

Printing date 09.06.2022 Version number 7.0 Revision: 09.06.2022

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

- · 1.1 Product identifier
- · Trade name: Ammonia, solution 25% w/w, for analysis, ExpertQ®, Reag. Ph Eur, ISO
- · Article number: AM0249
- · Registration number

A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

- 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.

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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

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



STOT SE 3

H335 May cause respiratory irritation.

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- · 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 GHS07 GHS09

- · Signal word Danger
- Hazard-determining components of labelling: ammonia
- · Hazard statements

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

Precautionary statements

P260 Do not breathe dusts or mists.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin

with water [or 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.

P310 Immediately call a POISON CENTER/doctor.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/

international regulations.

- · 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: 1336-21-6 ammonia

Reg.nr.: 02-2119752451-43-

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
- · General information: Immediately remove any clothing soiled by the product.
- · 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 eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.

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25%



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· 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.
- 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
- Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system. 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). Use neutralising agent.

Dispose contaminated material as waste according to item 13.

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.

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· Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · 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.

· 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:
Odour:
Odour threshold:
Fluid
Colourless
Pungent
Not determined.

PH-value:
Not determined.

· Change in condition

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

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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:
Relative density
Vapour density
Evaporation rate
500 hPa
0.9 g/cm³
Not determined.
Not determined.
Not determined.
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:
 75.0 %

 Solids content:
 25.0 %

• **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity In contact with acids liberates toxic gases.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:

Stable at environment temperature.

No decomposition if used according to specifications.

· 10.3 Possibility of hazardous reactions

Exothermic reaction with acids. Corrodes copper and brass.

- · 10.4 Conditions to avoid Heat
- 10.5 Incompatible materials:

Strong acids

Aluminium

Zinc

Potassium

· 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.

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- · Primary irritant effect:
- Skin corrosion/irritation

Causes severe skin burns and eye damage.

· 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

Target organs: Respiratory system.

- May cause respiratory irritation.
- · 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:

Toxicity to fish

LC50 - Oncorhynchus mykiss (rainbow trout) - 0.89 mg/L - 96 h

Toxicity to daphnia and other aquatic invertebrates

LC50 - Daphnia magna (large sea flea) - 101 mg/L - 48 h

Toxicity to algae

EC50 - Chlorella vulgaris (fresh water algae) - 2700 mg/l - 18 dias

Cronic toxicology:

NOEC - Ictalurus punctatus (channel catfish) - 0.06 mg/L - 27 days (OPPTS)

NOEC - Daphnia magna (large sea flea) - 0.79 mg/L - 21 days (Semistatic trial)

12.2 Persistence and degradability

Easily biodegradable

It can be oxidized to nitrate by microorganisms, but it can also be reduced to nitrogen.

- · 12.3 Bioaccumulative potential Does not accumulate in organisms
- · 12.4 Mobility in soil

Absorbed by the soil.

This product is mobile in the aquatic environment.

- · Ecotoxical effects:
- · Remark: Very toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

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

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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.

UN2672

HAZARDOUS

AMMONIA SOLUTION

- · 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
- · 14.2 UN proper shipping name
- · ADR
- · IMDG
- · IATA
- · 14.3 Transport hazard class(es)
- · ADR, IMDG





· Class 8 Corrosive substances.

· Label

· IATA



· Class 8 Corrosive substances.

Label

· 14.4 Packing group · ADR, IMDG, IATA

· 14.5 Environmental hazards:

· Marine pollutant:

Symbol (fish and tree)
Special marking (ADR):
Symbol (fish and tree)

14.6 Special precautions for user Warning: Corrosive substances.

Segregation groups Alkalis Stowage Category A

Stowage Code SW2 Clear of living quarters.

SW3 Shall be transported under temperature

2672 AMMONIA SOLUTION, ENVIRONMENTALLY

AMMONIA SOLUTION, MARINE POLLUTANT

control.

Segregation Code
 SG35 Stow "separated from" SGG1-acids

14.7 Transport in bulk according to Annex II

of Marpol and the IBC Code Not applicable.

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· Transport/Additional information:

· ADR

Limited quantities (LQ)
Transport category
Tunnel restriction code

· UN "Model Regulation": UN 2672 AMMONIA SOLUTION, 8, III,

ENVIRONMENTALLY HAZARDOUS

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.
- · Seveso category E1 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- · 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

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

· 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

Skin Corr. 1B: Skin corrosion/irritation - Category 1B

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

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1



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Annex: Exposure scenario 1

- · 1 Short title of the exposure scenario Industrial use
- · Sector of Use

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

- · Process category PROC15 Use as laboratory reagent
- · Environmental release category

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

- Description of the activities / processes covered in the Exposure Scenario
 See section 1 of the annex to the Safety Data Sheet.
- · 2 Conditions of use
- · Duration and frequency

Emission days (days/year): 220

4 hrs (half working shift).

5 workdays/week.

- Environment Receiving river flow rate ≥ 1.8E4 m3/d
- · Physical parameters
- · Physical state

Fluid

Gaseous

- · Concentration of the substance in the mixture The substance is main component.
- · Used amount per time or activity 25000 tons per year
- Other operational conditions
- · Other operational conditions affecting environmental exposure

Use only on hard ground.

