared)**

**C.3.8 Additional Remarks (to be prepared)**

C.4 Chapter: Ecotoxicity

C.4.1 Acute/Prolonged Toxicity to Fish



Example screen

Only defined fields displayed (# list field; # non-list field)

**4.1 Acute/Prolonged Toxicity to Fish**

Last Changes: 01-AUG-2000      Order Number: 1 (1)      Reliabilities: 2

Type: flow through (3)

Species: Cyprinus carpio (4)

Unit: mg/l (5)      Exposure Period: 2 (6a)      hour(s) (6b)

NOEC: [ ] [ ] [ ] [ ] .. [ ]

LC0: [ ] [ ] [ ] [ ] .. [ ]

LC50: [ ] = [ ] 74 [ ] .. [ ]

LC100: [ ] (7a) [ ] (7b) [ ] (7c) [ ] (7d)

[ ] (7e) [ ] [ ] [ ] [ ] .. [ ]

[ ] [ ] [ ] [ ] .. [ ]

Analyst Monitoring: [ ] (8)

Method: other: Akuter Toxizität (9)      list, "Flow throu"      Year: [ ] (10)

GLP: [ ] (11)      Testsubstance: [ ] (12)



Defined fields

| No. | Field name      | Guidance note  | See also<br>Freetext |
|-----|-----------------|--|----------------------|
| 1   | Order Number    | For optional entry (see guidance in chapter C.0.1.3)   |                      |
| 2   | Reliabilities   | Select code from picklist (see guidance in chapter C.0.1.3)  | RL                   |
| 3   | Type            | Select test type from picklist, e.g. [flow through / semistatic / static / etc.]. Select [other: ....] if not included in picklist.  | TC                   |
| 4   | Species         | Select from picklist, e.g. [Alburnus albidus costa / etc. ]. If [other] is selected, specify, e.g. [other: Acerina cernua]   |                      |
| 5   | Unit            | Select from picklist, e.g. [mg/l / µmol/l / etc.]  |                      |
| 6   | Exposure Period | Subfield 6a: Enter numerical value of exposure period, e.g. [96] (if given in hours) or [4] (if given in days)<br>Subfield 6b: Select unit of exposure time from picklist: [day / hour(s) / minute(s)] |                      |

| No. | Field name  | Guidance note   | See also<br>Freetext |
|-----|---|---|----------------------|
| 7   | NOEC / LC0 / LC50 / LC100 / ..... / ..... / ..... | Enter effective concentration(s) in respective field(s); use empty text box(es) (7e) for other endpoint type(s) e.g. [TLm].<br>Subfield 7a: Select from picklist if known: [c (calculated) / m (measured)]<br>Subfield 7b: Select from picklist: [< / <= / = / > / >= / ca.]<br>Subfield 7c-d: Enter numerical value(s) of the respective effective concentration(s). If range is given, enter lower and upper value into both subfields. | <b>RS</b>            |
| 8   | Analytical Monitoring                             | Indicate if the test was analytically monitored; select from picklist: [no / no data / yes]   |                      |
| 9   | Method  | Select from picklist, e.g. [Directive 84/449/EEC, C.1 / EPA OPP 72-1 / etc.]. If "other" is selected, specify, e.g. "other: Method in principle comparable to OECD Guideline 203 with differences described in freetext Test conditions". Where required, justification may be given, e.g. "No guidelines available."   | <b>ME</b>            |
| 10  | Year  | Enter year of method if known   |                      |
| 11  | GLP   | Select from picklist: [no, no data, yes] (see also C.0.1.3)   | <b>ME</b>            |
| 12  | Test Substance                                    | Select from picklist: [as prescribed by 1.1 - 1.4 / no data / other TS]. Note any information as freetext (see also C.0.1.3)  | <b>TS</b>            |



### Freetext fields

Optional or conditional entry of data in freetext form, in addition to data entered in defined fields:

#### Freetext type **TS** - Test substance

See guidance given in chapter C.0.2.3

**Subchapter-specific guidance:** If appropriate; note any substance-specific properties affecting test performance/applicability of the method: e.g. stability, vapor pressure, water solubility.

#### Freetext type **ME** - Method

Additional information to that entered in defined fields can be given here using subheadings if appropriate. See guidance and sample freetext provided in chapter C.0.2.3.

#### Freetext type **TC** - Test conditions

Describe protocol deviations from test guideline and any other relevant information. If a study was not conducted in accordance with a standard guideline, a full and detailed description of the method used should be included particularly in the case of robust summaries on key studies.

