Aqua Ammonia
Safety Data Sheet
Revision Date: 05/14/2018          Date of Issue: 05/31/2015          Version: 3.0

SECTION 1: IDENTIFICATION

Product Identifier
Product Form: Mixtures
Product Name: Aqua Ammonia
Chemical Name: Ammonium Hydroxide Solution
CAS-No.: 1336-21-6
Formula: NH₄OH (aq)
Synonyms: Ammonia, aqueous solution, Ammonium hydroxide ((NH₄)(OH)), Ammonia aqueous, Ammonia solution, AMMONIUM HYDROXIDE, Ammonia, aqueous, Ammonia solutions, Ammonia...

Intended Use of the Product
Fertilizer; extracting metals from their ores; manufacturing of plastics, fibers, resins, explosives, detergents, pesticides, pharmaceuticals, ammonium compounds, and other chemicals.

Name, Address, and Telephone of the Responsible Party
Manufacturer
CHEMTRADE LOGISTICS INC.
155 Gordon Baker Road
Suite 300
Toronto, Ontario M2H 3N5
For SDS Info: (416) 496-5856
www.chemtradelogistics.com

Emergency Telephone Number
Emergency Number : Canada: CANUTEC +1-613-996-6666 / US: CHEMTREC +1-800-424-9300
INTERNATIONAL: +1-703-741-5970
Chemtrade Emergency Contact: (866) 416-4404
For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture
GHS Classification
Acute Tox. 4 (Oral) H302
Skin Corr. 1B H314
Eye Dam. 1 H318
STOT SE 3 H335
Aquatic Acute 1 H400

Full text of hazard classes and H-statements : see section 16

Label Elements
GHS Labeling
Hazard Pictograms :

Signal Word : Danger
Hazard Statements : H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H335 - May cause respiratory irritation
H400 - Very toxic to aquatic life
Precautionary Statements : P260 - Do not breathe gas, vapors, fume, mist, spray
P261 - Avoid breathing fume, mist, spray, vapors
P264 - Wash clothing thoroughly after handling
Aqua Ammonia
Safety Data Sheet

P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P280 - Wear eye protection, face protection, protective gloves, protective clothing
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
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 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/physician
P312 - Call a POISON CENTER/doctor/physician if you feel unwell
P321 - Specific treatment (see Section 4)
P330 - If swallowed, rinse mouth
P363 - Wash contaminated clothing before reuse
P391 - Collect spillage
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/container to local, regional, national, and international regulations

Other Hazards
Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

Unknown acute toxicity
No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Mixture</th>
<th>Product Identifier</th>
<th>%*</th>
<th>GHS Ingredient Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS-No.) 7732-18-5</td>
<td>30 - 75</td>
<td>Not classified</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>(CAS-No.) 1336-21-6</td>
<td>10 - 30* 15 - 40*</td>
<td>Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16
*The actual concentration of the ingredient(s) is withheld as a trade secret in accordance with Regulations Amending the Hazardous Products Regulations (HPR) SOR/2018-68 and 29 CFR 1910.1200.
*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

SECTION 4: FIRST AID MEASURES

Description of First-aid Measures
General: IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible).
Inhalation: Using proper respiratory protection, immediately move the exposed person to fresh air. Keep at rest and in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. Seek immediate medical advice. Symptoms may be delayed.
Skin Contact: Remove/Take off immediately all contaminated clothing. Immediately flush skin with plenty of water for at least 60 minutes. Seek medical attention immediately if exposure is severe. Obtain medical attention if irritation develops or persists. Wash contaminated clothing before reuse. Do not apply salves or ointments to the affected area.
**Aqua Ammonia**

**Safety Data Sheet**


---

**Eye Contact:** Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

**Ingestion:** If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

**Most Important Symptoms and Effects Both Acute and Delayed**

**General:** Harmful if swallowed. Corrosive. Causes burns. Causes severe skin burns and eye damage. May be corrosive to the respiratory tract.

**Inhalation:** Contact may cause immediate severe irritation progressing quickly to chemical burns. Danger of serious damage to health by prolonged exposure through inhalation. May cause pulmonary edema. Symptoms may be delayed.

**Skin Contact:** Causes severe skin burns. Redness. Pain. Serious skin burns. Blisters.

**Eye Contact:** Causes permanent damage to the cornea, iris, or conjunctiva. Can cause blindness.

**Ingestion:** May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Swallowing a small quantity of this material will result in serious health hazard.

