



Safety Data Sheet

According to Regulation (EC) no. 1907/2006

Product Name
AMMONIA SOLUTION

1.0 Chemical product and company identification

1.1 Product Identifier

MSDS Name: AMMONIA SOLUTION
Substance name: AMMONIA SOLUTION
CAS No: 1336-21-6
PRODUCT CODE: AM

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

Use of the Substance / Mixture: LABORATORY CHEMICALS

Recommended restrictions on use: At this time we do not yet have information of identified uses. They will be included in the safety data sheets when available

1.3 Details of the supplier of the safety data sheet

Company Identification:
SOLUMETRICS LTD,
UNIT 1B SILEBY ROAD INDUSTRIAL ESTATE. BARROW ON SOAR, LEIC'S. LE12 8LP.
For information call. +44 (0)1509 815348
For emergencies call. +44 (0)1509 815348

2.0 Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) no 1272/2008

| | |
|---|------------|
| SKIN CORROSION/ IRRITATION | CATEGORY 1 |
| SERIOUS EYE DAMAGE/ EYE IRRITATION | CATEGORY 1 |
| SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (SINGLE EXPOSURE) | CATEGORY 3 |
| ACUTE AQUATIC TOXICITY | CATEGORY 1 |

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Symbols: C - Corrosive
N - Dangerous for the environment
R - Phrases: R34 - Causes burns
R50 - Very Toxic to aquatic organisms
Risk Combination Phrases:

2.2 Label Elements

Labelling according to regulation (EC) No 1272/2008

HAZARDS SYMBOLS



Signal Word: DANGER

Hazard Statements: H314
CAUSES SEVERE SKIN BURNS AND EYE DAMAGE

H335
H400

MAY CAUSE RESPIRATORY IRRITATION
VERY TOXIC TO AQUATIC LIFE

Precautionary statements

EU (28,1272/2008)

P301 + P330 + P331
P310
P261
P280
P305 + P351 + P338
P273

If SWALLOWED: rinse mouth. Do NOT induce vomiting
Immediately call a poison center or doctor / physician
Avoid breathing dust/fumes/gas/mist/vapors/spray
Wear protective gloves/ protective clothing/ eye protection/ face protection
IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
Avoid release to the environment

Other Hazards

No information available

3.0 Composition/ Information on ingredients

3.1 Substances

| EC No | Component | GHSCLAS | Classification |
|-------------------|------------------------------|--|----------------|
| EEC No. 215-647-6 | Ammonium Hydroxide 1336-21-6 | Skin Corr. 1B (H314) Aquatic Acute 1 (H400) STOT SE 3 (H335) | C; R34 N; R50 |

| Weight % | CAS No |
|----------|-----------|
| 35 | 1336-21-6 |

4.0 First Aid measures

4.1 Description of first aid measures

General Advice

If Inhaled:

Remove from exposure, lie down move to fresh air if breathing is difficult, give oxygen if not breathing, give artificial respiration immediate medical attention is required

In Case of Skin contact:

Wash off immediately with plenty of water for at least 15minutes. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty

In case of eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible

If Swallowed:

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of immediate medical attention and special treatment needed

5.0 FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing Media:

CO2, Dry Chemical, Dry Sand, Alcohol-resistant Foam, Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Un-Suitable extinguishing Media:

No Information available

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting:

Thermal decomposition can lead to release of irritating gases and vapors

5.3 Advice for fire-fighters**Special protective equipment for fire-fighters:**

AS in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear Thermal decomposition can lead to releases of irritating gases and vapors

Further Information:

Collect contaminated fire extinguishing water separately. This must not be discharged into drains

6.0 Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures****Personal Precautions:**

Use personal protective equipment. Keep away unprotected persons. Danger of slipping if spilled. Avoid contact with skin and eyes. Do not breathe vapours or spray mist. Ensure adequate ventilation

6.2 Environmental precautions:

Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases

6.3 Methods and materials for containment and cleaning up:

Soak up inert absorbent material (e.g sand, silica gel, acid binder, universal binder, sawdust) Prevent product from entering drains. Keep in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment/ Provide adequate ventilation. Do not flush surface water or sanitary sewer system. Do not expose spill to water. Do not let this chemical enter the environment

7.0 Handling and storage**7.1 Precautions for safe handling****Advice on safe handling:**

Do not breath vapors or spray mist. Do not get in eyes on skin or on clothing. Use only in area provided with appropriate exhaust ventilation. Keep containers dry and tightly closed to avoid moisture absorption and contamination

Hygiene measures:

Keep away from food, drink and animal feeding stuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately. Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist.

7.2 Conditions for safe storage, including any incompatibilities**Requirements for storage area containers:**

Keep in a dry, cool and well ventilated place Keep container tightly closed Keep away from heat source or ignition. Keep away from direct sunlight flammables area. Do not store in metal containers Keep under nitrogen

Further information on storage conditions:

Keep tightly closed in a dry and cool place. Keep in well ventilated place.

8.0 Exposure controls/ personal protection**8.1 Control parameters****Exposure Limits**

This product, as supplied does not contain any hazardous material with occupational exposure limits established by the region regulatory bodies

Component
Ammonium Hydroxide

| | |
|--------------------|--|
| European Union | NA |
| The United Kingdom | NA |
| France | NA |
| Belgium | NA |
| Spain | NA |
| Italy | NA |
| Portugal | NA |
| The Netherlands | NA |
| Finland | TWA: 20ppm - TWA:14mg/m ³ - STEL:50ppm - STEL:36mg/m ³ |
| Denmark | NA |
| Austria | NA |
| Switzerland | NA |
| Poland | NA |
| Norway | NA |
| Ireland | NA |

Derived No Effect Level (DNEL)

No Data available

Prediction No Effect Concentration (PNEC)

No Data available

8.2 Exposure controls**Engineering measures**

Use only under a chemical fume hood Ensure that eyewash stations and safety showers are close to workstation location.

