

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

Printing date 07.12.2020

Version number 2

Revision: 13.06.2020

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

· **1.1 Product identifier**

· **Trade name:** Ammonium hydroxide solution

· **Article number:** 0125

· **Registration number**

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

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

No further relevant information available.

· **Application of the substance / the mixture**

Chemical for research, development, manufacturing, laboratory chemical for analysis.

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Biosolve Chimie

20 Rue Roger Husson, 57260 Dieuze, France

Tel: +33 3 878 675 80/81/82/83/84/85

Email: [info@biosolvechimie.com](mailto:info@biosolvechimie.com)

Biosolve B.V.

Leenderweg 78, 5555 CE Valkenswaard, the Netherlands.

Tel: +31-(0)40-2071300

Fax: +31-(0)40-2048537

Email: [info@biosolve-chemicals.com](mailto:info@biosolve-chemicals.com)

· **Further information obtainable from:** Product safety department.

· **1.4 Emergency telephone number:**

Contact list of appointed bodies for information relating to emergency health response, according to Art. 45(1) Reg. (EC) No 1272/2008.

see: <https://poisoncentres.echa.europa.eu/home>.

Help desk: <http://echa.europa.eu/web/guest/support/helpdesks/national-helpdesks/list-of-national-helpdesks>.

Data from: ECHA - EUROPEAN CHEMICALS AGENCY

For more information see section 16.

**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.

(Contd. on page 2)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.12.2020

Version number 2

Revision: 13.06.2020

**Trade name: Ammonium hydroxide solution**

(Contd. of page 1)



GHS07

STOT SE 3      H335 May cause respiratory 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

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

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: Mixture of substances listed below with nonhazardous additions.

#### · Dangerous components:

CAS: 1336-21-6 EINECS: 215-647-6 Index number: 007-001-01-2	ammonia	⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400	10-25%
---	---------	--	--------

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

EU

(Contd. on page 3)

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

Printing date 07.12.2020

Version number 2

Revision: 13.06.2020

**Trade name: Ammonium hydroxide solution**

(Contd. of page 2)

**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.
- **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:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

\* **SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Mount respiratory protective device.  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
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**  
Avoid contact with skin and eyes.  
Avoid inhalation of vapour or mist.  
Keep away from sources of ignition - No smoking.  
Ensure good ventilation/exhaustion at the workplace.

(Contd. on page 4)

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

Printing date 07.12.2020

Version number 2

Revision: 13.06.2020

**Trade name: Ammonium hydroxide solution**

(Contd. of page 3)

- Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **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.
- **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.  
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:**  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.



Protective gloves

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

(Contd. on page 5)

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

Printing date 07.12.2020

Version number 2

Revision: 13.06.2020

**Trade name: Ammonium hydroxide solution**

(Contd. of page 4)

 · **Eye protection:**


Tightly sealed goggles

**SECTION 9: Physical and chemical properties**

 · **9.1 Information on basic physical and chemical properties**

 · **General Information**

 · **Appearance:**

<b>Form:</b>	Solution
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	No data available.

 · **pH-value:** No data available

 · **Change in condition**

<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	100 °C

 · **Flash point:** Not applicable.

 · **Flammability (solid, gas):** Not applicable.

 · **Decomposition temperature:** No data available

 · **Auto-ignition temperature:** Product is not selfigniting.

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

 · **Explosion limits:**

<b>Lower:</b>	No data available
<b>Upper:</b>	No data available

 · **Vapour pressure at 20 °C:** 23 hPa

<b>Density at 20 °C:</b>	0.973 g/cm <sup>3</sup>
<b>Relative density</b>	No data available
<b>Vapour density</b>	No data available
<b>Evaporation rate</b>	No data available

 · **Solubility in / Miscibility with water:** Fully miscible.

 · **Partition coefficient: n-octanol/water:** No data available

 · **Viscosity:**
**Dynamic:** Not determined.

 · **Solvent content:**
**Water:** 75.0 %

**Solids content:** 0.0 %

(Contd. on page 6)

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

Printing date 07.12.2020

Version number 2

Revision: 13.06.2020

**Trade name: Ammonium hydroxide solution**

(Contd. of page 5)

· **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 (carcinogenicity, 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**  
*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.*
- **Ecotoxicological 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.*  
*Very toxic for aquatic organisms*

(Contd. on page 7)

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

Printing date 07.12.2020

Version number 2

Revision: 13.06.2020

**Trade name: Ammonium hydroxide solution**

(Contd. of page 6)

- **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.

· **European waste catalogue**

HP8 Corrosive

HP14 Ecotoxic

- **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** UN2672
- **14.2 UN proper shipping name**
- **ADR** UN2672 AMMONIA SOLUTION, ENVIRONMENTALLY HAZARDOUS
- **IMDG** AMMONIA SOLUTION, MARINE POLLUTANT
- **IATA** AMMONIA SOLUTION

· **14.3 Transport hazard class(es)**

· **ADR**



- **Class** 8 (C5) Corrosive substances.
- **Label** 8

· **IMDG**



- **Class** 8 Corrosive substances.

(Contd. on page 8)

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


Printing date 07.12.2020

Version number 2

Revision: 13.06.2020

**Trade name: Ammonium hydroxide solution**

(Contd. of page 7)

· <b>Label</b>	8
· <b>IATA</b>	
	
· <b>Class</b>	8 Corrosive substances.
· <b>Label</b>	8
· <b>14.4 Packing group</b>	
· <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Environmental hazards:</b>	
· <b>Marine pollutant:</b>	Yes Symbol (fish and tree)
· <b>Special marking (ADR):</b>	Symbol (fish and tree)
· <b>14.6 Special precautions for user</b>	Warning: Corrosive substances.
· <b>Hazard identification number (Kemler code):</b>	80
· <b>EMS Number:</b>	F-AS-B
· <b>Segregation groups</b>	Alkalis
· <b>Stowage Category</b>	A
· <b>Stowage Code</b>	SW2 Clear of living quarters. SW3 Shall be transported under temperature control.
· <b>Segregation Code</b>	SG35 Stow "separated from" SGG1-acids
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>Transport category</b>	3
· <b>Tunnel restriction code</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 2672 AMMONIA SOLUTION, 8, III, ENVIRONMENTALLY HAZARDOUS

EU

(Contd. on page 9)



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

Printing date 07.12.2020

Version number 2

Revision: 13.06.2020

**Trade name: Ammonium hydroxide solution**

(Contd. of page 8)

**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 not 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.
- **Department issuing SDS:** Product safety department
- **Contact:**  
EU Poison Centers:

Country Telephone number

Austria +4314064343

Belgium 070 245245

Bulgaria (+)35929154233

Croatia (+3851)23-48-342

Czech Republic +420224919293; +420224915402

Denmark 82121212

Estonia 16662; (+372)6269390

Finland 9471977

France +33(0)145425959

Hungary (+36-80)201-199

Iceland 5432222

Ireland +353(1)8092166

Italy BERGAMO Ospedali Riuniti di Bergamo Tel. 800 88.33.00

FIRENZE Azienda Ospedaliera Careggi Tel. 055 79.47.819

MILANO Azienda Ospedaliera Niguarda Cà Granda Tel. 02 66.10.10.29

NAPOLI Ospedale Vincenzo Cardarelli Tel. 081 74.72.870

PAVIA Fondazione Salvatore Maugeri Tel. 0382 24.444

ROMA Policlinico Universitario "A. Gemelli" Tel. 06 30.54.343

ROMA Università degli Studi di Roma "La Sapienza" Tel. 06 49.97.80.00

Germany Berlin : 030/19240

Bonn : 0228/19240

Erfurt : 0361/730730

Freiburg : 0761/19240

(Contd. on page 10)

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

Printing date 07.12.2020

Version number 2

Revision: 13.06.2020

**Trade name: Ammonium hydroxide solution**

(Contd. of page 9)

Göttingen : 0551/19240  
 Homburg : 06841/19240  
 Mainz : 06131/19240  
 Munich : 089/19240  
 Latvia +37167042473  
 Lithuania +370532362052  
 Luxembourg 070245245; (+352)80002-5500  
 Netherlands 030-2748888  
 Norway 22591300  
 Portugal 808250143  
 Slovakia (NTIC) +421 2 54 774 166  
 Spain +34915620420  
 Sweden 112 (begär  
 Giftinformation);+46104566786  
 Switzerland 145

**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)  
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
 ICAO: International Civil Aviation Organisation  
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)  
 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

**\* Data compared to the previous version altered.**