### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Ammonia solution 35%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat No.</td>
<td>A/3240/PB15, A/3240/PB17</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>H5 N O</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Recommended Use</th>
<th>Laboratory chemicals.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses advised against</td>
<td>No Information available</td>
</tr>
</tbody>
</table>

1.3. Details of the supplier of the safety data sheet

<table>
<thead>
<tr>
<th>Company</th>
<th>Fisher Scientific UK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bishop Meadow Road, Loughborough, Leicestershire LE11 5RG, United Kingdom</td>
</tr>
<tr>
<td>E-mail address</td>
<td><a href="mailto:begel.sdsdesk@thermofisher.com">begel.sdsdesk@thermofisher.com</a></td>
</tr>
</tbody>
</table>

1.4. Emergency telephone number

<table>
<thead>
<tr>
<th>Chemtrec US</th>
<th>(800) 424-9300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemtrec EU</td>
<td>001 (202) 483-7616</td>
</tr>
<tr>
<td>Tel</td>
<td>01509 231166</td>
</tr>
</tbody>
</table>

### SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

#### CLP Classification - Regulation (EC) No 1272/2008

**Physical hazards**

Based on available data, the classification criteria are not met

**Health hazards**

<table>
<thead>
<tr>
<th>Skin Corrosion/irritation</th>
<th>Category 1 B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious Eye Damage/Eye Irritation</td>
<td>Category 1</td>
</tr>
<tr>
<td>Specific target organ toxicity - (single exposure)</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

**Environmental hazards**

<table>
<thead>
<tr>
<th>Acute aquatic toxicity</th>
<th>Category 1</th>
</tr>
</thead>
</table>

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

**Symbol(s)**

- C - Corrosive
- N - Dangerous for the environment

**R-phrase(s)**

- R34 - Causes burns
- R50 - Very toxic to aquatic organisms

*For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.*
SAFETY DATA SHEET

2.2. Label elements

Signal Word: Danger

Hazard Statements
- H314: Causes severe skin burns and eye damage
- H335: May cause respiratory irritation
- H400: Very toxic to aquatic life

Precautionary Statements
- P280: Wear protective gloves/ protective clothing/ eye protection/ face protection
- P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- P303 + P361 + P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower
- P304 + P340: IF INHALED: Remove 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/ physician
- P261: Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
- P273: Avoid release to the environment

2.3. Other hazards

No information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>EC-No.</th>
<th>Weight %</th>
<th>CLP Classification - Regulation (EC) No 1272/2008</th>
<th>DSD Classification - 67/548/EEC</th>
</tr>
</thead>
</table>
| Ammonium hydroxide  | 1336-21-6 | 215-647-6   | 35       | Skin Corr. 1B (H314)  
Eye Dam. 1 (H318)  
Aquatic Acute 1 (H400)  
STOT SE 3 (H335) | C; R34 N; R50 |
| Ammonia             | 7664-41-7 | EEC No. 231-635-3 | -        | Flam. Gas 2 (H221)  
Acute Tox. 3 (H331)  
Skin Corr. 1B (H314)  
Aquatic Acute 1 (H400) | R10  
T; R23  
C; R34  
N; R50 |
| Water               | 7732-18-5 | 231-791-2   | 65       | -                                                                             | -                                |

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice
Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Keep eye wide open while rinsing.
SAFETY DATA SHEET

Ammonia solution 35%

Skin Contact
Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Call a physician immediately.

Ingestion
Do not induce vomiting. Never give anything by mouth to an unconscious person. Clean mouth with water. Call a physician immediately.

Inhalation
If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Remove from exposure, lie down. Call a physician immediately.

Protection of First-aiders
Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

4.2. Most important symptoms and effects, both acute and delayed
Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

4.3. Indication of any immediate medical attention and special treatment needed
Notes to Physician
Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media
Suitable Extinguishing Media
CO₂, dry chemical, dry sand, alcohol-resistant foam.

Extinguishing media which must not be used for safety reasons
No information available.

5.2. Special hazards arising from the substance or mixture
Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous Combustion Products
Nitrogen oxides (NOₓ), Thermal decomposition can lead to release of irritating gases and vapors.

5.3. Advice for firefighters
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 release of irritating gases and vapors.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

6.2. Environmental precautions
Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional ecological information. Avoid release to the environment. Collect spillage.