As to the amount of detail to be reported see also guidance given in subchapter C.0.2.3.

**Subchapter-specific guidance:** include/adapt/delete any of the following items or add items as appropriate:

Sample Freetext 4\_1-TC

**TEST ORGANISMS**

- Strain:
- Supplier:
- Wild caught:
- Age/size/weight/loading:
- Feeding: (Kind, amount of feed, feeding frequency)
- Pretreatment: (e.g. acclimation period)
- Feeding during test:

**STOCK AND TEST SOLUTION AND THEIR PREPARATION**

- Dispersion:
- Vehicle, solvent: (e.g. organic solvents, emulsifiers or dispersants)
- Concentration of vehicle/solvent:
- Other procedures: (e.g. test in completely filled closed vessels for testing volatile test substance)

**STABILITY OF THE TEST CHEMICAL SOLUTIONS:**

(Note any relevant observations.)

**REFERENCE SUBSTANCE:**

(If relevant, specify reference substance and briefly describe method to analyze reference substance.)

**DILUTION WATER**

- Source:
- Aeration:
- Alkalinity:
- Hardness:
- Salinity:
- TOC:
- TSS:
- pH:
- Oxygen content:
- Conductance:
- Holding water:

**TEST SYSTEM**

- Test type: (Only if not given in defined field)
- Concentrations:
- Dosing rate:
- Renewal of test solution: (Specify or give details of flow-through system (e.g. flow-rate) and of semistatic system (intervals of renewal))
- Exposure vessel type: (e.g. size, headspace, sealed, aeration, lighting, # per treatment)
- Number of replicates, fish per replicate:

Sample Freetext 4\_1-TC

- Test temperature: (Give measurements of test temperature range; can also be included in results table)
- Dissolved oxygen: (Give measurements in the control and one concentration where effects were observed; can also be included in results table)
- pH: (Give measurements in the control and one concentration where effects were observed; can also be included in results table)
- Adjustment of pH: (specify)
- Intensity of irradiation: (e.g. 30 - 100 lm at water surface)
- Photoperiod: (e.g. 12 h photoperiod daily)
- DURATION OF THE TEST:** (Only applicable, if data given in defined field need to be supplemented or explained.)
- TEST PARAMETER:** (Indicate test parameter, e.g. mortality, particularly if deviating from standard test guidelines referred to.)
- SAMPLING:** (Give details on sampling intervals and sample storage before analysis.)
- MONITORING OF TEST SUBSTANCE CONCENTRATION:** (If "yes" has been entered into the defined field "Analyt. Monitoring", additional explanations on sampling intervals etc. may be given.)

**Freetext type RS - Results**

Describe any other information needed to assess data for reliability and use.

**Subchapter-specific guidance:** include/adapt/delete any of the following items or add items as appropriate:

Sample Freetext 4\_1-RS

**RESULTS: EXPOSED**

- Nominal/measured concentrations: (Give measurements of initial and actual concentrations during test, preferably in tabular form. If not measured, describe any observations, such as precipitation that might cause a difference between actual and nominal concentration.)
- Effect data (Mortality): (Give the mortality data as absolute numbers of immobile fish and as percentage of exposed animals in tabular form; report LC0, LC50, and LC100 values for at least 48 and 96 h (including 95 % c.l.))
- Concentration / response curve: (If relevant, a graph of the concentration-mortality curve at test termination can be attached. In this case, indicate here: "See Fig. 4\_1-1 in freetext type Attached document")
- Effect concentration vs. test substance solubility: (Discuss if element effect concentration is greater than test substance solubility.)
- Other effects: (Describe abnormal responses and any other relevant observations differentiating organisms in tests and controls, e.g. loss of equilibrium, erratic swimming, hyperventilation, lethargy, changes in appearance.)

**RESULTS: CONTROL**

Sample Freetext 4\_1-RS

- Number/percentage of animals showing adverse effects: (Give data, preferably in tabular form)

- Nature of adverse effects:

**RESULTS: TEST WITH REFERENCE SUBSTANCE**

(If a test with a reference substance was performed, the following items should be specified, if relevant)

- Concentrations:

- Results:

(Give data, e.g. LC50 value for mortality)

**Freetext type CL - Conclusion**

See guidance in chapter C.0.2.3.

**Subchapter-specific guidance:** Describe whether validity criteria of the test guidelines followed can be considered fulfilled, e.g. mortality of control animals <10%, etc.