**Chronic Symptoms:** Repeated or prolonged inhalation may damage lungs. Prolonged and repeated contact will eventually cause permanent tissue damage. Repeated or prolonged exposure may damage kidneys.

**Indication of Any Immediate Medical Attention and Special Treatment Needed**

If medical advice is needed, have product container or label at hand. Acute respiratory effects, including pulmonary edema, may be delayed. Pneumonitis should be anticipated after inhalation or ingestion. If severe exposure is suspected, observe for 48-72 hours for delayed pulmonary edema.

---

**SECTION 5: FIRE-FIGHTING MEASURES**

**Extinguishing Media**

Suitable Extinguishing Media: Dry powder, alcohol-resistant foam, water in large amounts, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

**Special Hazards Arising From the Substance or Mixture**

**Fire Hazard:** Not flammable.

**Explosion Hazard:** Product is not explosive. Ammonia vapor concentrations between 16% and 25% can explode on contact with an ignition source.

**Reactivity:** Ammonium hydroxide reacts with many heavy metals and their salts forming explosive compounds. It attacks many metals forming flammable/explosive gas. The solution in water is a strong base, it reacts violently with acids.

**Advice for Firefighters**

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Keep upwind. Use water spray or fog for cooling exposed containers. Do not get water inside containers. Do not apply water stream directly at source of leak. Do not breathe fumes from fires or vapors from decomposition.

**Protection During Firefighting:** Firefighters must use full bunker gear including NIOSH-approved positive-pressure self-contained breathing apparatus to protect against potential hazardous combustion and decomposition products.

**Hazardous Combustion Products:** Nitrogen oxides. Nitrogen compounds. Ammonia.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

**Reference to Other Sections**

Refer to Section 9 for flammability properties.

---

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures**

**General Measures:** Avoid all contact with skin, eyes, and clothing. Do not breathe vapor, mist or spray.

**For Non-Emergency Personnel**

**Protective Equipment:** Use recommended respiratory protection. Wear suitable protective clothing, gloves and eye/face protection.


**For Emergency Personnel**

**Protective Equipment:** Use recommended respiratory protection. Wear suitable protective clothing, gloves and eye/face protection.

**Emergency Procedures:** Stop leak if safe to do so. Eliminate ignition sources. Evacuate unnecessary personnel. Ventilate area.

**Environmental Precautions**

Avoid release to the environment. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods and Materials for Containment and Cleaning Up**

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
**Aqua Ammonia**

Safety Data Sheet


---

**Methods for Cleaning Up:** Ventilate area. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Collect absorbed material and place into a sealed, labelled container for proper disposal. Practice good housekeeping - spillage can be slippery on smooth surface either wet or dry.

**Reference to Other Sections**

See Section 8, Exposure Controls and Personal Protection.

---

**SECTION 7: HANDLING AND STORAGE**

**Precautions for Safe Handling**

Avoid all eyes and skin contact and do not breathe vapor and mist. Wear recommended personal protective equipment. Ensure there is adequate ventilation. Keep away from heat and open flame.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Wash contaminated clothing before reuse.

**Conditions for Safe Storage, Including Any Incompatibilities**

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Detached outside storage is preferable. Store away from oxygen and oxidizers. Keep/Store away from extremely high or low temperatures and incompatible materials.


**Storage Area:** Store in dry, cool area. Store in a well-ventilated place. Keep away from combustible materials. Keep away from sources of ignition - No smoking. Protect from high temperatures.

**Specific End Use(s)**

Fertilizer; extracting metals from their ores; manufacturing of plastics, fibers, resins, explosives, detergents, pesticides, pharmaceuticals, ammonium compounds, and other chemicals.

---

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control Parameters**

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

**Exposure Controls**

**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Provide sufficient ventilation to keep ammonia vapors below the permissible exposure limit. Ensure all national/local regulations are observed.


**Materials for Protective Clothing:** Chemically resistant materials and fabrics.

**Hand Protection:** Impermeable protective gloves.

**Eye Protection:** Chemical safety goggles and face shield.

**Skin and Body Protection:** Wear suitable protective clothing. Chemical resistant suit. Rubber apron, boots.

**Respiratory Protection:** For exposures at or below 300 ppm use a NIOSH-approved, full-face, negative-pressure respirator fitted with ammonia vapor cartridges. For exposure concentrations above 300 ppm, use a full-face, positive-pressure, self-contained breathing apparatus.

**Environmental Exposure Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

---

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Information on Basic Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear</td>
</tr>
<tr>
<td>Odor</td>
<td>Ammonia</td>
</tr>
</tbody>
</table>
### Odor Threshold
: 0.043 - 5 ppm @ 30% (w/w).

**pH**
: 13 @ 10%/ 11.6 @ 1N.

**Evaporation Rate**
: Not available

**Melting Point**
: Not applicable

**Freezing Point**
: -72.4°C (-98.3°F) @ 30% (w/w)
-73°C (-100°F) @ 10 - 35% (w/w)
-77°C (-107°F) @ 27 - 30% (w/w)

**Boiling Point**
: 27.2°C (81°F) @ 30% (w/w)
38°C (100°F) @ 10 - 35% (w/w)

**Flash Point**
: Not available

**Auto-ignition Temperature**
: Not available

**Decomposition Temperature**
: Not available

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

**Lower Flammable Limit**
: Not available

**Upper Flammable Limit**
: Not available

**Vapor Pressure**
: 63.3 kPa (475 mm Hg) (at 20°C) @ 30% (w/w)
48 kPa (360 mm Hg) (at 20°C) @ 10 - 35% (w/w).

**Relative Vapor Density at 20°C**
: 0.618 @ 15°C (59°F) (Air=1) @ 30% (w/w)
0.6 - 1.2 (Air = 1) @ 10 - 35% (w/w)
0.59 (Air = 1) @ 27 - 30% (w/w)

**Relative Density**
: 0.895 (Water = 1) @ 30% (w/w)
1.9 @ 10 - 35% (w/w). 0.9 @ 27 - 30% (w/w)
0.898 @ 28% (w/w). 0.8974 @ 29.4% (w/w)

**Specific Gravity**
: 0.895 g/cm³

**Solubility**
: Water: Miscible

**Partition Coefficient: N-Octanol/Water**
: Not available

**Viscosity**
: Not available

### SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** Ammonium hydroxide reacts with many heavy metals and their salts forming explosive compounds. It attacks many metals forming flammable/explosive gas. The solution in water is a strong base, it reacts violently with acids.

**Chemical Stability:** Stable at standard temperature and pressure.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**Conditions to Avoid:** Keep away from heat. Avoid ignition sources. Extremely high or low temperatures and incompatible materials.


**Hazardous Decomposition Products:** Under conditions of fire this material may produce: Ammonia. Nitrogen oxides.

### SECTION 11: TOXICOLOGICAL INFORMATION

**Information on Toxicological Effects - Product**

- **Acute Toxicity (Oral):** Oral: Harmful if swallowed.
- **Acute Toxicity (Dermal):** Not classified
- **Acute Toxicity (Inhalation):** Not classified

**LD50 and LC50 Data:**

<table>
<thead>
<tr>
<th>Species/Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aqua Ammonia (1336-21-6)</td>
<td></td>
</tr>
</tbody>
</table>

**ATE (Oral)**
1,000.00 mg/kg body weight

**Skin Corrosion/Irritation:** Causes severe skin burns and eye damage.

**pH:** 13 @ 10%/ 11.6 @ 1N.

**Eye Damage/Irritation:** Causes serious eye damage.

**pH:** 13 @ 10%/ 11.6 @ 1N.

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified
Aqua Ammonia
Safety Data Sheet

Carcinogenicity: Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.
Aspiration Hazard: Not classified
Symptoms/Effects After Inhalation: Contact may cause immediate severe irritation progressing quickly to chemical burns. Danger of serious damage to health by prolonged exposure through inhalation. May cause pulmonary edema. Symptoms may be delayed.
Symptoms/Effects After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva. Can cause blindness.
Symptoms/Effects After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Swallowing a small quantity of this material will result in serious health hazard.
Chronic Symptoms: Repeated or prolonged inhalation may damage lungs. Prolonged and repeated contact will eventually cause permanent tissue damage. Repeated or prolonged exposure may damage kidneys.

