SAFETY DATA SHEET
ABC-77
According to Regulation (EC) No. 1907/2006 (REACH)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: ABC-77

REACH Registration Number:

<table>
<thead>
<tr>
<th>Registration number</th>
<th>Substance Identification</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXXXXXX-XXXX-0001</td>
<td>TeXXXXXXxe</td>
<td>XXXX-01-XX</td>
</tr>
<tr>
<td>XX-XXXXXX-XX-0000</td>
<td>2-XXX2-XXX</td>
<td>XXX-66-XX</td>
</tr>
</tbody>
</table>

Formula: X_13X_14X_2
Molecular weight: 432.1
Synonyms: CXXXXXXie, Hxxxxxx, XXXXX-1,3,5-XXXX-1,3,5-XXXX

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses:

Main use category: Industrial use
Specific use(s): Further information: see exposure scenarios attached to the safety data sheet.

Uses advised against: No additional information available.

1.3 Details of the supplier of the safety data sheet

Supplier: XXXXX XXXXX Ltd
XXXX, XXXXX XXXX
XXXXXXXX, XXXXXXXXXX
XXXXXXXX, XXXXXXXXX, XXXX XXX
Tel: +XX (0) 99999 999 / 9999
XXXX@XXXX.net

Contact Person: XXXXX XXXX
Manufacturer: XXXXXXX INC [XXXXXXXXXXX]
XXXX XXX XXXXX XXXX
4509 XXXX XXXX XXXX
XXXXXXXX, TN XXXX
XXXXXX@XXXX.com

1.4 Emergency telephone number

Poison Control Centre: +XXXX-XX1-5XX0

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008[CLP]

Flam. Liq. 2 H225
Acute Tox. 4 (Dermal) H312
Acute Tox. 4 (Inhalation) H332
Skin Irrit. 2 H315
Eye Irrit. 2 H319
Skin Sens. 1 H317
Aquatic Chronic 2 H411

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008[CLP]
Hazard pictograms

Signal Word
Danger

Hazard Statements
H225 Highly flammable liquid and vapour.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements
P210 Keep away from heat, hot surfaces, sparks, open flame and other ignition sources. No smoking.
P243 Take precautionary measures against static discharge.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403 + P235 Store in a well-ventilated place. Keep cool.

2.3 Other hazards
Other hazards which do not result in classification
Product does not meet criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No 1907/2006.

SECTION 3: Composition/information on ingredients

3.1 Substances
Not applicable.

3.2 Mixtures

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Product identifier</th>
<th>Percentage (wt/wt)</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>TeXXXXXXXXXe</td>
<td>(CAS No.) XXXX-01-XX (EC No.) XXX-500-XXX (REACH Registration No.) XXXXXXX-XXXX-0001</td>
<td>70</td>
<td>Flam. Liq. 2; H225 Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 3; H412</td>
</tr>
<tr>
<td>2-XXX2-XXX</td>
<td>(CAS No.) XXX-66-XX (EC No.) XX3-090-X (REACH Registration No.) XX-XXXXXX-XX-0000</td>
<td>30</td>
<td>Flam. Liq. 2; H225 Aquatic Acute 2; H401 Skin Sens. 1; H317 Aquatic Chronic 2; H411</td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

4.1 Description of first aid measures

General
Move out of dangerous area. If you feel unwell seek medical advice. Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later. Do not leave the victim unattended.

Inhalation
Call a physician or poison control centre immediately. Move to fresh air. If unconscious place in recovery position and seek medical advice.

Ingestion
Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin contact
Wash skin thoroughly with soap and water and rinse thoroughly or use a recognized skin cleanser. Remove contaminated clothing and shoes. If symptoms occur, get medical attention. Wash clothing before reuse.

Eye contact
Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

General information
Harmful in contact with skin and if inhaled. May cause an allergic skin reaction. Cause irritation in skin and eyes.

Inhalation
Inhalation can cause respiratory irritation.

Ingestion
May be harmful if swallowed and enters airways.

Skin contact
Exposure to skin causes irritation and sensitization.

Eye contact
Direct contact with the eyes is likely irritating.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Dry chemical. Carbon dioxide (CO2). Alcohol-resistant foam.

Unsuitable extinguishing media
High volume water jet.