**See guidance in chapter C.0.3 for setting Flags and C.0.2.3 and for freetext types:**

RL Reliability; RM Remarks; AD Attached doc.; RE Reference

C.4.2 Acute/Prolonged Toxicity to Fish



Example screen

Only defined fields displayed (# list field; # non-list field)

**4.2 Acute Tox. to Aquatic Invertebrates**

Last Changes: 07-APR-2000      Order Number: 1      Reliabilities: 2

Type: [ ]

Species: Daphnia magna

Unit: mg/l      Exposure Period: 24 hour(s)

NOEC: [ ] [ ] [ ] [ ]

EC0: [ ] [ ] [ ] [ ]

EC50: [ ] = 610 [ ] [ ]

EC100: [ ] [ ] [ ] [ ]

Analyt. Monitoring: [ ]

Method: other: acute toxicity defined accordin      Year: 1989

GLP: [ ]      Testsubstance: as presc by 1.1 - 1.4



Defined fields

| No. | Field name      | Guidance note  | Freetext |
|-----|-----------------|--|----------|
| 1   | Order Number    | For optional entry (see guidance in chapter C.0.1.3)   |          |
| 2   | Reliabilities   | Select code from picklist (see guidance in chapter C.0.1.3)  | RL       |
| 3   | Type            | Select test type from picklist, e.g. [flow through / semistatic / static / etc.]. Select [other: ....] if not included in picklist.  | TC       |
| 4   | Species         | Select from picklist, e.g. [Artemia salina / etc. ]. If [other] is selected, specify   |          |
| 5   | Unit            | Select from picklist, e.g. [mg/l / µmol/l / etc.]  |          |
| 6   | Exposure Period | Subfield 6a: Enter numerical value of exposure period, e.g. [96] (if given in hours) or [4] (if given in days)<br>Subfield 6b: Select unit of exposure time from picklist: [day / hour(s) / minute(s)] |          |

| No. | Field name  | Guidance note   | Freetext  |
|-----|---|---|-----------|
| 7   | NOEC / EC0 / EC50 / EC100 / ..... / ..... / ..... | Enter effective concentration(s) in respective field(s); use empty text box(es) (7e) for other endpoint type(s) e.g. [TLm].<br>Subfield 7a: Select from picklist if known: [c (calculated) / m (measured)]<br>Subfield 7b: Select from picklist: [< / <= / = / > / >= / ca.]<br>Subfield 7c-d: Enter numerical value(s) of the respective effective concentration(s). If range is given, enter lower and upper value into both subfields. | <b>RS</b> |
| 8   | Analytical Monitoring                             | Indicate if the test was analytically monitored; select from picklist: [no / no data / yes]   |           |
| 9   | Method  | Select from picklist, e.g. [Directive 84/449/EEC, C.2 / EPA OPP 72-2 / etc.]. If "other" is selected, specify   | <b>ME</b> |
| 10  | Year  | Enter year of method if known   |           |
| 11  | GLP   | Select from picklist: [no, no data, yes] (see also C.0.1.3)   | <b>ME</b> |
| 12  | Test Substance                                    | Select from picklist: [as prescribed by 1.1 - 1.4 / no data / other TS]. Note any information as freetext (see also C.0.1.3)  | <b>TS</b> |



### Freetext fields

Optional or conditional entry of data in freetext form, in addition to data entered in defined fields:

#### Freetext type **TS** - Test substance

See guidance given in chapter C.0.2.3

**Subchapter-specific guidance:** If appropriate; note any substance-specific properties affecting test performance/applicability of the method: e.g. stability, vapor pressure, water solubility.

#### Freetext type **ME** - Method

Additional information to that entered in defined fields can be given here using subheadings if appropriate. See guidance and sample freetext provided in chapter C.0.2.3.

#### Freetext type **TC** - Test conditions

Describe protocol deviations from test guideline and any other relevant information. If a study was not conducted in accordance with a standard guideline, a full and detailed description of the method used should be included particularly in the case of robust summaries on key studies.

As to the amount of detail to be reported see also guidance given in subchapter C.0.2.3.