Personal protective equipment**Eye Protection**

Safety glasses with side-shields

Hand Protection

Protective Gloves

Skin and body protection

Wear appropriate gloves and clothing to prevent skin exposure

Respiratory Protection

Follow the OSHA respirator regulations found in 29CFR 1910.134 European standards EN149. Use a NIOSH/MSHA or European Standards EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No data available

9.0 Physical and chemical properties**9.1 Information on basic physical and chemical properties****Physical State**

Liquid

Appearance

Colourless

Odor

Ammonia-Like

Boiling Point/ Range

No Data Available

Melting Point/ Range

No Data Available

Flash Point

No Data Available

Water Solubility

Soluble

Specific Gravity

0.88

Molecular Weight

35.05

Molecular FormulaH₅ N O**10.0 Stability and reactivity****10.1 Reactivity**

Stable under normal conditions

| | |
|--|--|
| 10.2 Chemical stability | Stable under normal conditions |
| 10.3 Possibility of hazardous reactions | |
| Hazardous reaction: | None under normal processing |
| Hazardous Polymerization: | Hazardous Polymerization does not occur |
| 10.4 Conditions to avoid | Incompatible products - Excess heat |
| Incompatible Materials | Strong oxidizing agents, Metals, Acids, Fluorine, Halogens |
| Hazardous Decomposition Products | Nitrogen Oxides (NOx) |

11.0 Toxicological Information

11.1 Information on toxicological effects

| | |
|---------------------------------------|--|
| Acute Toxicity Product Information | Product does not present an acute toxicity hazard based on known or supplied information |
|---------------------------------------|--|

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--------------------|-----------------|-------------|-----------------|
| Ammonium Hydroxide | 350 mg/kg (Rat) | NA | NA |

| | |
|---|---|
| <u>Chronic Toxicity</u> Charcinogenicity | There are no known carcinogenic chemicals in this product |
|---|---|

| | |
|--|---|
| SENSITIZATION MUTAGENIC EFFECTS REPRODUCTION EFFECTS DEVELOPMENT EFFECTS TARGET ORGANS OTHER ADVERSE EFFECTS ENDOCRINE DISRUPTOR INFORMATION | NO DATA AVAILABLE NO DATA AVAILABLE NO DATA AVAILABLE NO DATA AVAILABLE Skin Respiratory system Eyes Gastrointestinal tract (GI) SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION NO DATA AVAILABLE |
|--|---|

12.0 Ecological Information

12.1 Toxicity

| Component Ammonium Hydroxide | |
|---------------------------------|----------------------|
| FRESHWATER ALGAE | |
| FRESHWATER FISH | 8.2 mg/L LC50 96h |
| MICROTOX | |
| WATER FLEA | 0.66 mg/L EC50 = 48h |

| | |
|---|--------------------------|
| <u>Persistence and degradability</u> | No information available |
| <u>Bioaccumulative Potential</u> | No information available |
| <u>Mobility in soil</u> | No information available |
| <u>Results of PBT and vPvB assessment</u> <u>Other adverse effects</u> | No information available |

13.0 Disposal considerations

13.1 Waste treatment methods

| | |
|---------|---|
| Product | Disposal together with normal waste is not allowed. Special disposal required to local regulations. Do not let product enter drains. Contact waste disposal services. |
|---------|---|

Contaminated Packaging

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

14.0 Transport information**14.1 UN number**

2672

IMDG/IMO

UN Number
Hazard Class
Subsidiary Hazard Class
Packing group

2672
8
NA
III

ADR

UN Number
Hazard Class
Subsidiary Hazard Class
Packing group

2672
8
NA
III

IATA

UN Number
Hazard Class
Subsidiary Hazard Class
Packing group

2672
8
NA
III

15.0 Regulatory Information

Component
Ammonium Hydroxide

| | |
|---------------|-----------|
| EINECS | 215-647-6 |
| ELINCS | - |
| NLP | |
| TSCA | X |
| DSL | X |
| NDSL | - |
| PICCS | X |
| ENCS | X |
| CHINA | X |
| AICS | X |
| KECL | KE-01688X |
| | |

| | |
|----------------------|--|
| TSCA | United States Toxic Substance Control Act 8 (b) Inventory |
| EINECS/ELINCS | European Inventory Lists |
| DSL/NDSL | Canadian Domestic Substances list/ Non-Domestic Substance list |
| PICCS | Philippines Inventory of chemicals and chemical substances |
| ENCS | Japan Existing and New chemical substances |
| CHINA | China Inventory of existing chemical substances |
| AICS | Inventory of chemical substances |
| KECL | Existing and evaluated chemical substances |
| | |

16.0 Other information

Full text of R-Phrases referred to under section 2 and 3

R - Phrases

R34 - Causes burns
R50 - Very Toxic to aquatic organisms

Risk Combination Phrases**Hazard Statements:**

H314
H335
H400

CAUSES SEVERE SKIN BURNS AND EYE DAMAGE
MAY CAUSE RESPIRATORY IRRITATION
VERY TOXIC TO AQUATIC LIFE

Other information

This information is based upon Solumetrics Ltd Knowledge of this product at the time this Safety Data Sheet was prepared. It is given in good faith and no warranty is implied. The information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The user must satisfy him/her self as to the purpose this product is put to and the possible change in classification should this product be mixed or formulated with other compounds