Factor emission or discharge: Air. 70000 kg/day

Other operational conditions affecting worker exposure

Ensure adequate ventilation, especially in closed rooms.

Keep container dry.

Avoid contact with eyes.

Avoid contact with the skin.

- · Other operational conditions affecting consumer exposure No special measures required.
- Other operational conditions affecting consumer exposure during the use of the product Not applicable.
- · Risk management measures
- · Worker protection
- · Organisational protective measures

All phases of production are closed and the containment level is high

Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. 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.

Keep good industrial hygiene.

· Technical protective measures

Only handle and refill product in closed systems.

The pipes and vessels are sealed and insulated

Ensure that suitable extractors are available on processing machines

Use product only in enclosed systems.

· Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes.

Tightly sealed goggles

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.

Protective gloves

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

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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

- · Measures for consumer protection Ensure adequate labelling.
- · Environmental protection measures
- · Air The exhaust air is lead to a scrubber
- Water

The product should not be released into water without pretreatment. An on-site wastewater treatment is recommended. The typical site treatment technology of wastewater achieves removal efficiency (%): (100)

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

Do not allow to reach sewage system.

- · Soil Prevent contamination of soil.
- · Notes In case of unintended release of the product: See section 6 of the Safety Data Sheet.
- · Disposal measures

Ensure that all wastewater is collected and treated in a wastewater treatment plant.

Disposal must be made according to official regulations.

Ensure that waste is collected and contained.

· Disposal procedures

Chemical treatment of contaminated water.

Product residues are incinerated as special waste.

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

· Waste type Partially emptied and uncleaned packaging

· 3 - Exposure estimation

To estimate exposures in the workplace has been used ECETOC TRA tool unless otherwise indicated.

· Worker (dermal)

The exposure estimation was carried out in accordance with ECETOC TRA.

PROC 15: 0.01 (mg/kg/d)

Detailed information on the exposure estimation can be found at http://www.ecetoc.org/tra.

Worker (inhalation)

The exposure estimation was carried out in accordance with ECETOC TRA.

PROC 15: 0.21 (mg/m3)

Detailed information on the exposure estimation can be found at http://www.ecetoc.org/tra.

- Environment

The estimation of environmental exposure was carried out in accordance with EUSES.

Concentration / maximum emission: Freshwater 0.000108 mg/l

Concentration / maximum emission: Seawater 0.0000231 mg/l

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

· Consumer Not relevant for this Exposure Scenario.

· 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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Annex: Exposure scenario 2

- · 1 Short title of the exposure scenario Laboratory use
- · Sector of Use

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

- · Process category PROC15 Use as laboratory reagent
- · Environmental release category

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)

ERC9a Widespread use of functional fluid (indoor)

ERC9b Widespread use of functional fluid (outdoor)

· Description of the activities / processes covered in the Exposure Scenario

See section 1 of the annex to the Safety Data Sheet.

- · 2 Conditions of use
- · Duration and frequency

Emission days (days/year): 220

4 hrs (half working shift).

5 workdays/week.

- · Physical parameters
- · Physical state

Fluid

Gaseous

- · Concentration of the substance in the mixture The substance is main component.
- · Other operational conditions
- · Other operational conditions affecting environmental exposure Use only on hard ground.
- · Other operational conditions affecting worker exposure

Ensure adequate ventilation, especially in closed rooms.

Keep container dry.

Avoid contact with eyes.

Avoid contact with the skin.

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

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.

Keep good industrial hygiene.

· Technical protective measures

Only handle and refill product in closed systems.

The pipes and vessels are sealed and insulated

Ensure that suitable extractors are available on processing machines

· Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes.

Tightly sealed goggles

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.

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

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- · Measures for consumer protection Ensure adequate labelling.
- · Environmental protection measures
- · Air The exhaust air is lead to a scrubber
- · Water

The product should not be released into water without pretreatment. An on-site wastewater treatment is recommended. The typical site treatment technology of wastewater achieves removal efficiency (%): (90)

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

Do not allow to reach sewage system.

- · Soil Prevent contamination of soil.
- · Notes In case of unintended release of the product: See section 6 of the Safety Data Sheet.
- · Disposal measures

Ensure that all wastewater is collected and treated in a wastewater treatment plant.

Disposal must be made according to official regulations.

Ensure that waste is collected and contained.

· Disposal procedures

Chemical treatment of contaminated water.

Product residues are incinerated as special waste.

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

- · Waste type Partially emptied and uncleaned packaging
- · 3 Exposure estimation
- · Worker (dermal)

The exposure estimation was carried out in accordance with ECETOC TRA.

PROC 15: 0.01 (mg/kg/d)

Detailed information on the exposure estimation can be found at http://www.ecetoc.org/tra.

· Worker (inhalation)

The exposure estimation was carried out in accordance with ECETOC TRA.

PROC 15: 0.13 (mg/m3)

Detailed information on the exposure estimation can be found at http://www.ecetoc.org/tra.

· Environment

The estimation of environmental exposure was carried out in accordance with EUSES.

Concentration / maximum emission: Freshwater 0.000108 mg/l

Concentration / maximum emission: Seawater 0.0000231 mg/l

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.