**Subchapter-specific guidance:** include/adapt/delete any of the following items or add items as appropriate:

Sample Freetext 4\_2-TC

#### TEST ORGANISMS

- Strain:
- Source/supplier:

- Breeding method:
- Age:
- Feeding: (Kind, amount of feed, feeding frequency)
- Pretreatment: (e.g. acclimation period)
- Feeding during test:
- Control group:

#### **STOCK AND TEST SOLUTION AND THEIR PREPARATION**

- Dispersion:
- Vehicle, solvent: (e.g. organic solvents, emulsifiers or dispersants)
- Concentration of vehicle/  
solvent:
- Other procedures: (e.g. test in completely filled closed vessels for testing  
volatile test substance)

#### **STABILITY OF THE TEST CHEMICAL SOLUTIONS:**

(Note any relevant observations.)

#### **REFERENCE SUBSTANCE:**

(If relevant, specify reference substance and briefly describe method to analyze reference substance.)

#### **DILUTION WATER**

- Source:
- Aeration:
- Alkalinity:
- Hardness:
- Salinity:
- TOC:
- Ca/Mg ratio:
- Na/K ratio:
- TSS:
- pH:
- Oxygen content:
- Conductance:
- Holding water:

#### **TEST SYSTEM**

- Test type: (Only if not given in predefined IUCLID field)
- Concentrations:
- Renewal of test solution: (If applicable, specify or give details of flow-through  
system (e.g. flow-rate) and of semistatic system (intervals  
of renewal))
- Exposure vessel type: (e.g. size, headspace, sealed, aeration, lighting, # per  
treatment)
- Number of replicates,  
individuals per replicate:
- Test temperature: (Give measurements of test temperature range; can also be  
included in results table)

Sample Freetext 4\_2-TC

- Dissolved oxygen: (Give measurements in the control and one concentration where effects were observed; can also be included in results table)
- pH: (Give measurements in the control and one concentration where effects were observed; can also be included in results table)
- Adjustment of pH: (specify)
- Intensity of irradiation: (e.g. 30 - 100 lm at water surface)
- Photoperiod: (e.g. 12 h photoperiod daily)
- DURATION OF THE TEST:** (Only applicable, if data given in the predefined IUCLID field need to be supplemented or explained.)
- TEST PARAMETER:** (Indicate test parameter, particularly if deviating from standard test guidelines referred to.)
- SAMPLING:** (Give details on sampling intervals and sample storage before analysis.)
- MONITORING OF TEST SUBSTANCE CONCENTRATION:** (If "yes" has been entered into the predefined field "Analyt. Monitoring", additional explanations on sampling intervals etc. may be given.)

**Freetext type RS - Results**

Describe any other information needed to assess data for reliability and use.

**Subchapter-specific guidance:** include/adapt/delete any of the following items or add items as appropriate:

Sample Freetext 4\_2-RS

**RESULTS: EXPOSED**

- Nominal/measured concentrations: (Give measurements of initial and actual concentrations in mg/l during test, preferably in tabular form. If not measured, describe any observations, such as precipitation that might cause a difference between actual and nominal concentration.)
- Effect data (Immobilisation): (Give number immobilized as compared to the number exposed and percentage of exposed animals; use table if appropriate; report LC0, LC50, and LC100 values for at least 48 and 96 h (including 95 % c.l.)
- Concentration / response curve: (Give concentration response with 95% confidence limits)
- Cumulative immobilisation: (Give number immobilized as compared to the number exposed and percentage of exposed animals; use table if appropriate; report LC0, LC50, and LC100 values for at least 48 and 96 h (including 95 % c.l.)
- Effect concentration vs. test substance solubility: (Discuss if element effect concentration is greater than test substance solubility.)
- Other effects: (Describe abnormal responses and any other relevant observations of exposed and control animals)

**RESULTS CONTROL:**

(Note number/percentage of animals showing adverse effects, preferably in tabular form)

**RESULTS: TEST WITH REFERENCE SUBSTANCE**

(If a test with a reference substance was performed, the following items should be specified, if relevant)

---

Sample Freetext 4\_2-RS

- Concentrations:
- Results: (Give data, e.g. EC50 value for immobilisation)

**Freetext type CL - Conclusion**

See guidance in chapter C.0.2.3.

**Subchapter-specific guidance:** Describe whether validity criteria of the test guidelines followed can be considered fulfilled, e.g. immobilisation of control animals <10%, etc.

