

Safety Data sheet

According to Directive 1907/2006

0189 AMMONIA SOLUTION, 25% (as NH₃) w/w

Creation Date: 01/12/2010 Revision date: 31/05/2017

1. Identification of the substance/preparation and of the company/undertaking

Identification of the product

Catalogue No: 0189 Product name: AMMONIA SOLUTION, 25% (as NH₃) w/w Use of the substance: Analysis and chemical-pharmaceutical production REACH registration Nr.: 01-2119488876-14-0168

Company/undertaking identification

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2. Hazards identification

Labelling in accordance with directive 1907/2006



R-phrases

34 Causes burns.

50 Very toxic to aquatic organisms.

S-phrases

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

45 In case of accident or if you feel unwell, seek medical advice immediately. (Show the label where possible)

61 Avoid release to the environment. Refer to special instructions / Safety data sheets.

Labelling in accordance with directive 1272/2008



**H-phrases**

314 Causes severe skin burns and eye damage.
335 May cause respiratory irritation.
400 Very toxic to aquatic life.

P-phrases

309+311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
305+351 If in eyes: Rinse cautiously with water for several minutes.
338 Remove contact lenses, if present and easy to do. Continue rinsing.
273 Avoid release to the environment.

Signal word : DANGER

CORROSIVE; DANGEROUS FOR ENVIRONMENT

R-phrases:

Causes burns.

Very toxic to aquatic organisms.

3. Composition/information on ingredients

Short hazard description

AMMONIA, ANHYDROUS (CAS-Nr. 7664-41-7, EINECS-Nr. 231-635-3) 24-30%

R-Phrases: 10; 23; 34; 50

TOXIC; DANGEROUS FOR ENVIRONMENT

For the full text of the R phrases mentioned in this section, see Section 16.

CAS-No.: 1336-21-6

Molecular Weight: 17,03

Chemical formula: NH_3

EC-Index-No.: 007-001-01-2

EC-No.: 215-647-6

R-phrases 34; 50

For more information about the R-Phrases text you can consult the paragraph 16

4. First aid measures

After inhalation:

Fresh air

Call the physician

After skin contact:

Rinse with abundant water (or have a shower)

Extract the substance by means of cotton impregnated with polietilenglicol 400

Undress immediately of the contaminated clothes

After eye contact:

Rinse with abundant water, keeping eyelids open (at least 10 min)

Call the ophthalmologist

After swallowing:

Drink lots of water

Avoid vomiting (perforation risk)

Call the doctor

Do not carry out neutralization measures

5. Fire-fighting measures

Suitable extinguishing media:

Adapt the materials of the surroundings

Special risks:

Fireproof

Ambient fire may liberate hazardous vapours

The following may develop in event of fire nitrogen oxides

Special protective equipment for fire fighting:

Remain in the risk area only if provided with independent artificial respiratory systems.

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

Wear suitable protective clothing

Other information:

Precipitate emergent steam with water

Avoid penetration in superficial or subterranean aquifers

6. Accidental release measures

Person-related precautionary measures:

Not to inhale steam/aerosols

Avoid contact with the substance

Ventilation in closed spaces

Procedures for cleaning/absorption:

Take up with liquid-absorbent and neutralizing material

To come to the elimination of the remainders

Rinse.

Environmental protection measures:

Do not send it to the sewerage system

7. Handling and storage

Handling: Without other exigencies

Storage:

Well closed

In well-ventilated place

Storage temperature: ambient

8. Exposure controls/personal protection

Exposure limit control

AMMONIA, ANHYDROUS

TLV-TWA: 25 ppm; TLV-STEL: 35 ppm

Personal protective equipment:

Respiratory protection:

Necessary when steam/aerosols are generated

Hand protection:

Protection gloves:

Nitrile rubber

Butyl rubber

Eye protection:

Needed

Skin and body protection:

Suitable protective clothing

Other protective equipment:

Change immediately contaminated clothes

Recommendable preventive protection of the skin

Wash hands and face when the work is finished

Fulfill the commitments under local environmental protection legislation

9. Physical and chemical properties

Physical state: Liquid

Colour: Colourless

Odour: Biting

pH value: Strongly alkaline

Explosion limits: Lower: 15,4 Vol %. Upper: 33,6 Vol %.

Vapour pressure: 483 hPa

Density (g/cm³): 0,910

Solubility: Soluble (water)

log P(ow): -1,38 (anhydrous)

10. Stability and reactivity

Substances to be avoided:

Organic and inorganic reducing substances.

Metal and metal alloys.

Strong acids.

Iodine

Bases.

Hazardous decomposition products:

Not available.

Further information:

Explosible with air in a vaporous/gaseous state.

To avoid heating.

Incompatible with various metals and metal alloys.

11. Toxicological information

Acute toxicity:

LC50 (inhalation, rat): 1,4 mg/l/4h (anhydrous). LD50 (oral, rat): 350 mg/kg (sol. 29%).

After eye contact:

Burns

Risk of blindness

After skin contact:

Irritations

Dermatitis

Necrosis

After inhalation:

Coughing

Pulmonary oedema

Bronchitis

Irritation of: respiratory tract

After swallowing:

Nausea
Loss of consciousness
Collapse
Dyspnoea
Risk of perforation in stomach
Risk of perforation in the oesophagus
Stomach pains
Shock
Bloody vomiting

Further toxicological information:

No carcinogenic properties suspected
No mutagenic properties suspected
The precautions adapted for chemical agents must be observed

12. Ecological information

Fishes: *Onchorhynchus mykiss*: LC50: 0,53 mg/l/96h (anhydrous). *Salmo gairdneri*: EC10: 0,3 mg/l.
Daphnia: *Daphnia pulcaria*: EC50: 1,16 mg/l/48h (anhydrous). *Daphnia magna* EC50: 24 mg/l/48h (anhydrous).
Bacteria: *Photobacterium phosphoreum*: EC50: 2 mg/l/5min (anhydrous)
Log P(ow): -1,38
Degradability: Biologically not readily degradable
Bioaccumulation: No bioaccumulation is to be expected (log Pow < 1)

Other harmful effects:

Highly toxic for aquatic organisms
Harmful effect due to pH shift
Forms corrosive mixtures with water even if diluted
Do not allow to enter waters, waste water, or soil

13. Disposal considerations**Product:**

Dispose as regulated in the community countries by local regulations.
Please contact with the suitable authority in each case (Public Administration or company specialized in

Packaging:

Product packaging disposal must be disposed of in compliance with the respective local regulations.
For contaminated packaging the same measures must be adopted as for the contaminated product.
Not contaminated packaging must be disposed of as domestic residues or recycled material.
European Directive 94/62/EC of 20 December 1994 on packaging and packaging waste

14. Transport information**Overland transport ADR/RID**

UN: 2672
Class: 8
Packaging group: III
Correct technical name: AMMONIA SOLUTION

Sea transport IMDG

UN: 2672
Class: 8/III
Packaging group: III

Correct technical name: AMMONIA SOLUTION

Air transport ICAO-IATA-DGR

UN: 2672
Class: 8
Packaging group: III
Correct technical name: AMMONIA SOLUTION
CAO: 856
PAX: 852

15.Regulatory information

16.Other information

Full text of R phrases mentioned in sections 2 and 3

10 Flammable.

23 Toxic by inhalation.

34 Causes burns.

50 Very toxic to aquatic organisms.

The information contained herein is based on the present state of our knowledge.

It characterizes the product with regard to appropriate safety precautions. It does not represent a guaranty of the properties of the product.