5.2 Special hazards arising from the substance or mixture

In case of fire may form: Oxides of carbon and sulphur.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary. Do not spray on an open flame or any other incandescent material. Use only explosion-proof equipment. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition.
SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions
Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for personal protective equipment.
See Section 12 for information about ecology.
See Section 13 for waste disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. See Section 8 for personal protective equipment. Smoking, eating and drinking is prohibited in areas where this product is handled, stored and processed. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

7.2 Conditions for safe storage, including any incompatibilities
Prevent unauthorized access. No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

7.3 Specific end use(s)
Further information: see exposure scenarios attached to this safety data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Country</th>
<th>Standard</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany (AGS)</td>
<td>AGW TWA</td>
<td>180 mg/m³ (50 ppm)</td>
</tr>
<tr>
<td>Germany (AGS)</td>
<td>AGW STEL</td>
<td>180 mg/m³ (50 ppm)</td>
</tr>
<tr>
<td>Germany (DFG)</td>
<td>AGW TWA</td>
<td>180 mg/m³ (50 ppm)</td>
</tr>
<tr>
<td>Germany (DFG)</td>
<td>AGW STEL</td>
<td>100 mg/m³ (360 ppm)</td>
</tr>
<tr>
<td>Switzerland</td>
<td>VME</td>
<td>180 mg/m³ (50 ppm)</td>
</tr>
<tr>
<td>Switzerland</td>
<td>VLE</td>
<td>180 mg/m³ (50 ppm)</td>
</tr>
</tbody>
</table>
8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, wear suitable respiratory equipment. If this product contains ingredients with exposure limits, personal monitoring to determine the effectiveness of the ventilation or other control measures and / or the necessity to use respiratory protective equipment required.

Personal Protection equipment


Respiratory protection

Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation at the site to control exposure. In case of insufficient ventilation, wear suitable respiratory equipment. The correct choice of respiratory protection depends upon the chemicals and conditions of work and use, and the condition of the respiratory equipment. Security measures should be developed for every possible application.

Hand protection

Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Please note the information provided by the manufacturer in terms of permeability and breakthrough times and for special workplace conditions (Mechanical strain, contact duration). Please note that the duration of chemical resistant gloves may be considerably shorter than the breakthrough time measured according to EN 374 with daily use because of a large number of external influences (example: Temperature).

Eye protection

Eye wash bottle with pure water. Wear tight-fitting goggles or face shield (according to EN 166). Wear face-shield and protective suit for abnormal processing problems.

Skin and Body Protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

General protective and hygienic measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes wet or contaminated. Isolate contaminated clothing and wash before reuse. No smoking in the workplace.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state: Liquid.
Colour: Colourless.
Odour: Pungent.
Odour threshold: No data available.
### ABC-77

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available.</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>85 °C (185 °F).</td>
</tr>
<tr>
<td>Flash point</td>
<td>&lt; -17,8 °C (&lt; -0,0 °F).</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Upper / lower flammability or explosive limits</td>
<td>No data available.</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>20,00 mbar at 20 °C (68 °F).</td>
</tr>
<tr>
<td>Relative vapour Density (Air = 1)</td>
<td>3,04</td>
</tr>
<tr>
<td>Relative density</td>
<td>0,94 at 15,6 °C (60,1 °F).</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water.</td>
</tr>
<tr>
<td>Partition Coefficient (N-Octanol/Water)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available.</td>
</tr>
<tr>
<td>9.2 Other information</td>
<td></td>
</tr>
<tr>
<td>Percent volatile               &gt;99 %</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity
- No specific reactivity hazards associated with this product.

#### 10.2 Chemical stability
- Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions
- No dangerous reaction known.

#### 10.4 Conditions to avoid
- Keep away from open flames, hot surfaces and sources of ignition.

#### 10.5 Incompatible materials
- Avoid exposure to strong oxidizers.

#### 10.6 Hazardous decomposition products
- Oxides of carbon and sulphur.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

**Acute Toxicity**

- Dermal: Harmful in contact with skin. Inhalation: Harmful if inhaled.

<table>
<thead>
<tr>
<th>ABC-77</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE (oral)</td>
<td>2,600 mg/kg</td>
</tr>
<tr>
<td>ATE(dermal)</td>
<td>1,500 mg/kg</td>
</tr>
<tr>
<td>ATE(inhalation)</td>
<td>15 mg/l</td>
</tr>
</tbody>
</table>

**Skin Corrosion/Irritation**
- May cause skin irritation and/or dermatitis.

**Serious Eye Damage/Irritation**
- May cause eye irritation.

**Respiratory or Skin Sensitization**
- May cause an allergic skin reaction.

**Germ Cell Mutagenicity**
- Not classified.

**Carcinogenicity**
- Not classified.

**Reproductive Toxicity**
- Not classified.

**Specific Target Organ Toxicity (Single Exposure)**
- Not classified.

**Specific Target Organ Toxicity (Repeated)**
- Not classified.
SECTION 12: Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Compound</th>
<th>LC50 fish</th>
<th>EC50 daphnia</th>
<th>EC50 algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>TeXXXXXXXe (XXX-01-XX)</td>
<td>&gt;24 mg/l (Exposure time: 96 h - Species: Danio rerio [Method: OECD Test Guideline 203])</td>
<td>24 mg/l (Exposure time: 48 h - Species: Oncorhynchus mykiss [Method: OECD Test Guideline 202])</td>
<td>153.2 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata [Method: OECD Test Guideline 201])</td>
</tr>
</tbody>
</table>