See guidance in chapter C.0.3 for setting Flags and C.0.2.3 and for freetext types:

RL Reliability; RM Remarks; AD Attached doc.; RE Reference

C.4.3 Toxicity to Aquatic Plants e.g. Algae



Example screen

Only defined fields displayed (# list field; # non-list field)

**4.3 Toxicity to Aquatic Plants e.g. Algae**

Last Changes: 19-AUG-2000      Order Number: 1      Reliabilities: 3

Species: Chlorella vulgaris

Endpoint: biomass

Unit: mg/l      Exposure Period: 96      hour[s]

|      |   |     |  |    |      |
|------|---|-----|--|----|------|
| NOEC |   |     |  | .. |      |
| LOEC |   |     |  | .. |      |
| EC0  |   |     |  | .. |      |
| EC10 |   |     |  | .. |      |
| EC50 | = | 560 |  | .. | 1000 |
|      |   |     |  | .. |      |
|      |   |     |  | .. |      |

Analyt. Monitoring: no

Method: other: Growth inhibition according to      Year: 1980

GLP: no data      Testsubstance: other TS: Na3 purit



Defined fields

| No. | Field name      | Guidance note  | Freetext |
|-----|-----------------|--|----------|
| 1   | Order Number    | For optional entry (see guidance in chapter C.0.1.3)   |          |
| 2   | Reliabilities   | Select code from picklist (see guidance in chapter C.0.1.3)  | RL       |
| 3   | Species         | Select from picklist, e.g. [Anabaena cylindrica / etc. ]. If [other] is selected, specify  | TC       |
| 4   | Endpoint        | Select test type from picklist: [biomass / growth rate / other]. If [other] is selected, specify, e.g. [other: number of cells/ml]   |          |
| 5   | Unit            | Select from picklist, e.g. [mg/l / µmol/l / etc.]  |          |
| 6   | Exposure Period | Subfield 6a: Enter numerical value of exposure period, e.g. [96] (if given in hours) or [4] (if given in days)<br>Subfield 6b: Select unit of exposure time from picklist: [day / hour(s) / minute(s)] |          |

| No. | Field name                                      | Guidance note  | Freetext  |
|-----|---|--|-----------|
| 7   | NOEC / LOEC / EC0 / EC10 / EC50 / ..... / ..... | Enter effective concentration(s) in respective field(s); use empty text box(es) (7e) for other endpoint type(s).<br>Subfield 7a: Select from picklist if known: [c (calculated) / m (measured)]<br>Subfield 7b: Select from picklist: [< / <= / = / > / >= / ca.]<br>Subfield 7c-d: Enter numerical value(s) of the respective effective concentration(s) or range | <b>RS</b> |
| 8   | Analytical Monitoring                           | Indicate if the test was analytically monitored; select from picklist: [no / no data / yes]  |           |
| 9   | Method  | Select from picklist, e.g. [Directive 87/302/EEC, part C, p. 89 / EPA OPP 122-2 / etc.]. If "other" is selected, specify   | <b>ME</b> |
| 10  | Year  | Enter year of method if known  |           |
| 11  | GLP   | Select from picklist: [no, no data, yes] (see also C.0.1.3)  | <b>ME</b> |
| 12  | Test Substance                                  | Select from picklist: [as prescribed by 1.1 - 1.4 / no data / other TS]. Note any information as freetext (see also C.0.1.3)   | <b>TS</b> |



### Freetext fields

Optional or conditional entry of data in freetext form, in addition to data entered in defined fields:

#### Freetext type **TS** - Test substance

See guidance given in chapter C.0.2.3

**Subchapter-specific guidance:** If appropriate; note any substance-specific properties affecting test performance/applicability of the method: e.g. stability, vapor pressure, water solubility.

#### Freetext type **ME** - Method

Additional information to that entered in defined fields can be given here using subheadings if appropriate. See guidance and sample freetext provided in chapter C.0.2.3.

#### Freetext type **TC** - Test conditions

Describe protocol deviations from test guideline and any other relevant information. If a study was not conducted in accordance with a standard guideline, a full and detailed description of the method used should be included particularly in the case of robust summaries on key studies.

As to the amount of detail to be reported see also guidance given in subchapter C.0.2.3.

**Subchapter-specific guidance:** include/adapt/delete any of the following items or add items as appropriate:

Sample Freetext 4\_3-TC

#### TEST ORGANISMS

- Strain:
- Source/supplier:
- Laboratory culture: (yes/no; specify as appropriate)
- Method of cultivation:
- Pretreatment: (e.g. acclimation period)
- Controls:

- Initial cell concentration:

**STOCK AND TEST SOLUTION AND THEIR PREPARATION**

- Dispersion:
- Vehicle, solvent: (e.g. organic solvents, emulsifiers or dispersants)
- Concentration of vehicle/solvent:
- Other procedures: (e.g. test in completely filled closed vessels for testing volatile test substance)

**STABILITY OF THE TEST CHEMICAL SOLUTIONS:** (Note any relevant observations.)

**REFERENCE SUBSTANCE:** (If relevant, specify reference substance and briefly describe method to analyze reference substance.)

**DILUTION WATER**

- Source:
- Aeration:

**GROWTH/TEST MEDIUM CHEMISTRY**

- Alkalinity:
- Hardness:
- Salinity:
- TOC:
- EDTA:
- TSS:
- pH:
- Dissolved oxygen:

**TEST SYSTEM**

- Test type: (e.g. static or other)
- Concentrations:
- Renewal of test solution: (If applicable, specify or give details of flow-through system (e.g. flow-rate) and of semistatic system (intervals of renewal))
- Exposure vessel type: (e.g. size, headspace, sealed, aeration, lighting, # per treatment)
- Number of replicates:
- Concentrations:
- Test temperature: (Give measurements of test temperature range; can also be included in results table)
- pH: (Give measurements in the control and at least one replicate of each concentration at start and end of test; can also be included in results table)
- Intensity of irradiation: (e.g. 60 - 120  $\mu\text{E}/\text{m}^2 \text{ s}$ )
- Photoperiod: (e.g. 12 h photoperiod daily)

**TEST PARAMETER:** (Indicate test parameter, e.g. cell multiplication inhibition)

Sample Freetext 4\_3-TC

**MONITORING OF TEST  
SUBSTANCE  
CONCENTRATION:**

(If "yes" has been entered into the defined field "Analyt. Monitoring", additional explanations on sampling intervals etc. may be given.)

**Freetext type RS - Results**

Describe any other information needed to assess data for reliability and use.

**Subchapter-specific guidance:** include/adapt/delete any of the following items or add items as appropriate:

Sample Freetext 4\_3-RS

**RESULTS: EXPOSED**

- Nominal/measured concentrations: (Give measurements of initial and actual concentrations in mg/l during test, preferably in tabular form. If not measured, describe any observations, such as precipitation that might cause a difference between actual and nominal concentration.)
- Effect data/Element values: (If not given in defined fields, note element value, e.g. E<sub>r</sub>C<sub>50</sub>, E<sub>r</sub>L<sub>50</sub>, E<sub>b</sub>C<sub>50</sub>, E<sub>b</sub>L<sub>50</sub>, EC<sub>10</sub>-CD, EL<sub>10</sub>-CD, EC<sub>50</sub>-CD, EL<sub>50</sub>-CD, EL<sub>90</sub>-CD, EC<sub>90</sub>-CD, EC<sub>0</sub>, EL<sub>0</sub> at 24, 48, 72 or 96 hours)
- Cell density data: (Report cell density at each flask at each measuring point preferably in tabular form)
- Growth curves: (Report cell density at each flask at each measuring point preferably in tabular form)

**RESULTS CONTROL:**

(Note number/percentage of animals showing adverse effects, preferably in tabular form)

**RESULTS: TEST WITH  
REFERENCE SUBSTANCE**

(If a test with a reference substance was performed, the following items should be specified, if relevant)

- Concentrations:
- Results:

**STATISTICAL RESULTS:**

(Give statistics if not provided for the items above)

**Freetext type CL - Conclusion**

See guidance in chapter C.0.2.3.

**Subchapter-specific guidance:** Describe whether validity criteria of the test guidelines followed can be considered fulfilled, e.g. cell concentration in control cultures increased at least by a factor of 16 within 3 days, etc.

**See guidance in chapter C.0.3 for setting Flags and C.0.2.3 and for freetext types:**

RL Reliability; RM Remarks; AD Attached doc.; RE Reference

**C.4.4 Toxicity to Microorganisms e.g. Bacteria (to be prepared)**

**C.4.5 no IUCLID heading**

C.4.5.1 Chronic Toxicity to Fish



**Example screen**

Only defined fields displayed (# list field; # non-list field)

**4.5.1 Chronic Toxicity to Fish**

Last Changes: 30-AUG-2000      Order Number: 1      Reliabilities: 2

Species: Pimephales promelas

Endpoint: other: survival, growth, spawning activity and egg hatchability

Unit:      Exposure Period: 224      day

LLC:      ..

NOEC:      ..

LOEC:      ..

Analyt. Monitoring: yes

Method: other      Year:     

GLP: no data      Testsubstance: other TS: NaH2O



**Defined fields**

| No. | Field name      | Guidance note  | Freetext |
|-----|-----------------|--|----------|
| 1   | Order Number    | For optional entry (see guidance in chapter C.0.1.3)   |          |
| 2   | Reliabilities   | Select code from picklist (see guidance in chapter C.0.1.3)  | RL       |
| 3   | Species         | Select from picklist, e.g. [Alburnus albidus costa / etc. ]. If [other] is selected, specify   | TC       |
| 4   | Endpoint        | Select test type from picklist: [length of young fish / reproduction rate / weight of young fish / other]. If [other] is selected, specify |          |
| 5   | Unit            | Select from picklist, e.g. [mg/l / µmol/l / etc.]  |          |
| 6   | Exposure Period | Subfield 6a: Enter numerical value of exposure period<br>Subfield 6b: Select unit of exposure time from picklist: [day / month]            |          |

| No. | Field name                  | Guidance note   | Freetext  |
|-----|-----------------------------|---|-----------|
| 7   | LLC / NOEC / LOEC / ..... / | Enter endpoint value(s) in respective field(s); use empty text box (7e) for other endpoint type(s).<br>Subfield 7a: Select from picklist if known: [c (calculated) / m (measured)]<br>Subfield 7b: Select from picklist: [< / <= / = / > / >= / ca.]<br>Subfield 7c-d: Enter numerical value(s) of the respective effective concentration(s) or range | <b>RS</b> |
| 8   | Analytical Monitoring       | Indicate if the test was analytically monitored; select from picklist: [no / no data / yes]   |           |
| 9   | Method                      | Select from picklist, e.g. [OECD Guideline draft / other / etc.]. If "other" is selected, specify, e.g. [other: OECD Guideline 210]   | <b>ME</b> |
| 10  | Year                        | Enter year of method if known   |           |
| 11  | GLP                         | Select from picklist: [no, no data, yes] (see also C.0.1.3)   | <b>ME</b> |
| 12  | Test Substance              | Select from picklist: [as prescribed by 1.1 - 1.4 / no data / other TS]. Note any information as freetext (see also C.0.1.3)  | <b>TS</b> |



### Freetext fields

Optional or conditional entry of data in freetext form, in addition to data entered in defined fields:

#### Freetext type **TS** - Test substance

See guidance given in chapter C.0.2.3

**Subchapter-specific guidance:** If appropriate; note any substance-specific properties affecting test performance/applicability of the method: e.g. stability, vapor pressure, water solubility.

#### Freetext type **ME** - Method

Additional information to that entered in defined fields can be given here using subheadings if appropriate. See guidance and sample freetext provided in chapter C.0.2.3.

#### Freetext type **TC** - Test conditions

Describe protocol deviations from test guideline and any other relevant information. If a study was not conducted in accordance with a standard guideline, a full and detailed description of the method used should be included particularly in the case of robust summaries on key studies.

As to the amount of detail to be reported see also guidance given in subchapter C.0.2.3.

**Subchapter-specific guidance:** include/adapt/delete any of the following items or add items as appropriate:

Sample Freetext 4\_5\_1-TC

#### TEST ORGANISMS

- Strain:
- Supplier:
- Wild caught:
- Post-hatch transfer time:
- Age/size/weight/loading:

Sample Freetext 4\_5\_1-TC

- Feeding: (Kind, amount of feed, time to first feeding, feeding frequency)
- Pretreatment: (e.g. acclimation period; treatment for disease before test)
- Feeding during test:
- Controls:

**STOCK AND TEST SOLUTION AND THEIR PREPARATION**

- Dispersion:
- Vehicle, solvent: (e.g. organic solvents, emulsifiers or dispersants)
- Concentration of vehicle/ solvent:
- Other procedures: (e.g. test in completely filled closed vessels for testing volatile test substance)

**STABILITY OF THE TEST CHEMICAL SOLUTIONS:**

(Note any relevant observations.)

**REFERENCE SUBSTANCE:**

(If relevant, specify reference substance and briefly describe method to analyze reference substance.)