6.3. Methods and material for containment and cleaning up
Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

### SECTION 7: HANDLING AND STORAGE

#### 7.1. Precautions for safe handling

Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Do not ingest. Do not breathe vapors or spray mist.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

#### 7.3. Specific end use(s)

Use in laboratories.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control parameters

**Exposure limits**

List source(s):

<table>
<thead>
<tr>
<th>Component</th>
<th>European Union</th>
<th>The United Kingdom</th>
<th>France</th>
<th>Belgium</th>
<th>Spain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia solution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA: 20 ppm 8 hr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA: 14 mg/m³ 8 hr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEL: 50 ppm 15 min</td>
<td>TWA: 50 ppm 15 min</td>
<td>STEL: 25 mg/m³ 15 min</td>
<td>TWA: 25 ppm 8 hr</td>
<td>STEL: 18 mg/m³ 8 hr</td>
<td>TWA / VME: 10 ppm (8 horas), restrictive limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL: 36 mg/m³ 15 min</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 18 mg/m³ 8 hr</td>
<td>STEL: 20 ppm, restrictive limit</td>
<td>STEL / VLCT: 14 mg/m³, restrictive limit</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Italy</th>
<th>Germany</th>
<th>Portugal</th>
<th>The Netherlands</th>
<th>Finland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium hydroxide</td>
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<tr>
<td>TWA: 20 ppm 8 ore.</td>
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<tr>
<td>TWA: 14 mg/m³ 8 ore.</td>
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<td></td>
</tr>
<tr>
<td>STEL: 50 ppm 15 min</td>
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</tr>
<tr>
<td>Breve termine</td>
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<tr>
<td>STEL: 36 mg/m³ 15 min</td>
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<td></td>
</tr>
<tr>
<td>Breve termine</td>
<td></td>
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<td></td>
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<tr>
<td>TWA: 20 ppm (8 Stunden). AGW - exposure factor 2</td>
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<tr>
<td>TWA: 14 mg/m³ (8 Stunden). AGW - exposure factor 2</td>
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<tr>
<td>TWA: 20 ppm (8 Stunden). MAK</td>
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<tr>
<td>TWA: 14 mg/m³ (8 Stunden). MAK</td>
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<tr>
<td>Höhepunkt: 40 ppm</td>
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<tr>
<td>Höhepunkt: 28 mg/m³</td>
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<tr>
<td>STEL: 50 ppm 15 min</td>
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<tr>
<td>STEL: 36 mg/m³ 15 min</td>
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<tr>
<td>Minuten. Breve termine</td>
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<td>STEL: 28 mg/m³ 15 min</td>
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<tr>
<td>Minuten. Breve termine</td>
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<td>TWA: 14 mg/m³ 8 Stunden</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Austria</th>
<th>Denmark</th>
<th>Switzerland</th>
<th>Poland</th>
<th>Norway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia solution</td>
<td></td>
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<tr>
<td>MAK-KZW: 50 ppm 15 Minuten</td>
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<tr>
<td>MAK-KZW: 36 mg/m³ 15 Minuten</td>
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<tr>
<td>MAK-TMW: 20 ppm 8 Stunden</td>
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<tr>
<td>MAK-TMW: 14 mg/m³ 8 Stunden</td>
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<tr>
<td>TWA: 20 ppm 8 timer</td>
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<tr>
<td>TWA: 14 mg/m³ 8 timer</td>
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<tr>
<td>STEL: 40 ppm 15 Minuten</td>
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<td>STEL: 28 mg/m³ 15 Minuten</td>
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<td>TWA: 20 ppm 8 Stunden</td>
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<td>TWA: 14 mg/m³ 8 Stunden</td>
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<td>TWA: 20 ppm 8 timer</td>
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<td>TWA: 14 mg/m³ 8 timer</td>
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<td>STEL: 28 mg/m³ 15 Minuten</td>
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<tr>
<td>TWA: 20 ppm 8 timer</td>
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<td>TWA: 14 mg/m³ 8 timer</td>
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<tr>
<td>STEL: 36 mg/m³ 15 Minuten</td>
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<td>STEL: 36 mg/m³ 15 Minuten</td>
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<tr>
<td>TWA: 20 ppm 15</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
### Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

### Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

### Derived No Effect Level (DNEL)

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Acute effects (local)</th>
<th>Acute effects (systemic)</th>
<th>Chronic effects (local)</th>
<th>Chronic effects (systemic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

FSUA3240
Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Measures
Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

Personal protective equipment

<table>
<thead>
<tr>
<th>Glove material</th>
<th>Breakthrough time</th>
<th>Glove thickness</th>
<th>EU standard</th>
<th>Glove comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neoprene</td>
<td>See manufacturers</td>
<td>-</td>
<td>EN 374</td>
<td></td>
</tr>
<tr>
<td></td>
<td>recommendations</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skin and body protection Long sleeved clothing

Inspect gloves before use. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Remove gloves with care avoiding skin contamination.

Respiratory Protection
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly.

Large scale/emergency use
Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. **Recommended Filter type:** Inorganic gases and vapours filter Type B Grey or Ammonia and organic ammonia derivatives filter Type K Green conforming to EN14387

Small scale/Laboratory use
Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. **Recommended half mask:** Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141

When RPE is used a face piece Fit Test should be conducted

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colorless</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Ammonia-like</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>No data available</td>
</tr>
<tr>
<td>Softening Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No information available</td>
</tr>
<tr>
<td>Method</td>
<td>No information available</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

Evaporation Rate: No data available
Flammability (solid, gas): Not applicable
Explosion Limits: No data available

Vapor Pressure: No data available
Vapor Density: No data available
Specific Gravity / Density: 0.88
Bulk Density: Not applicable
Water Solubility: Soluble
Solubility in other solvents: No information available
Partition Coefficient (n-octanol/water): Log Pow
Component: Ammonia
Ammonia solution 35%
Ammonium hydroxide: 350 mg/kg (Rat)
Ammonia: 350 mg/kg (Rat)
Water Solubility: Soluble
Partition Coefficient (n-octanol/water): Log Pow

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product Information: See actual entry in RTECS for complete information.

(a) acute toxicity:
   Oral: Based on available data, the classification criteria are not met
   Dermal: Based on available data, the classification criteria are not met
   Inhalation: Based on available data, the classification criteria are not met

(b) skin corrosion/irritation: Category 1 B

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
None known, based on information available

10.2. Chemical stability
Stable under normal conditions

10.3. Possibility of hazardous reactions
Hazardous polymerization: Hazardous polymerization does not occur.
Hazardous Reactions: None under normal processing.

10.4. Conditions to avoid
Incompatible products. Excess heat.

10.5. Incompatible materials

10.6. Hazardous decomposition products
Nitrogen oxides (NOx). Thermal decomposition can lead to release of irritating gases and vapors.
SAFETY DATA SHEET

(c) serious eye damage/irritation; Category 1

(d) respiratory or skin sensitization; Based on available data, the classification criteria are not met
   Respiratory
   Skin

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

(f) carcinogenicity; There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; Based on available data, the classification criteria are not met

(h) STOT-single exposure; Category 3

(i) STOT-repeated exposure; Based on available data, the classification criteria are not met
   Target Organs Skin, Respiratory system, Eyes, Gastrointestinal tract (GI).

(j) aspiration hazard; Based on available data, the classification criteria are not met

Other Adverse Effects See actual entry in RTECS for complete information

Symptoms / effects, both acute and delayed Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecotoxicity effects Very toxic to aquatic organisms. The product contains following substances which are hazardous for the environment.

<table>
<thead>
<tr>
<th>Component</th>
<th>Freshwater Fish</th>
<th>Water Flea</th>
<th>Freshwater Algae</th>
<th>Microtox</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium hydroxide</td>
<td>0.53 mg/l LC50 96h</td>
<td></td>
<td>EC50: 0.66 mg/L/48h</td>
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<tr>
<td></td>
<td>0.75 - 3.4 mg/l LC50 96h</td>
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<tr>
<td></td>
<td>8.2 mg/L LC50 96h</td>
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<tr>
<td>Ammonia</td>
<td>1.19 mg/L LC50 96h</td>
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<td>EC50 = 25.4 mg/L 48h</td>
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<td></td>
<td>1.5 mg/L LC50 96h</td>
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<td>5.9 mg/L LC50 96h</td>
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<td></td>
<td>0.73 - 2.35 mg/L LC50 96h</td>
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<td>1.17 mg/L LC50 96h</td>
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<td></td>
<td>0.26 - 4.6 mg/L LC50 96h</td>
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<td></td>
<td>0.44 mg/L LC50 96h</td>
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</tbody>
</table>

