Revision: 02.06.2021



# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

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

- · 1.1 Product identifier
- · Trade name: Zinc, standard solution 1000 mg/l Zn for AA (zinc nitrate in nitric acid 0,5 mol/l)
- · Article number: Cl0126
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
  No further relevant information available.
- · Application of the substance / the preparation: Laboratory reagent
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Scharlab, S.L.

C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa 08181 Sentmenat (Barcelona) SPAIN

Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65

email: scharlab@scharlab.com Internet Web Site: www.scharlab.com

· Regional representation:

Scharlab, S.L.

C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa 08181 Sentmenat (Barcelona) SPAIN

Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65

email: scharlab@scharlab.com Internet Web Site: www.scharlab.com

- Further information obtainable from: technical department
- · 1.4 Emergency telephone number:

Toxicological Information National Institute of Toxicology and Forensic Sciences: + 34 91 562 04 20. The information will be provided (24h/365 days)

Please contact the regional Scharlab distributor/dealer in your country During normal opening times: Scharlab, S.L. (+34) 93 715 18 11

#### **SECTION 2: Hazards identification**

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

- · 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



GHS05

· Signal word Danger

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Trade name: Zinc, standard solution 1000 mg/l Zn for AA (zinc nitrate in nitric acid 0,5 mol/l)

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· Hazard-determining components of labelling:

nitric acid

· Hazard statements

H315 Causes skin irritation.

H318 Causes serious eye damage.

· Precautionary statements

P280 Wear protective gloves / eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see on this label).

P362+P364 Take off contaminated clothing and wash it before reuse. P332+P313 If skin irritation occurs: Get medical advice/attention.

2.3 Other hazards

· Results of PBT and vPvB assessment

PBT: Not applicable.vPvB: Not applicable.

### **SECTION 3: Composition/information on ingredients**

· 3.2 Chemical characterisation: Mixtures

· Description: Aqueous solution

Dangerous components:

CAS: 7697-37-2 nitric acid 1-5%

Reg.nr.: 01-2119487297-23-

XXXX

· Additional information: For the wording of the listed hazard phrases refer to section 16.

## **SECTION 4: First aid measures**

- · 4.1 Description of first aid measures
- · After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eve contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

## **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· 5.2 Special hazards arising from the substance or mixture

No further relevant information available.

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Trade name: Zinc, standard solution 1000 mg/l Zn for AA (zinc nitrate in nitric acid 0,5 mol/l)

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- · 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

### **SECTION 6: Accidental release measures**

- · 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- · 6.2 Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## **SECTION 7: Handling and storage**

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep container tightly sealed.
- · 7.3 Specific end use(s) No further relevant information available.

### **SECTION 8: Exposure controls/personal protection**

- · 8.1 Control parameters
- · Additional information about design of technical facilities: No further data; see item 7.
- · Ingredients with limit values that require monitoring at the workplace:

### 7697-37-2 nitric acid

WEL Short-term value: 2.6 mg/m³, 1 ppm

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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Trade name: Zinc, standard solution 1000 mg/l Zn for AA (zinc nitrate in nitric acid 0,5 mol/l)

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#### · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

#### · Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles

### **SECTION 9: Physical and chemical properties**

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form:
Colour:
Colour:
Colour:
Colourless
Odour:
Not determined.

pH-value:
Not determined.

· Change in condition

Melting point/freezing point: 0 °C Initial boiling point and boiling range: 100 °C

Flash point: Not applicable.
Flammability (solid, gas): Not applicable.
Decomposition temperature: Not determined.

Auto-ignition temperature: Product is not selfigniting.

· Explosive properties: Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined. Not determined.

Vapour pressure at 20 °C:
 Density at 20 °C:
 1 g/cm³
 Net date

Relative densityVapour densityNot determined.Not determined.

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Trade name: Zinc, standard solution 1000 mg/l Zn for AA (zinc nitrate in nitric acid 0,5 mol/l)

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· Evaporation rate Not determined.

· Solubility in / Miscibility with

water: Fully miscible.Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

Dynamic: Not determined. Kinematic: Not determined.

· Solvent content:

 Water:
 96.5 %

 Solids content:
 0.4 %

• 9.2 Other information No further relevant information available.

## **SECTION 10: Stability and reactivity**

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

## **SECTION 11: Toxicological information**

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.
- Primary irritant effect:
- · Skin corrosion/irritation

Causes skin irritation.

· Serious eye damage/irritation

Causes serious eye damage.

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Additional toxicological information:
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

## **SECTION 12: Ecological information**

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.

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Trade name: Zinc, standard solution 1000 mg/l Zn for AA (zinc nitrate in nitric acid 0,5 mol/l)

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- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

## **SECTION 13: Disposal considerations**

- · 13.1 Waste treatment methods
- Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

## **SECTION 14: Transport information**

· 14.1 UN-Number

· **ADR, IMDG, IATA** UN3264

· 14.2 UN proper shipping name

· ADR 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC,

N.O.S. (NITRIC ACID, ZINC NITRATE)

· IMDG, IATA CORROSIVE LIQUID, ACIDIC, INORGANIC,

N.O.S. (NITRIC ACID, ZINC NITRATE)

· 14.3 Transport hazard class(es)

· ADR, IMDG, IATA



Class
 8 Corrosive substances.

· Label

· 14.4 Packing group

· ADR, IMDG, IATA

· 14.5 Environmental hazards:

Marine pollutant: No

14.6 Special precautions for user Warning: Corrosive substances.

Hazard identification number (Kemler code): 80
 EMS Number: F-A,S-B
 Sogregation groups

Segregation groups AcidsStowage Category A

Stowage Code SW2 Clear of living quarters.

· 14.7 Transport in bulk according to Annex II

of Marpol and the IBC Code Not applicable.

· Transport/Additional information:

· ADR

· Limited quantities (LQ) 5L

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Trade name: Zinc, standard solution 1000 mg/l Zn for AA (zinc nitrate in nitric acid 0,5 mol/l)

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· Transport category

· Tunnel restriction code

· UN "Model Regulation":

3 E

UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID, ZINC NITRATE), 8, III

## **SECTION 15: Regulatory information**

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II

None of the ingredients is listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

### **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H272 May intensify fire; oxidiser.

H314 Causes severe skin burns and eye damage.

· Classification according to Regulation (EC) No 1272/2008

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

- · Department issuing SDS: product safety department
- · Contact: msds@scharlab.com
- · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Ox. Liq. 2: Oxidizing liquids – Category 2

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Irrit. 2: Skin corrosion/irritation - Category 2

Eye Dam. 1: Serious eye damage/eye irritation - Category 1

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Trade name: Zinc, standard solution 1000 mg/l Zn for AA (zinc nitrate in nitric acid 0,5 mol/l)

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### **Annex: Exposure scenario 1**

#### · 1 - Short title of the exposure scenario

Exposure scenario: Nitric acid 65%

Industrial use

· Sector of Use

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

- Product category PC21 Laboratory chemicals
- · Process category PROC15 Use as laboratory reagent
- · Environmental release category

ERC2 Formulation into mixture

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

- · 2 Conditions of use
- Duration and frequency 8hrs (full working shift).
- · Physical parameters

The data on the physical - chemical properties in the Exposure Scenario is based on the properties of the preparation.

- · Physical state Fluid
- Concentration of the substance in the mixture The substance is main component.
- Other operational conditions Observe the general safety regulations when handling chemicals.
- Other operational conditions affecting environmental exposure No special measures required.
- · Other operational conditions affecting worker exposure

Avoid contact with eyes.

Avoid contact with the skin.

Keep away from combustible material.

- Other operational conditions affecting consumer exposure No special measures required.
- Other operational conditions affecting consumer exposure during the use of the product
  The consumer has to be advised of warnings regarding overdosage in the instructions for use.

The directions for use must indicate the limits for proper use.

- · Risk management measures
- · Worker protection
- · Organisational protective measures

Surround with a dyke storage facilities to prevent contamination of soil and water in case of spillage Handle in a fume cupboard or under extract ventilation

Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.

Provide a good standard of controlled ventilation (10 to 15 air changes per hour)

Keep away from food, beverages and animal feed.

Provide Internal Plant Instruction.

#### · Technical protective measures

Ensure that suitable extractors are available on processing machines

Use only in well ventilated areas.

Store in cool, dry place in tightly closed receptacles.

Only handle and refill product in closed systems.

Carry out filling operations only at sites with extractors available.

#### · Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes.

Tightly sealed goggles

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the (Contd. on page 9)



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Trade name: Zinc, standard solution 1000 mg/l Zn for AA (zinc nitrate in nitric acid 0,5 mol/l)

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degradation

Wear suitable gloves (tested to EN374)

If ventilation is inadequate, use respirator that will protect against dust/mist. Filter P2SL (EN 143, 140), acid gas filter (Type E). Self-contained respirator (DIN EN 133).

Detailed measures on hand protection according to Safety Data Sheet, section 8.

- · Measures for consumer protection Ensure adequate labelling.
- · Environmental protection measures
- · Air No special measures required.
- · Water

Generally, prior to the introduction of wastewater into wastewater treatment plants a neutralisation is required.

Do not allow to reach ground water, water bodies or sewage system, not even in small quantities. Do not allow to reach sewage system.

· Soil No special measures required.

#### Disposal measures

Disposal must be made according to official regulations.

Ensure that waste is collected and contained.

### · Disposal procedures

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

### · Waste type

Partially emptied and uncleaned packaging

Aqueous solution

Uncleaned packaging

#### · 3 - Exposure estimation

The MEASE tool has been used to estimate workplace exposures unless otherwise indicated.

#### · Worker (oral)

No significant oral exposure

The calculated value is smaller than the DNEL.

#### · Worker (dermal)

No significant dermal exposure

The calculated value is smaller than the DNEL.

· Worker (inhalation) The calculated value is smaller than the DNEL.

### Environment

Detailed information on the estimation of the environmental exposure can be found at http://ecb.jrc.ec.europa.eu/euses/.

#### · 4 - Guidance for downstream users

Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.

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Trade name: Zinc, standard solution 1000 mg/l Zn for AA (zinc nitrate in nitric acid 0,5 mol/l)

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### **Annex: Exposure scenario 2**

### · 1 - Short title of the exposure scenario

Exposure scenario: Nitric acid 65%

Laboratory use

· Sector of Use

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

- Product category PC21 Laboratory chemicals
- Process category PROC15 Use as laboratory reagent
- · Environmental release category

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)

ERC8e Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)

- · 2 Conditions of use
- · Duration and frequency 8hrs (full working shift).
- · Physical parameters

The data on the physical - chemical properties in the Exposure Scenario is based on the properties of the preparation.

- · Physical state Fluid
- · Concentration of the substance in the mixture The substance is main component.
- · Other operational conditions Observe the general safety regulations when handling chemicals.
- Other operational conditions affecting environmental exposure No special measures required.
- · Other operational conditions affecting worker exposure

Avoid contact with eyes.

Avoid contact with the skin.

Keep away from combustible material.

- Other operational conditions affecting consumer exposure No special measures required.
- Other operational conditions affecting consumer exposure during the use of the product The consumer has to be advised of warnings regarding overdosage in the instructions for use. The directions for use must indicate the limits for proper use.
- · Risk management measures
- · Worker protection
- · Organisational protective measures

Surround with a dyke storage facilities to prevent contamination of soil and water in case of spillage Handle in a fume cupboard or under extract ventilation

Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.

Provide a good standard of controlled ventilation (10 to 15 air changes per hour)

Keep away from food, beverages and animal feed.

Provide Internal Plant Instruction.

### · Technical protective measures

Ensure that suitable extractors are available on processing machines

Use only in well ventilated areas.

Store in cool, dry place in tightly closed receptacles.

Only handle and refill product in closed systems.

Carry out filling operations only at sites with extractors available.

#### · Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes.

Tightly sealed goggles

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the (Contd. on page 11)



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Trade name: Zinc, standard solution 1000 mg/l Zn for AA (zinc nitrate in nitric acid 0,5 mol/l)

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preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Wear suitable gloves (tested to EN374)

If ventilation is inadequate, use respirator that will protect against dust/mist. Filter P2SL (EN 143, 140), acid gas filter (Type E). Self-contained respirator (DIN EN 133).

Detailed measures on hand protection according to Safety Data Sheet, section 8.

- · Measures for consumer protection Ensure adequate labelling.
- · Environmental protection measures
- Air No special measures required.
- · Water

Generally, prior to the introduction of wastewater into wastewater treatment plants a neutralisation is required.

Do not allow to reach ground water, water bodies or sewage system, not even in small quantities.

Do not allow to reach sewage system.

- · Soil No special measures required.
- · Disposal measures

Disposal must be made according to official regulations.

Ensure that waste is collected and contained.

· Disposal procedures

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· Waste type

Partially emptied and uncleaned packaging

Aqueous solution

Uncleaned packaging

· 3 - Exposure estimation

The MEASE tool has been used to estimate workplace exposures unless otherwise indicated.

· Worker (oral)

No significant oral exposure

The calculated value is smaller than the DNEL.

· Worker (dermal)

No significant dermal exposure

The calculated value is smaller than the DNEL.

- · Worker (inhalation) The calculated value is smaller than the DNEL.
- · Environment

Detailed information on the estimation of the environmental exposure can be found at http://ecb.jrc.ec.europa.eu/euses/.

· 4 - Guidance for downstream users

Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.