

Trade name: Ammonii hydroxidi sol 25%

Substance number: 208375

Version: 5 / CH

Date revised: 31.01.2023

Replaces Version: 4 / CH

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

### **1.1. Product identifier**

Ammonii hydroxidi sol 25%

Item No. 20837500

### **1.3. Details of the supplier of the safety data sheet**

#### **Address/Manufacturer**

Hänseler AG

Industriestrasse 35

9100 Herisau

Telephone no. 0041 (0)71 353 58 58

E-mail address of sdb@haenseler.ch

person responsible

for this SDS

### **1.4. Emergency telephone number**

Switzerland :145 / Abroad +41 (0)44 251 51 51

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

### **2.1. Classification of the substance or mixture**

#### **Classification (Regulation (EC) No. 1272/2008)**

Classification (Regulation (EC) No. 1272/2008)

Skin Corr. 1B H314

Eye Dam. 1 H318

STOT SE 3 H335

Aquatic Acute 1 H400

Aquatic Chronic 3 H412

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

### **2.2. Label elements**

#### **Labelling according to regulation (EC) No 1272/2008**

##### **Hazard pictograms \*\*\***



##### **Signal word**

Danger

##### **Hazard statements \*\*\***

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

##### **Precautionary statements \*\*\***

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 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 or doctor.

**Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)**

contains \*\*\* ammonia ....%

**2.3. Other hazards**

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

**SECTION 3: Composition/information on ingredients \*\*\*****Hazardous ingredients \*\*\*****ammonia ....%**

CAS No.	1336-21-6
EINECS no.	215-647-6
Registration no.	01-2119488876-14-XXXX
Concentration	>= 20 < 25 %
Classification (Regulation (EC) No. 1272/2008)	
	Skin Corr. 1B H314
	Eye Dam. 1 H318
	STOT SE 3 H335
	Aquatic Acute 1 H400
	Aquatic Chronic 2 H411

## Concentration limits (Regulation (EC) No. 1272/2008)

	STOT SE 3	H335	>= 5
	Aquatic Acute 1	H400	M = 10

ATE oral 350 mg/kg

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note B

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Remove affected person from danger area, lay him down. Take affected person to fresh air. Do not leave casualty unattended. Remove contaminated clothing immediately and dispose of safely. Take medical treatment.

**After inhalation**

Irregular breathing/no breathing: artificial respiration. Breathing with the help of a ventilator bag or ventilator. If the patient is likely to become unconscious, place and transport in stable sideways position. Summon a doctor immediately.

**After skin contact**

After contact with skin, wash immediately with plenty of water. Summon a doctor immediately.

**After eye contact**

Separate eyelids, wash the eyes thoroughly with water (15 min.). Shield unaffected eye. Summon a doctor immediately.

**After ingestion**

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Do not induce vomiting - aspiration hazard. Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Summon a doctor immediately.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Carbon dioxide, Dry powder, Water spray jet, Extinguish greater fire with water spray or alcohol-resistant foam.

### **5.2. Special hazards arising from the substance or mixture**

In the event of fire the following can be released: Nitrogen oxides (NO<sub>x</sub>)

### **5.3. Advice for firefighters**

#### **Special protective equipment for fire-fighting**

Use self-contained breathing apparatus. Wear full protective suit.

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

### **6.1. Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep away unprotected persons.

### **6.2. Environmental precautions**

Do not discharge into the drains/surface waters/groundwater.

### **6.3. Methods and material for containment and cleaning up**

Pick up with absorbent material (eg sand, kieselgur, acid binder, universal binder). When picked up, treat material as prescribed under Section 13 "Disposal".

### **6.4. Reference to other sections**

Information regarding Safe handling, see Section 7. Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

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

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

Keep container tightly closed. Provide good ventilation of working area (local exhaust ventilation if necessary).

#### **Advice on protection against fire and explosion**

The product is not combustible.

### **7.2. Conditions for safe storage, including any incompatibilities**

#### **Requirements for storage rooms and vessels**

Keep in original packaging, tightly closed. Provide alkali-resistant floor.

#### **Hints on storage assembly**

Do not store with acids.

#### **Storage classes**

Storage class according to TRGS 510	8B	Non-combustible corrosive hazardous substances
Storage category (Switzerland)	8	Caustic and corrosive substances

#### **Further information on storage conditions**

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from direct sunlight.

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

### **8.1. Control parameters**

#### **Other information**

Contains no substances with occupational exposure limit values.