12.2. Persistence and degradability
Persistence Soluble in water, Persistence is unlikely, based on information available.
Degradation in sewage treatment plant Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

12.3. Bioaccumulative potential Bioaccumulation is unlikely

<table>
<thead>
<tr>
<th>Component</th>
<th>log Pow</th>
<th>Bioconcentration factor (BCF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>-1.14</td>
<td>No data available</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil The product is water soluble, and may spread in water systems Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

12.5. Results of PBT and vPvB No data available for assessment.

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assessment

12.6. Other adverse effects

Endocrine Disruptor Information  This product does not contain any known or suspected endocrine disruptors

Persistent Organic Pollutant  This product does not contain any known or suspected substance

Ozone Depletion Potential  This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues / Unused Products  Should not be released into the environment. Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging  Dispose of this container to hazardous or special waste collection point.

European Waste Catalogue (EWC)  According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

Other Information  Do not dispose of waste into sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. Do not let this chemical enter the environment.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

14.1. UN number  UN2672
14.2. UN proper shipping name  AMMONIA SOLUTION
14.3. Transport hazard class(es)  8
14.4. Packing group  III

ADR

14.1. UN number  UN2672
14.2. UN proper shipping name  AMMONIA SOLUTION
14.3. Transport hazard class(es)  8
14.4. Packing group  III

IATA

14.1. UN number  UN2672
14.2. UN proper shipping name  AMMONIA SOLUTION
14.3. Transport hazard class(es)  8
14.4. Packing group  III

14.5. Environmental hazards  Dangerous for the environment

Product is a marine pollutant according to the criteria set by IMDG/IMO

14.6. Special precautions for user  No special precautions required

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories  X = listed

<table>
<thead>
<tr>
<th>Component</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>PICCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>AICS</th>
<th>KECL</th>
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<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Ammonium hydroxide</td>
<td>215-647-6</td>
<td>X X</td>
</tr>
<tr>
<td>Ammonia</td>
<td>231-635-3</td>
<td>X X</td>
</tr>
<tr>
<td>Water</td>
<td>231-791-2</td>
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</table>

National Regulations

<table>
<thead>
<tr>
<th>Component</th>
<th>Germany - Water Classification (VwVwS)</th>
<th>Germany - TA-Luft Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium hydroxide</td>
<td>WGK 2</td>
<td></td>
</tr>
<tr>
<td>Ammonia</td>
<td>WGK 2</td>
<td></td>
</tr>
</tbody>
</table>

Take note of Control of Substances Hazardous to Health Regulations (COSH2) 2002 and 2005 Amendment.
Take note of Dir 94/33/EC on the protection of young people at work
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

SECTION 16: OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3
R34 - Causes burns
R50 - Very toxic to aquatic organisms

Full text of H-Statements referred to under sections 2 and 3
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H335 - May cause respiratory irritation
H400 - Very toxic to aquatic life

Legend

CAS - Chemical Abstracts Service
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
IECSC - Chinese Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
WEL - Workplace Exposure Limit
ACGIH - American Conference of Governmental Industrial Hygienists
RPE - Respiratory Protective Equipment
LC50 - Lethal Concentration 50%
NOEC - No Observed Effect Concentration
PBT - Persistent, Bioaccumulative, Toxic
ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road
IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code
OECD - Organisation for Economic Co-operation and Development
BCF - Bioconcentration factor
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCS - Japanese Existing and New Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals
TWA - Time Weighted Average
IARC - International Agency for Research on Cancer
PNEC - Predicted No Effect Concentration
LD50 - Lethal Dose 50%
EC50 - Effective Concentration 50%
POW - Partition coefficient Octanol:Water
vPvB - very Persistent, very Bioaccumulative
ICAO/IATA - International Civil Aviation Organization/International Air Transport Association
MARPOL - International Convention for the Prevention of Pollution from Ships
ATE - Acute Toxicity Estimate
VOC - Volatile Organic Compounds

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS
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Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.
First aid for chemical exposure, including the use of eye wash and safety showers.
Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.
Chemical incident response training.

Creation Date 23-Nov-2009
Revision Date 13-Apr-2015
Revision Summary Not applicable.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet