according to 1907/2006/EC, Article 31 (REACH)

Printing date 31.07.2018

Scharlau

Revision: 30.11.2017

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

- · 1.1 Product identifier
- · Trade name: Ammonia, solution 25%, eluent additive for LC-MS
- · Article number: AM0258
- · 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. 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:** 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. 1BH314 Causes severe skin burns and eye damage.Eye Dam. 1H318 Causes serious eye damage.

GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



STOT SE 3

H335 May cause respiratory irritation.

(Contd. on page 2)



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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*



· 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

P303+P361+P353 IF ON SKIN (or hair): 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.

	ionses, in present and easy to do. Continue mising.
P310	Immediately call a POISON CENTER/doctor.
P321	Specific treatment (see on this label).
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 EINECS: 215-647-6

ammonia

10-25%

Reg.nr.: 02-2119752451-43-XXXX **Additional information:** For the wording of the listed hazard phrases refer to section 16.

🔆 Skin Corr. 1B, H314; 🚯 Aquatic Acute 1, H400

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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- **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

· Additional information about design of technical facilities: No further data; see item 7.

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· 8.1 Control parameters

- · 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:
- · pH-value:
- Change in condition Melting point/freezing point:

Fluid Colourless Pungent Not determined. Not determined.

Undetermined.

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Trade name: Ammonia, solution 25%, eluent additive for LC-MS (Contd. of page 4) Initial boiling point and boiling range: 100 °C · Flash point: Not applicable. · Flammability (solid, gas): Not applicable. · Decomposition temperature: Not determined. Product is not selfigniting. Auto-ignition temperature: · Explosive properties: Product does not present an explosion hazard. Explosion limits: Not determined. Lower: Not determined. **Upper:** 500 hPa Vapour pressure at 20 °C: · Density at 20 °C: 0.9 g/cm³ · Relative density Not determined. Vapour density Not determined. Evaporation rate Not determined. Solubility in / Miscibility with water: Fully miscible. Not determined. · Partition coefficient: n-octanol/water: Viscosity: Dynamic: Not determined. Kinematic: Not determined. 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 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.
- · 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.

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- · STOT-single exposure
- 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: 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.
- · 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.

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
- 14.2 UN proper shipping name
- · ADR

UN2672

2672 A M M O N I A S O L U T I O N , ENVIRONMENTALLY HAZARDOUS AMMONIA SOLUTION

- IMDG, IATA • 14.3 Transport hazard class(es)
- · ADR



· Class

8 Corrosive substances.

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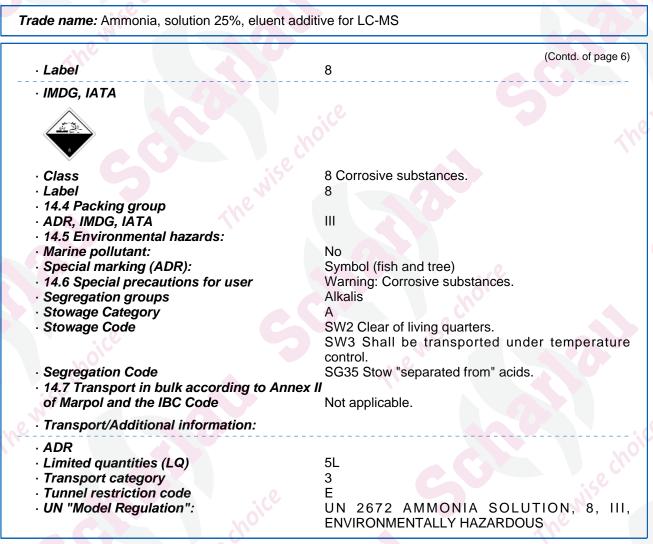




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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- · 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
- · 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.

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Directive 2012/18/EU



according to 1907/2006/EC, Article 31 (REACH)

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Trade name: Ammonia, solution 25%, eluent additive for LC-MS (Contd. of page 7) 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 européen sur le transport 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 \geq 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

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(Contd. of page 9) 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 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. (Contd. on page 11)





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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

(Contd. on page 13)



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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.