#### **Derived No/Minimal Effect Levels (DNEL/DMEL)**

##### **ammonia ....%**

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Acute	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	6.8	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	6.8	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	47.6	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	36	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	47.6	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	14	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Acute	
Route of exposure	dermal	
Mode of action	Systemic effects	

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Concentration 68 mg/kg

Type of value Derived No Effect Level (DNEL)

Reference group Consumer

Duration of exposure Long term

Route of exposure dermal

Mode of action Systemic effects

Concentration 68 mg/kg

Type of value Derived No Effect Level (DNEL)

Reference group Consumer

Duration of exposure Acute

Route of exposure inhalative

Mode of action Systemic effects

Concentration 23.8 mg/m<sup>3</sup>

Type of value Derived No Effect Level (DNEL)

Reference group Consumer

Duration of exposure Acute

Route of exposure inhalative

Mode of action Local effects

Concentration 7.2 mg/m<sup>3</sup>

Type of value Derived No Effect Level (DNEL)

Reference group Consumer

Duration of exposure Long term

Route of exposure inhalative

Mode of action Systemic effects

Concentration 23.8 mg/m<sup>3</sup>

Type of value Derived No Effect Level (DNEL)

Reference group Consumer

Duration of exposure Long term

Route of exposure inhalative

Mode of action Local effects

Concentration 2.8 mg/m<sup>3</sup>

Type of value Derived No Effect Level (DNEL)

Reference group Consumer

Duration of exposure Acute

Route of exposure oral

Mode of action Systemic effects

Concentration 6.8 mg/kg

Type of value Derived No Effect Level (DNEL)

Reference group Consumer

Duration of exposure Long term

Route of exposure oral

Mode of action Systemic effects

Concentration 6.8 mg/kg

**Predicted No Effect Concentration (PNEC)**

**ammonia ....%**

Type of value PNEC

Type Freshwater

Concentration 0.0011 mg/l

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Type of value	PNEC	
Type	Saltwater	
Concentration	0.00011	mg/l

## 8.2. Exposure controls

### General protective and hygiene measures

Keep away from food-stuffs, beverages and feed-stocks. Remove contaminated, soaked clothing immediately and dispose of safely. Wash hands before breaks and after work. Avoid contact with skin and eyes.

### Respiratory protection

Self-contained breathing apparatus.

### Hand protection

Protective gloves

Appropriate Material

The glove material must be sufficient impermeable and resistant to the substance. Check the tightness before wear. Gloves should be well cleaned before being removed, then stored in a well ventilated location.

Appropriate Material

Butyl rubber - Butyl

Material thickness 0.5 mm

Breakthrough time  $\geq$  8 h

Appropriate Material Fluoro carbon rubber - FKM

Material thickness 0.4 mm

Breakthrough time  $\geq$  8 h

### Eye protection

Tightly fitting safety glasses

### Body protection

impermeable protective overalls

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

### 9.1. Information on basic physical and chemical properties

<b>Physical state</b>	liquid
<b>Colour</b>	colourless to slightly yellow
<b>Odour</b>	of ammonia
<b>Freezing point</b>	
Value	appr. -44 °C
<b>Boiling point or initial boiling point and boiling range</b>	
Value	appr. 44 °C
<b>Upper and lower explosive limits</b>	
Lower explosion limit	27 %(V)
Upper explosion limit	16 %(V)
<b>Flash point</b>	
Value	°C
Remarks	Not applicable
<b>pH value</b>	
Value	12 to 13
<b>Vapour pressure</b>	
Value	358 hPa
Temperature	20 °C

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**Density and/or relative density**

Value	0.90	g/cm <sup>3</sup>
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**9.2. Other information****Solubility in water**

Remarks	Completely miscible
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**Auto-ignition temperature**

Value	651	°C
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**Explosive properties**

evaluation	no
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**Oxidising properties**

evaluation	None known
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**Other information**

The product is not dangerous for explosions.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No decomposition if stored and applied as directed.

**10.2. Chemical stability**

No decomposition if stored and applied as directed.

**10.3. Possibility of hazardous reactions**

No decomposition if stored and applied as directed.

**10.4. Conditions to avoid**

Heat

**10.5. Incompatible materials**

Reactions with strong acids. Metals, Zinc, Aluminium

**10.6. Hazardous decomposition products**

Ammonia

**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity**

ATE	1'400.56	mg/kg
	02	
Method	calculated value (Regulation (EC) No. 1272/2008)	

**Acute oral toxicity (Components)****ammonia ....%**

Species	rat	
LD50	350	mg/kg
Source	GESTIS-Stoffdatenbank	

**Acute dermal toxicity (Components)****ammonia ....%**

Remarks	No data available.
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**Acute inhalative toxicity (Components)****ammonia ....%**

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Remarks No data available.