**DILUTION WATER**

- Source:
- Aeration:
- Alkalinity:
- Hardness:
- Salinity:
- TOC:
- TSS:
- pH:
- Oxygen content:
- Conductance:
- Holding water:

**TEST SYSTEM**

- Test type: (Only if not given in defined field)
- Concentrations:
- Dosing rate:
- Renewal of test solution: (Specify or give details of flow-through system (e.g. flow-rate) and of semistatic system (intervals of renewal))
- Exposure vessel type: (e.g. size, headspace, sealed, aeration, lighting, # per treatment)
- Number of replicates, individuals per replicate:
- Test temperature: (Give measurements of test temperature range; can also be included in results table)
- Dissolved oxygen: (Give measurements in the control and at least one concentration where effects were observed; can also be included in results table)

|  |   |
|--|---|
|  | Sample Freetext 4_5_1-TC  |
| - pH:  | (Give measurements in the control and at least one concentration where effects were observed; can also be included in results table)      |
| - Adjustment of pH:                                | (specify)   |
| - Intensity of irradiation:                        | (e.g. 30 - 100 lm at water surface)   |
| - Photoperiod:                                     | (e.g. 12 h photoperiod daily)   |
| <b>DURATION OF THE TEST:</b>                       | (Only applicable, if data given in defined field need to be supplemented or explained.)   |
| <b>ENDPOINTS ASSESSED:</b>                         | (Indicate test parameter if not provided in defined field, e.g. egg hatchability)   |
| <b>SAMPLING:</b>                                   | (Give details on sampling intervals and sample storage before analysis.)  |
| <b>MONITORING OF TEST SUBSTANCE CONCENTRATION:</b> | (If "yes" has been entered into the defined field "Analyt. Monitoring", additional explanations on sampling intervals etc. may be given.) |

**Freetext type RS - Results**

Describe any other information needed to assess data for reliability and use.

**Subchapter-specific guidance:** include/adapt/delete any of the following items or add items as appropriate:

|   |  |
|---|--|
|   | Sample Freetext 4_5_1-RS   |
| <b>RESULTS: RANGE FINDING TEST:</b>                   | (Give concentrations in mg/l and number/percentage of animals showing adverse effects)   |
| <b>RESULTS: EXPOSED</b>                               |  |
| - Nominal/measured concentrations:                    | (Give measurements of initial and actual concentrations during test, preferably in tabular form. If not measured, describe any observations, such as precipitation that might cause a difference between actual and nominal concentration.)  |
| - Effect data:  | (Give the mortality/survival data at embryo, larval and juvenile stages as well as overall mortality/survival; report: <ul style="list-style-type: none"> <li>- time to start of hatching and end of hatching</li> <li>- numbers of larvae hatching each day</li> <li>- length and weight of surviving animals</li> <li>- numbers of deformed larvae</li> <li>- numbers of fish exhibiting abnormal behaviour</li> </ul> Give NOEC and LOEC values (at p = 0.05) for each response assessed) |
| - Concentration / response curve:                     | (If relevant, a graph of the concentration-mortality curve at test termination can be attached. In this case, indicate here: "See Fig. 4_5_1-1 in freetext type Attached document")  |
| - Effect concentration vs. test substance solubility: | (Discuss if element effect concentration is greater than test substance solubility.)   |

Sample Freetext 4\_5\_1-RS

- Other effects: (Describe abnormal responses and any other relevant observations differentiating organisms in tests and controls, e.g. loss of equilibrium, erratic swimming, hyperventilation, lethargy, changes in appearance, incidence and description of morphological abnormalities.)

**RESULTS: CONTROL**

- Number/percentage of animals showing adverse effects: (Give data, preferably in tabular form)
- Nature of adverse effects:

**RESULTS: TEST WITH REFERENCE SUBSTANCE**

(If a test with a reference substance was performed, the following items should be specified, if relevant)

- Concentrations:
- Results:

**STATISTICAL RESULTS:** (Give statistics if not provided for the items above)

**Freetext type CL - Conclusion**

See guidance in chapter C.0.2.3.

**Subchapter-specific guidance:** Describe whether validity criteria of the test guidelines followed can be considered fulfilled, e.g. concentration of dissolved oxygen > 60% saturation (cf. OECD Guideline 210/212), etc.

**See guidance in chapter C.0.3 for setting Flags and C.0.2.3 and for freetext types:**

RL Reliability; RM Remarks; AD Attached doc.; RE Reference

C.4.5.2 Chronic Toxicity to Aquatic Invertebrates (to be prepared)

**C.4.6 no IUCLID heading**

C.4.6.1 Toxicity to Soil Dwelling Organisms (to be prepared)

C.4.6.2 Toxicity to Terrestrial Plants (to be prepared)

C.4.6.3 Toxicity to Other Non-mammalian Terrestrial Species (to be prepared)

**C.4.7 Biological Effects Monitoring (to be prepared)****C.4.8 Biotransformation and Kinetics (to be prepared)****C.4.9 Additional Remarks (to be prepared)**