Information on Toxicological Effects - Ingredient(s)
LD50 and LC50 Data:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>LD50 Oral Rat</th>
<th>LC50 Fish 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium hydroxide (1336-21-6)</td>
<td>350 mg/kg</td>
<td>8.2 mg/l</td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>&gt; 90000 mg/kg</td>
<td>0.66 mg/l</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

Toxicity
Ecology - General: Very toxic to aquatic life.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>LC50 Fish 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium hydroxide (1336-21-6)</td>
<td>8.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>0.66 mg/l (Exposure time: 48 h - Species: water flea)</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>0.66 mg/l (Exposure time: 48 h - Species: Daphnia pulex)</td>
</tr>
</tbody>
</table>

Persistence and Degradability
Aqua Ammonia (1336-21-6)
Persistence and Degradability: Product is biodegradable.

Bioaccumulative Potential
Aqua Ammonia (1336-21-6)
Bioaccumulative Potential: Not expected to bioaccumulate.

Mobility in Soil: Not available

Other Adverse Effects: Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Sewage Disposal Recommendations: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.
Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

*When shipped in accordance with US DOT 49 CFR part 171.4(c) and other appropriate sections/provisions this material is not designated as a marine pollutant when transported by road or rail.
**When shipped in accordance with the Canada Transport of Dangerous Goods Regulations part 1.45.1 and other appropriate sections/provisions this material is not designated as a marine pollutant when transported by road or rail.

<table>
<thead>
<tr>
<th>TRANSPORTATION CLASSIFICATION</th>
<th>DOT</th>
<th>TDG</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification Number</td>
<td>UN2672</td>
<td>UN2672</td>
<td>UN2672</td>
<td>UN2672</td>
</tr>
<tr>
<td>Proper Shipping Name</td>
<td>AMMONIA SOLUTION (relative density between 0.880 and 0.957 at 15 degrees C)</td>
<td>AMMONIA SOLUTION (relative density between 0.880 and 0.957 at 15 °C in water)</td>
<td>AMMONIA SOLUTION (relative density between 0.880 and 0.957 at 15 degrees C)</td>
<td>AMMONIA SOLUTION</td>
</tr>
</tbody>
</table>
### Aqua Ammonia

**Safety Data Sheet**


<table>
<thead>
<tr>
<th>Transport Hazard Class(es)</th>
<th>8</th>
<th>8</th>
<th>8</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing Group</td>
<td>III</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td>Environmental Hazards</td>
<td>Marine Pollutant : Yes*</td>
<td>Marine Pollutant : Yes**</td>
<td>Marine Pollutant : Yes</td>
<td>Marine Pollutant: N/A</td>
</tr>
<tr>
<td>Emergency Response</td>
<td>ERG Number : 125</td>
<td>ERAP Index: Not applicable</td>
<td>EMS: F-A, S-B</td>
<td>ERG code (IATA): 8L</td>
</tr>
<tr>
<td>Additional Information</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

#### US Federal Regulations

<table>
<thead>
<tr>
<th>Chemical Name (CAS No.)</th>
<th>CERCLA RQ</th>
<th>EPCRA 304 RQ</th>
<th>SARA 302 TPQ</th>
<th>SARA 313</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium hydroxide (1336-21-6)</td>
<td>1000 lb</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>No</td>
</tr>
</tbody>
</table>

**SARA 311/312**

- **Aqua Ammonia (1336-21-6)**
  - Immediate (acute) health hazard

**US TSCA Flags** Not present

#### US State Regulations

**California Proposition 65**

<table>
<thead>
<tr>
<th>Chemical Name (CAS No.)</th>
<th>Carcinogenicity</th>
<th>Developmental Toxicity</th>
<th>Female Reproductive Toxicity</th>
<th>Male Reproductive Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium hydroxide (1336-21-6)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**State Right-To-Know Lists**

- **Ammonium hydroxide (1336-21-6)**
  - U.S. - Massachusetts - Right To Know List - Yes
  - U.S. - New Jersey - Right to Know Hazardous Substance List - Yes
  - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List - Yes
  - U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances - No
  - U.S. - Pennsylvania - RTK (Right to Know) List - Yes

#### Canadian Regulations

- **Ammonium hydroxide (1336-21-6)**
  - Listed on the Canadian DSL (Domestic Substances List)
  - Not listed on the Canadian NDSL (Non-Domestic Substances List)