2-XXX2-XXX (XXX-66-XX)

<table>
<thead>
<tr>
<th>Compound</th>
<th>LC50 fish</th>
<th>EC50 daphnia</th>
<th>EC50 algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-XXX2-XXX (XXX-66-XX)</td>
<td>&gt;34 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [Method: OECD Test Guideline 203])</td>
<td>6.7 mg/l (Exposure time: 48 h - Species: Daphnia magna [Method: OECD Test Guideline 202])</td>
<td>24 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata [Method: OECD Test Guideline 201])</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

This material is not expected to be readily biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation is unlikely.

12.4 Mobility in soil

No additional information available.

12.5 Results of PBT and vPvB assessment

Product does not meet criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No 1907/2006.

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

If possible, arrange for product to be recycled. Abolition of larger amounts via an authorized person / contractor in accordance with local laws and regulations.

Product

Do not discharge into drains, water courses or soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company. Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.
SECTION 14: Transport information

In accordance with ADR/IMDG/IATA/ADN/RID

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>3XX6</td>
<td>3XX6</td>
<td>3XX6</td>
<td>3XX6</td>
</tr>
<tr>
<td>14.2 UN proper shipping name</td>
<td>MXXXX MIXTURE, LIQUID, FLAMMABLE, N.O.S.,</td>
<td>MXXXX MIXTURE, LIQUID, FLAMMABLE, N.O.S.,</td>
<td>MXXXX MIXTURE, LIQUID, FLAMMABLE, N.O.S.,</td>
<td>MXXXX MIXTURE, LIQUID, FLAMMABLE, N.O.S.,</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>II</td>
<td>II</td>
<td>II</td>
<td>II</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>Dangerous for the environment: Yes</td>
<td>Dangerous for the environment: Yes</td>
<td>Dangerous for the environment: Yes</td>
<td>Dangerous for the environment: Yes</td>
</tr>
<tr>
<td>Marine pollutant: Yes</td>
<td>Marine pollutant: Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14.6 Special precautions for user
No additional information available.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Relevant information regarding the European legislation


European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).
Regulation referring to the International Carriage of Dangerous Goods by Rail (RID).

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - Authorisation List
Contains no REACH Annex XIV substances.

Candidate List of substances of very high concern for Authorisation
Contains no substance on the REACH candidate list.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles
Contains no substances with Annex XVII restrictions.

Percent volatile >99%
EU Inventory Listed

15.2 Chemical Safety Assessment
A Chemical Safety Assessment has been carried out for TeXXXXXXXXe (XXXX-01-XX) and 2-XXX2-XXX (XXX-66-XX).

SECTION 16: Other information

Revision Date 11-Jan-2016
Version 1

Abbreviations and acronyms
- Flam. Liq.2: Flammable liquid Category 2
- Acute Tox.4 (Oral): Acute toxicity (Oral) Category 4
- Acute Tox.4 (Dermal): Acute toxicity (Dermal) Category 4
- Acute Tox.4 (Inhalation): Acute Tox.4 (Inhalation) Category 4
- Skin Irrit.2: Skin Irritation Category 2
- Eye Irrit.2: Eye Irritation Category 2
- Skin Sens.1: Skin Sensitization Category 1
- Aquatic Acute 2: Hazardous to aquatic environment - Acute Hazard Category 2
- Aquatic Chronic 2: Hazardous to aquatic environment - Chronic Hazard Category 2
- ATE: Acute Toxicity Estimate

Hazard Statements In Full
H225: Highly flammable liquid and vapour.
H302: Harmful if swallowed.
H312: Harmful in contact with skin.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.
H401: Toxic to aquatic life.
H411: Toxic to aquatic life with long lasting effects.
H412: Harmful to aquatic life with long lasting effects.

Disclaimer
This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.
# ANNEX: EXPOSURE SCENARIO

<table>
<thead>
<tr>
<th>Exposure Scenario(ES) Number</th>
<th>Life cycle stage covered by ES</th>
<th>Sector of Use (SU)</th>
<th>Product Category (PC) or Article category (AC)</th>
<th>Process category (PROC)</th>
<th>Environmental Release Category (ERC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 1 Manufacture</td>
<td>X</td>
<td>SU3: Industrial uses: Uses of substances as such or in preparations at industrial sites SU8: Manufacture of bulk, large scale chemicals (including petroleum products) SU9: Manufacture of fine chemicals</td>
<td>PC 20: Odorant</td>
<td>PROC 1 PROC 3 PROC 8b PROC 15</td>
<td>ERC 1 ERC 4</td>
</tr>
<tr>
<td>ES 2 Distribution</td>
<td>X</td>
<td>SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites</td>
<td>PC11: Odorant</td>
<td>PROC 1 PROC 2 PROC 3 PROC 4</td>
<td>ERC 1 ERC 2</td>
</tr>
</tbody>
</table>

## EXPOSURE SCENARIO 1: MANUFACTURE

### 1. Manufacture

#### Environment Contributing Scenario(s)

- **CS1:** Manufacture of substances  
  ERC 1
- **CS2:** Industrial use of processing aids in processes and products, not becoming part of articles  
  ERC 4

#### Worker Contributing Scenario(s)

- **CS3:** Use in closed process, no likelihood of exposure  
  PROC 1
- **CS4:** Use in closed batch process (synthesis or production)  
  PROC 3
| CS5: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities | PROC 8b |
| CS6: Use as laboratory reagent | PROC 15 |

**Further information**

- Lead substance(s)
  - EC-No. XXX-500-XXX
  - EC-No. XX3-090-X
- Manufacture of the substance or use as an intermediate or process chemical or extraction agent. Includes recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).

## 2. Conditions of use affecting exposure

### CS1: Control of environmental exposure: Manufacture of substances (ERC 1)

<table>
<thead>
<tr>
<th>Product characteristics</th>
<th>Liquid</th>
</tr>
</thead>
</table>

- **Amount used, frequency and duration of use (or from service life)**
  - **Daily use at site**: <= 1 tonnes/day
  - **Annual use at a site**: <= 190 tonnes/year
  - **Percentage of tonnage used at regional scale**: 100%

- **Conditions and measures related to sewage treatment plant**
  - **Flow rate of sewage treatment plant effluent**: 2,000 m³/d

- **Conditions and measures related to treatment of waste**
  - Waste disposal according to national/local legislation is sufficient.

- **Environment factors not influenced by risk management**
  - **Discharge rate of effluent**: 18,000 m³/d
  - **Dilution factor (River)**: 10
  - **Dilution factor (Coastal areas)**: 100

- **Other operational conditions affecting environmental exposure**
  - **Number of emission days per year**: 365
  - **Emission or Release Factor**
    - Water: 0%
    - Soil: 0.01%

- **Technical conditions and Organizational measures**
  - Treat air emission to provide the required removal efficiency of (%): (Effectiveness: > 99.9 %).
  - Wastewater emission controls are not applicable as there is no direct release to wastewater. Prevent environmental discharge consistent with regulatory requirements.

- **Conditions and measures related to external treatment of waste for disposal and recovery**
  - External treatment and disposal of waste should comply with applicable local and/or national regulations. External recovery and recycling of waste should comply with applicable local and/or national regulations.

### CS2: Control of environmental exposure: Industrial use of processing aids in processes and products, not becoming part of articles (ERC 4)

<table>
<thead>
<tr>
<th>Product characteristics</th>
<th>Liquid</th>
</tr>
</thead>
</table>

- **Amount used, frequency and duration of use (or from service life)**
  - **Daily use at site**: <= 1 tonnes/day
  - **Annual use at a site**: <= 190 tonnes/year
  - **Percentage of tonnage used at regional scale**: 100%
### Conditions and measures related to sewage treatment plant

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow rate of sewage treatment plant effluent</td>
<td>2,000 m³/d</td>
</tr>
</tbody>
</table>

### Conditions and measures related to treatment of waste

Waste disposal according to national/local legislation is sufficient.

### Environment factors not influenced by risk management

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge rate of effluent</td>
<td>18,000 m³/d</td>
</tr>
<tr>
<td>Dilution factor (River)</td>
<td>10</td>
</tr>
<tr>
<td>Dilution factor (Coastal areas)</td>
<td>100</td>
</tr>
</tbody>
</table>

### Other operational conditions affecting environmental exposure

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of emission days per year</td>
<td>365</td>
</tr>
<tr>
<td>Emission or Release Factor Water</td>
<td>0%</td>
</tr>
<tr>
<td>Emission or Release Factor Soil</td>
<td>0.01%</td>
</tr>
</tbody>
</table>

### Technical conditions and Organisational measures

Treat air emission to provide the required removal efficiency of (%): (Effectiveness: > 99.9 %). Wastewater emission controls are not applicable as there is no direct release to wastewater. Prevent environmental discharge consistent with regulatory requirements.

### Conditions and measures related to external treatment of waste for disposal and recovery

External treatment and disposal of waste should comply with applicable local and/or national regulations. External recovery and recycling of waste should comply with applicable local and/or national regulations.

### CS3: Control of worker exposure: Use in closed process, no likelihood of exposure (PROC 1)

<table>
<thead>
<tr>
<th>Product characteristics</th>
<th>Liquid, vapour pressure 0.5 - 10 kPa at STP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount used, frequency and duration of use/exposure</td>
<td>Frequency: Covers daily exposures up to 8 hours</td>
</tr>
</tbody>
</table>

### Technical and organisational conditions and measures

Handle substance within a closed system. Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

### Conditions and measures related to personal protection, hygiene and health evaluation

Wear suitable gloves tested to EN374.

### Other conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented. Assumes use at not more than 20°C above ambient temperature, unless stated differently.

### Technical conditions and measures to control dispersal from source towards the worker

General protection measures: Provide sufficient ventilation and/or renewal in the workshops.

### Organisational measures to prevent/limit releases, dispersals, and exposures

Locate bulk storage outdoors. Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent / minimise exposures and to report any skin problems that may develop.

### CS4: Control of worker exposure: Use in closed batch process (synthesis or formulation) (PROC 3)

<table>
<thead>
<tr>
<th>Product characteristics</th>
<th>Liquid, vapour pressure 0.5 - 10 kPa at STP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount used frequency and duration of use/exposure</td>
<td>Frequency: Covers daily exposures up to 8 hours</td>
</tr>
</tbody>
</table>

### Technical and organisational conditions and measures

Handle substance within a closed system. Ensure material transfers are under containment or extract ventilation.

### Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374.

**Other conditions affecting workers’ exposure**

Assumes a good basic standard of occupational hygiene is implemented. Assumes use at not more than 20°C above ambient temperature, unless stated differently.

**Technical conditions and measures to control dispersal from source towards the worker**

General protection measures: Provide sufficient ventilation and/or renewal in the workshops.

**Organisational measures to prevent/limit releases, dispersals, and exposures**

Locate bulk storage outdoors. Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent / minimise exposures and to report any skin problems that may develop.

**CS5: Control of worker exposure: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities (PROC 8b)**

<table>
<thead>
<tr>
<th>Product characteristics</th>
<th>Liquid, vapour pressure 0.5 - 10 kPa at STP</th>
</tr>
</thead>
</table>

**Amount used, frequency and duration of use/exposure**

- **Frequency**: Covers daily exposures up to 8 hours

**Technical and organisational conditions and measures**

Ensure material transfers are under containment or extract ventilation.

**Conditions and measures related to personal protection, hygiene and health evaluation**

Wear suitable gloves tested to EN374.

**Other conditions affecting workers’ exposure**

Assumes a good basic standard of occupational hygiene is implemented. Assumes use at not more than 20°C above ambient temperature, unless stated differently.

**Technical conditions and measures to control dispersal from source towards the worker**

General protection measures: Provide sufficient ventilation and/or renewal in the workshops.

**Organisational measures to prevent/limit releases, dispersals, and exposures**

Locate bulk storage outdoors. Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent / minimise exposures and to report any skin problems that may develop.

**CS6: Control of worker exposure: Use as laboratory reagent (PROC 15)**

<table>
<thead>
<tr>
<th>Product characteristics</th>
<th>Liquid, vapour pressure 0.5 - 10 kPa at STP</th>
</tr>
</thead>
</table>

**Amount used, frequency and duration of use/exposure**

- **Frequency**: Covers daily exposures up to 8 hours

**Technical and organisational conditions and measures**

Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

Wear suitable gloves tested to EN374.

**Other conditions affecting workers’ exposure**

Assumes a good basic standard of occupational hygiene is implemented. Assumes use at not more than 20°C above ambient temperature, unless stated differently.

**Technical conditions and measures to control dispersal from source towards the worker**

General protection measures: Provide sufficient ventilation and/or renewal in the workshops.

**Organisational measures to prevent/limit releases, dispersals, and exposures**

Locate bulk storage outdoors. Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent / minimise exposures and to report any skin problems that may develop.

**3. Exposure estimation and reference to its source**
Environment
The environmental exposure estimation was calculated using the EUSES software.

Control of environmental exposure

**ERC 1:** Manufacture of substances

**ERC 4:** Industrial use of processing aids in processes and products, not becoming part of articles

<table>
<thead>
<tr>
<th>Contributing scenario</th>
<th>Environment exposure</th>
<th>Exposure level</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERC 1, ERC 4</td>
<td>Freshwater</td>
<td>0,413 ng/L</td>
<td>0,000062</td>
</tr>
<tr>
<td>ERC 1, ERC 4</td>
<td>Marine water</td>
<td>0,0348 ng/L</td>
<td>0,000052</td>
</tr>
<tr>
<td>ERC 1, ERC 4</td>
<td>Freshwater sediment</td>
<td>1,7 ng/kg</td>
<td>0,000146</td>
</tr>
<tr>
<td>ERC 1, ERC 4</td>
<td>Marine sediment</td>
<td>0,143 ng/kg</td>
<td>0,000123</td>
</tr>
<tr>
<td>ERC 1, ERC 4</td>
<td>Soil</td>
<td>0,514 ng/kg</td>
<td>0,000074</td>
</tr>
</tbody>
</table>

Workers
The worker exposure estimate was calculated using ECETOC TRA Modified software.