**Skin corrosion/irritation**

Remarks Corrosive action on the skin and mucous membrane.

**Skin corrosion/irritation (Components)****ammonia ....%**

Species	rabbit
evaluation	corrosive
Method	OECD 404

**Serious eye damage/irritation**

evaluation strongly corrosive

**Serious eye damage/irritation (Components)****ammonia ....%**

Species	rabbit
evaluation	irritant - risk of serious damage to eyes

**Sensitization**

Remarks No sensitisation effect known.

**Sensitization (Components)****ammonia ....%**

Species	guinea pig
evaluation	non-sensitizing

**Subacute, subchronic, chronic toxicity (Components)****ammonia ....%**

Remarks No data available.

**Mutagenicity (Components)****ammonia ....%**

evaluation No experimental indications on genotoxicity in vivo found.

**ammonia ....%**

evaluation	No experimental information on genotoxicity in vitro available.
Method	Ames test

**Reproduction toxicity (Components)****ammonia ....%**

Remarks Indications of toxic effects are available from reproduction studies in animals.

**Carcinogenicity (Components)****ammonia ....%**

Remarks No evidence available on carcinogenicity.

**Specific Target Organ Toxicity (STOT) (Components)****ammonia ....%**

Remarks No data available

**11.2 Information on other hazards****Endocrine disrupting properties with respect to humans**

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

**Experience in practice**

After Swallowing: burns in mouth, throat, oesophagus and gastrointestinal tract. Risk of perforation in the oesophagus and stomach.



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## **SECTION 12: Ecological information \*\*\***

### **12.1. Toxicity**

#### **Fish toxicity (Components)**

##### **ammonia ....%**

Species	rainbow trout ( <i>Oncorhynchus mykiss</i> )	
LC50	0.89	mg/l
Duration of exposure	96	h

#### **Daphnia toxicity (Components)**

##### **ammonia ....%**

Species	Daphnia magna	
LC50	101	mg/l
Duration of exposure	48	h

#### **Algae toxicity (Components)**

##### **ammonia ....%**

Species	Chlorella vulgaris	
EC50	2700	mg/l
Duration of exposure	18	d

#### **Bacteria toxicity (Components)**

##### **ammonia ....%**

Remarks No data available.

### **12.2. Persistence and degradability**

#### **Biodegradability (Components)**

##### **ammonia ....%**

evaluation Readily biodegradable

#### **Ready degradability (Components)**

##### **ammonia ....%**

### **12.4. Mobility in soil**

#### **Mobility in soil (Components)**

##### **ammonia ....%**

Adsorbs on soil.

### **12.5. Results of PBT and vPvB assessment**

#### **Results of PBT and vPvB assessment \*\*\***

The product contains no PBT substances  
The product contains no vPvB substances.

### **12.6 Endocrine disrupting properties**

#### **Endocrine disrupting properties with respect to the environment**

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

### **12.7. Other adverse effects**

#### **General information / ecology**

Product is hazardous to water. Do not allow it to reach ground water, water bodies or sewage system.  
Hazard for drinking water supplies.

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## **SECTION 13: Disposal considerations**

### **13.1. Waste treatment methods**

#### **Disposal recommendations for the product**

EWC waste code

No not dispose with rubbish.




EWC waste code

Should not be released into the sanitary sewer system.

#### **Disposal recommendations for packaging**

Disposal in compliance with local and national regulations.

## **SECTION 14: Transport information**

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	E		
14.1. UN number	2672	2672	2672
14.2. UN proper shipping name	AMMONIA SOLUTION	AMMONIA SOLUTION	AMMONIA SOLUTION
14.3. Transport hazard class(es)	8	8	8
Label			
14.4. Packing group	III	III	III
Limited Quantity	5 I		
Transport category	3		

## **SECTION 15: Regulatory information**

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

#### **Water Hazard Class (Germany)**

Water Hazard Class (Germany) WGK 2

Remarks Derivation of WGK according to Annex 1 No. 5.2 AwSV

### **15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out.

## **SECTION 16: Other information**

#### **Hazard statements listed in Chapter 3**

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

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H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**CLP categories listed in Chapter 3**

Aquatic Acute 1	Hazardous to the aquatic environment, acute, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
Eye Dam. 1	Serious eye damage, Category 1
Skin Corr. 1B	Skin corrosion, Category 1B
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

**Supplemental information**

Relevant changes compared with the previous version of the safety data sheet are marked with: \*\*\*  
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.