#### International Inventories/Lists

<table>
<thead>
<tr>
<th>Chemical Name (CAS No.)</th>
<th>Australia AICS</th>
<th>Turkey CICR</th>
<th>Korea ECL</th>
<th>EU EINECS</th>
<th>EU ELINCS</th>
<th>EU SVHC</th>
<th>EU NLP</th>
<th>Mexico INSQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium hydroxide (1336-21-6)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name (CAS No.)</th>
<th>China IECS</th>
<th>Japan ENCS</th>
<th>Japan ISHL</th>
<th>Japan PDSCL</th>
<th>Japan PRTR</th>
<th>Philippines PICCS</th>
<th>New Zealand NZIOC</th>
<th>US TSCA</th>
</tr>
</thead>
</table>

05/14/2018 EN (English US) SDS#: CHE-50425 7/9
Aqua Ammonia
Safety Data Sheet

| Ammonium hydroxide (1336-21-6) | Yes | Yes | No | Yes | No | Yes | Yes | Yes |

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date: 05/14/2018

Revision Summary

Section | Change | Date Changed
--- | --- | ---
3 | HPR Statement | 05/14/2018

Other Information: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada’s Hazardous Products Regulations (HPR).

GHS Full Text Phrases:

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Oral)</th>
<th>Acute toxicity (oral) Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Acute 1</td>
<td>Hazardous to the aquatic environment - Acute Hazard Category 1</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation Category 1</td>
</tr>
<tr>
<td>Skin Corr. 1B</td>
<td>Skin corrosion/irritation Category 1B</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity (single exposure) Category 3</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
</tbody>
</table>

NFPA 704

NFPA Health Hazard: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA Fire Hazard: 0 - Materials that will not burn under typical dire conditions.

NFPA Reactivity Hazard: 0 - Material that in themselves are normally stable, even under fire conditions.

HMIS Rating

Health: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability: 0 Minimal Hazard

Physical: 0 Minimal Hazard

PPE: See Section 8

Abbreviations and Acronyms

AICS – Australian Inventory of Chemical Substances
ACGIH – American Conference of Governmental Industrial Hygienists
AIHA – American Industrial Hygiene Association
ATE - Acute Toxicity Estimate
BCF  - Bioconcentration factor
BEI - Biological Exposure Indices (BEI)
CAS No. - Chemical Abstracts Service number
CERCLA RQ - Comprehensive Environmental Response, Compensation, and Liability Act - Reportable Quantity
CICR - Turkish Inventory and Control of Chemicals
ECSC - Median effective concentration
ECL - Korea Existing Chemicals List
EINECS - European Inventory of Existing Commercial Chemical Substances
ELINCS - European List of Notified Chemical Substances
EmS - IMDG Emergency Schedule Fire & Spillage
ENCs - Japanese Existing and New Chemical Substances Inventory
EPA – Environmental Protection Agency
EINECS - European Inventory of Existing Commercial Chemical Substances
ELINCS - European List of Notified Chemical Substances
EmS - IMDG Emergency Schedule Fire & Spillage
ENCs - Japanese Existing and New Chemical Substances Inventory
EPA – Environmental Protection Agency
LCSO - Median Lethal Concentration
LD50 - Median Lethal Dose
LOAE - Lowest Observed Adverse Effect Level
LOEC - Lowest-observed-effect Concentration
Log Pow - Octanol/water Partition Coefficient
Identification of the Hazards of Materials for Emergency Response
NIOHS - National Institute for Occupational Safety and Health
NLP - Europe No Longer Polymers List
NOAEL - No-Observed Adverse Effect Level
NOEC - No-Observed Effect Concentration
NZIOC - New Zealand Inventory of Chemicals
OEL - Occupational Exposure Limits
PRTR Japa - Japan Pollutant Release and Transfer Register
Aqua Ammonia
Safety Data Sheet

Handle product with due care and avoid unnecessary contact. This information is supplied under U.S. OSHA’S “Right to Know” (29 CFR 1910.1200) and Canada’s WHMIS regulations. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The information contained herein is based on data available to us and is believed to be true and accurate but it is not offered as a product specification. No warranty, expressed or implied, regarding the accuracy of this data, the hazards connected with the use of the product, or the results to be obtained from the use thereof, is made and Chemtrade and its affiliates assume no responsibility. Chemtrade is a member of the CIAC (Chemistry Industry Association of Canada) and adheres to the codes and principles of Responsible Care™.