Control of worker exposure

**PROC1:** Use in closed process, no likelihood of exposure

**CS15:** General exposures (closed systems)

**CS54:** Continuous process

**CS57:** No sampling

**CS67:** Storage

**PROC3:** Use in closed batch process (synthesis or formulation)

**CS15:** General exposures (closed systems)

**CS2:** Process sampling

**CS55:** Batch process

**PROC8b:** Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities

**CS14:** Bulk transfers

**CS2:** Process sampling

**PROC15:** Use as laboratory reagent

**CS36:** Laboratory activities

<table>
<thead>
<tr>
<th>Contributing scenario</th>
<th>Worker exposure</th>
<th>Exposure level</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROC1, CS15, CS54, CS57</td>
<td>Inhalation - Long-term Systemic</td>
<td>0,01 ppm</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Dermal - Long-term Systemic</td>
<td>0,03 mg/kg/d</td>
<td>0</td>
</tr>
<tr>
<td>PROC1, CS67</td>
<td>Inhalation - Long-term Systemic</td>
<td>7 ppm</td>
<td>0,1</td>
</tr>
<tr>
<td></td>
<td>Dermal - Long-term Systemic</td>
<td>0,03 mg/kg/d</td>
<td>0,0</td>
</tr>
<tr>
<td>PROC3, CS15, CS2, CS55</td>
<td>Inhalation - Long-term Systemic</td>
<td>2,5 ppm</td>
<td>0,1</td>
</tr>
<tr>
<td></td>
<td>Dermal - Long-term Systemic</td>
<td>0,034 mg/kg/d</td>
<td>0,0</td>
</tr>
<tr>
<td>PROC8b, CS14, CS2</td>
<td>Inhalation - Long-term Systemic</td>
<td>5 ppm</td>
<td>0,1</td>
</tr>
<tr>
<td></td>
<td>Dermal - Long-term Systemic</td>
<td>0,686 mg/kg/d</td>
<td>0,1</td>
</tr>
</tbody>
</table>
PROC15, CS36  | Inhalation - Long-term Systemic | 1 ppm | 0,0
| Dermal - Long-term Systemic | 0,034 mg/kg/d | 0,0

4. Guidance to downstream user to evaluate whether he works inside the boundaries set by the exposure scenario

- Confirm that RMMs and OCs are as described or of equivalent efficiency.
- RMMs and OCs are described in adequate documentation at site level and efficiency is checked on a regular basis.
- When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted PNECs and the resulting risk characterization ratios are expected to be less than 1.

EXPOSURE SCENARIO 2: DISTRIBUTION

1. Distribution

Environment Contributing Scenario(s)
- CS1: Manufacture of substances (ERC 1)
- CS2: Formulation of preparations (ERC 2)

Worker Contributing Scenario(s)
- CS3: Use in closed process, no likelihood of exposure (PROC 1)
- CS4: Use in closed, continuous process with occasional controlled exposure (PROC 2)
- CS5: Use in closed batch process (synthesis or formulation) (PROC 3)
- CS6: Use in batch and other process (synthesis) where opportunity for exposure arises (PROC 4)

Further information
- Lead substance(s)
- EC-No. XXX-500-XXX
- EC-No. XX3-090-X
- Distribution of Substance: loading (including marine vessel/barge, rail/road car IBC loading), and repacking including drums and small packs of substance, including its distribution and associated laboratory activities.

2. Conditions of use affecting exposure

CS1: Control of environmental exposure: Manufacture of substances (ERC 1)

<table>
<thead>
<tr>
<th>Product characteristics</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount used, frequency and duration of use (or from service life)</td>
<td></td>
</tr>
<tr>
<td>Daily use at site</td>
<td>&lt;= 1.25 tonnes/day</td>
</tr>
<tr>
<td>Annual use at a site</td>
<td>&lt;= 25 tonnes/year</td>
</tr>
<tr>
<td>Percentage of tonnage used at regional scale</td>
<td>100 %</td>
</tr>
</tbody>
</table>
### Conditions and measures related to sewage treatment plant
- **Flow rate of sewage treatment plant effluent**: 2,000 m$^3$/d

### Conditions and measures related to treatment of waste
- **Waste disposal according to national/local legislation is sufficient.**

### Environment factors not influenced by risk management
- **Discharge rate of effluent**: 18,000 m$^3$/d
- **Dilution factor (River)**: 10
- **Dilution factor (Coastal areas)**: 100

### Other conditions affecting environmental exposure
- **Number of emission days per year**: 300
- **Emission or Release Factor (Air)**: 0,01%
- **Emission or Release Factor (Water)**: 0,001%
- **Emission or Release Factor (Soil)**: 0,001%

### Technical conditions and Organisational measures
- **Treat air emission to provide the required removal efficiency of (%)**: (Effectiveness: > 99,9 %).
- **Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of ≥ (%)**: (Effectiveness: 99,9 %).

### Conditions and measures related to external treatment of waste for disposal and recovery
- **External treatment and disposal of waste should comply with applicable local and/or national regulations.**
- **External recovery and recycling of waste should comply with applicable local and/or national regulations.**

### CS2: Control of environmental exposure: Formulation of preparations (ERC 2)

#### Product characteristics
- **Liquid**

#### Amount used, frequency and duration of use (or from service life)
- **Daily use at site**: <= 1.25 tonnes/day
- **Annual use at a site**: <= 25 tonnes/year
- **Percentage of tonnage used at regional scale**: 100 %

### Conditions and measures related to sewage treatment plant
- **Flow rate of sewage treatment plant effluent**: 2,000 m$^3$/d

### Conditions and measures related to treatment of waste
- **Waste disposal according to national/local legislation is sufficient.**

### Environment factors not influenced by risk management
- **Discharge rate of effluent**: 18,000 m$^3$/d
- **Dilution factor (River)**: 10
- **Dilution factor (Coastal areas)**: 100

### Other conditions affecting environmental exposure
- **Number of emission days per year**: 300
- **Emission or Release Factor (Air)**: 0,01%
- **Emission or Release Factor (Water)**: 0,001%
- **Emission or Release Factor (Soil)**: 0,001%

### Technical conditions and Organisational measures
- **Treat air emission to provide the required removal efficiency of (%)**: (Effectiveness: > 99,9 %).
- **Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of ≥ (%)**: (Effectiveness: 99,9 %).

### Conditions and measures related to external treatment of waste for disposal and recovery
- **External treatment and disposal of waste should comply with applicable local and/or national regulations.**
- **External recovery and recycling of waste should comply with applicable local and/or national regulations.**

### CS3: Control of worker exposure: Use in closed process, no likelihood of exposure
### Product characteristics
| Liquid, vapour pressure 0.5 - 10 kPa at STP |

### Amount used, frequency and duration of use/exposure
| Frequency | Covers daily exposures up to 8 hours |

### Technical and organisational conditions and measures
- Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Handle substance within a closed system.
- **Conditions and measures related to personal protection, hygiene and health evaluation**
  - Wear suitable gloves tested to EN374.
- **Other conditions affecting workers exposure**
  - Assumes a good basic standard of occupational hygiene is implemented. Assumes use at not more than 20°C above ambient temperature, unless stated differently.

### Technical and measures to control dispersal from source towards the worker
- General protection measures: Provide sufficient ventilation and/or renewal in the workshops.
- **Organisational measures to prevent/limit releases, dispersals, and exposures**
  - Locate bulk storage outdoors. Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent / minimise exposures and to report any skin problems that may develop.

### CS4: Control of worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC 2)
| Liquid, vapour pressure 0.5 - 10 kPa at STP |

### Amount used, frequency and duration of use/exposure
| Frequency | Covers daily exposures up to 8 hours |

### Technical and organisational conditions and measures
- Handle substance within a closed system. Ensure operation is undertaken outdoors. Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
- **Conditions and measures related to personal protection, hygiene and health evaluation**
  - Wear suitable gloves tested to EN374.
- **Other conditions affecting workers exposure**
  - Assumes a good basic standard of occupational hygiene is implemented. Assumes use at not more than 20°C above ambient temperature, unless stated differently.

### Technical and measures to control dispersal from source towards the worker
- General protection measures: Provide sufficient ventilation and/or renewal in the workshops.
- **Organisational measures to prevent/limit releases, dispersals, and exposures**
  - Locate bulk storage outdoors. Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent / minimise exposures and to report any skin problems that may develop.

### CS5: Control of worker exposure: Use in closed batch process (synthesis or formulation) (PROC 3)
| Liquid, vapour pressure 0.5 - 10 kPa at STP |

### Amount used, frequency and duration of use/exposure
| Frequency | Covers daily exposures up to 8 hours |

### Technical and organisational conditions and measures
- Handle substance within a closed system. Ensure material transfers are under containment or extract ventilation.
- **Conditions and measures related to personal protection, hygiene and health evaluation**
  - Wear suitable gloves tested to EN374.
Other conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented, Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Technical conditions and measures to control dispersal from source towards the worker

General protection measures: Provide sufficient ventilation and/or renewal in the workshops.

Organisational measures to prevent/limit releases, dispersals, and exposures

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent / minimise exposures and to report any skin problems that may develop.

CS6: Control of worker exposure: Use in batch and other process (synthesis) where opportunity for exposure arises (PROC 4)

<table>
<thead>
<tr>
<th>Product characteristics</th>
<th>Liquid, vapour pressure 0.5 - 10 kPa at STP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount used, frequency and duration of use/exposure</td>
<td>Covers daily exposures up to 8 hours</td>
</tr>
</tbody>
</table>

Technical and organisational conditions and measures

Ensure material transfers are under containment or extract ventilation.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear suitable gloves tested to EN374.

Other conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented. Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Technical conditions and measures to control dispersal from source towards the worker

General protection measures: Provide sufficient ventilation and/or renewal in the workshops.

Organisational measures to prevent/limit releases, dispersals, and exposures

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent / minimise exposures and to report any skin problems that may develop.

3. Exposure estimation and reference to its source

Environment

The environmental exposure estimation was calculated using the EUSES software.

Control of environmental exposure

ERC 1: Manufacture of substances
ERC 2: Formulation of preparations

<table>
<thead>
<tr>
<th>Contributing scenario</th>
<th>Environment exposure</th>
<th>Exposure level</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERC 1, ERC 2</td>
<td>Freshwater</td>
<td>0,107 ng/L</td>
<td>0,016</td>
</tr>
<tr>
<td>ERC 1, ERC 2</td>
<td>Marine water</td>
<td>0,10 ng/L</td>
<td>0,149</td>
</tr>
<tr>
<td>ERC 1, ERC 2</td>
<td>Freshwater sediment</td>
<td>0,124 ng/kg</td>
<td>0,0379</td>
</tr>
<tr>
<td>ERC 1, ERC 2</td>
<td>Marine sediment</td>
<td>0,133 ng/kg</td>
<td>0,354</td>
</tr>
<tr>
<td>ERC 1, ERC 2</td>
<td>Soil</td>
<td>1,61 ng/kg</td>
<td>0,236</td>
</tr>
</tbody>
</table>

Workers

The worker exposure estimate was calculated using ECETOC TRA Modified software.

Control of worker exposure

PROC1: Use in closed process, no likelihood of exposure
CS15: General exposures (closed systems)
CS54: Continuous process
**ABC-77**

<table>
<thead>
<tr>
<th>Contributing scenario</th>
<th>Worker exposure</th>
<th>Exposure level</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROC1, CS15, CS54, CS57</td>
<td>Inhalation - Long-term Systemic</td>
<td>0,01 ppm</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Dermal - Long-term Systemic</td>
<td>0,03 mg/kg/d</td>
<td>0</td>
</tr>
<tr>
<td>PROC1, CS67</td>
<td>Inhalation - Long-term Systemic</td>
<td>7 ppm</td>
<td>0,1</td>
</tr>
<tr>
<td></td>
<td>Dermal - Long-term Systemic</td>
<td>1,37 mg/kg/d</td>
<td>0,2</td>
</tr>
<tr>
<td>PROC2, CS15, CS54, CS56, CS67</td>
<td>Inhalation - Long-term Systemic</td>
<td>7 ppm</td>
<td>0,1</td>
</tr>
<tr>
<td></td>
<td>Dermal - Long-term Systemic</td>
<td>1,37 mg/kg/d</td>
<td>0,2</td>
</tr>
<tr>
<td>PROC3, CS2, CS15, CS55</td>
<td>Inhalation - Long-term Systemic</td>
<td>2,5 ppm</td>
<td>0,1</td>
</tr>
<tr>
<td></td>
<td>Dermal - Long-term Systemic</td>
<td>0,034 mg/kg/d</td>
<td>0,0</td>
</tr>
<tr>
<td>PROC4, CS16</td>
<td>Inhalation - Long-term Systemic</td>
<td>2 ppm</td>
<td>0,0</td>
</tr>
<tr>
<td></td>
<td>Dermal - Long-term Systemic</td>
<td>0,686 mg/kg/d</td>
<td>0,1</td>
</tr>
</tbody>
</table>

4. **Guidance to downstream user to evaluate whether he works inside the boundaries set by the exposure scenario**

- Confirm that RMMs and OCs are as described or of equivalent efficiency.
- RMMs and OCs are described in adequate documentation at site level and efficiency is checked on a regular basis.
- When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted PNECs and the resulting risk characterization ratios are expected to be less than 1.