# SAFETY DATA SHEET



## 1. IDENTIFICATION

**Product identifier**
**Product Name** Ammonium Hydroxide Solution 10%

**Other means of identification**
**Product Code(s)** 1473632

**Safety data sheet number** M00693

**Recommended use of the chemical and restrictions on use**
**Recommended Use** Laboratory reagent.
**Uses advised against** None.
**Restrictions on use** None.

**Details of the supplier of the safety data sheet**

**Manufacturer Address**
Hach Company P.O.Box 389 Loveland,
CO 80539 USA +1(970) 669-3050

**Emergency telephone number**
+1(303) 623-5716 - 24 Hour Service +1(515)232-2533 - 8am - 4pm CST

## 2. HAZARDS IDENTIFICATION

**Classification**

**Regulatory Status**
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|---|---|
| Skin corrosion/irritation | Category 1 |
| Serious eye damage/eye irritation | Category 1 |

**Hazards not otherwise classified (HNOC)**
Not applicable

**Label elements**

**Signal word - Danger**

**Hazard statements**
H314 - Causes severe skin burns and eye damage

**Precautionary statements**
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P363 - Wash contaminated clothing before reuse
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P405 - Store locked up
P501 - Dispose of contents/ container to an approved waste disposal plant
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P310 - Immediately call a POISON CENTER or doctor/physician

**Other Information**
Toxic to aquatic life

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**
Not applicable

**Mixture**

**Percent ranges are used where confidential product information is applicable.**

| Chemical name | CAS No | Percent Range | HMRIC # |
|---|---|---|---|
| **Ammonium hydroxide** | 1336-21-6 | 3 - 7% | - |

## 4. FIRST AID MEASURES

**Description of first aid measures**

**General advice** See section 8 for PPE that may be required during handling. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). If no local exhaust use approved fume hood and/or respirator. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. Remove from exposure, lie down. Immediate medical attention is required. IF IN EYES: Flush eyes for at least 15 minutes. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

**Eye contact** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

**Skin contact** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.

**Inhalation** IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a physician immediately.

**Ingestion** IF SWALLOWED: Rinse Mouth. Do NOT induce vomiting. Call a physician immediately.

**Self-protection of the first aider** First aider: Pay attention to self-protection. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** See Section 11: TOXICOLOGICAL INFORMATION.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Water. Carbon dioxide. Dry chemical.

**Unsuitable extinguishing media** Caution: Use of water spray when fighting fire may be inefficient.

**Flammable properties**
Substance does not burn.

**Specific hazards arising from the chemical**
The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

**Hazardous combustion products** This material will not burn.

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**U.S. Notice** Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Evacuate personnel to safe areas. Do not touch or walk through spilled material. Ventilate affected area. Use personal protective equipment as required.

**For emergency responders** Use personal protection recommended in Section 8.

**Environmental precautions**

**Environmental precautions** Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up** Neutralize spill if necessary. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Dispose of in accordance with local, state and federal regulations or laws.

**Emergency Response Guide Number** Not applicable

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

**Flammability class** Not applicable

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

**Legend** See section 16 for terms and abbreviations

**Appropriate engineering controls**

| | |
|---|---|
| **Engineering Controls** | If no local exhaust use approved fume hood or self-contained breathing apparatus<br>If no local exhaust use approved fume hood and/or respirator<br>Showers<br>Eyewash stations |

**Individual protection measures, such as personal protective equipment**

| | |
|---|---|
| **Eye/face protection** | Wear tight sealing safety goggles and/or face protection shield. Avoid contact with eyes. |
| **Skin and body protection** | Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. |
| **Respiratory protection** | Do not breathe gas/fumes/vapor/spray. If no local exhaust use approved fume hood and/or respirator. In case of inadequate ventilation wear respiratory protection. |
| **General Hygiene Considerations** | Avoid breathing (dust, vapor, mist, gas). Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear suitable gloves and eye/face protection. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feeding stuffs. Regular cleaning of equipment, work area and clothing is recommended. Handle in accordance with good industrial hygiene and safety practice. Avoid prolonged or repeated contact with skin. Take off all contaminated clothing and wash it before reuse. |

**Environmental exposure controls**
Do not allow into any sewer, on the ground or into any body of water. Local authorities should be advised if significant spillages cannot be contained.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

| | |
|---|---|
| **Physical state** | Liquid |
| **Gas Under Pressure** | Not classified according to GHS criteria |

| | | | |
|---|---|---|---|
| **Appearance** | aqueous solution | **Color** | colorless |
| **Odor** | Ammonia | **Odor threshold** | No data available |

| Property | Values | Remarks • Method |
|---|---|---|
| **Molecular weight** | No data available | |
| **pH** | 11.8 | |
| **Melting point/freezing point** | ~ -6 °C / 21 °F | Estimation based on theoretical calculation |
| **Boiling point / boiling range** | 100 °C / 212 °F | |
| **Evaporation rate** | 1.41 (water = 1) | |
| **Vapor pressure** | 23.177 mm Hg / 3.09 kPa at 25 °C / 77 °F | Estimation based on theoretical calculation |
| **Vapor density (air = 1)** | 0.64 (air = 1) | |

| | |
|---|---|
| **Specific gravity (water = 1 / air = 1)** | 0.963 |
| **Partition Coefficient (n-octanol/water)** | Not applicable |
| **Soil Organic Carbon-Water Partition Coefficient** | Not applicable |
| **Autoignition temperature** | No data available |
| **Decomposition temperature** | No data available |
| **Dynamic viscosity** | No data available |
| **Kinematic viscosity** | No data available |

**Solubility(ies)**

**Water solubility**

| Water solubility classification | Water solubility | Water Solubility Temperature |
|---|---|---|
| Soluble | > 1000 mg/L | 25 °C / 77 °F |

**Solubility in other solvents**

| Chemical Name | Solubility classification | Solubility | Solubility Temperature |
|---|---|---|---|
| Acid | Soluble | > 1000 mg/L | 25 °C / 77 °F |

**Other Information**

| | |
|---|---|
| **Metal Corrosivity** | Not classified as corrosive to metal according to GHS criteria |
| **Steel Corrosion Rate** | 0.03 mm/yr / 0 in/yr |
| **Aluminum Corrosion Rate** | 2.34 mm/yr / 0.09 in/yr |
| **Bulk density** | Not applicable |
| **Explosive properties** | Not classified according to GHS criteria. |
| **Explosion data** | No data available |
| **Upper explosion limit** | No data available |
| **Lower explosion limit** | No data available |
| **Flammable properties** | Not classified as flammable according to GHS criteria. |
| **Flammability Limit in Air** | |
| **Upper flammability limit:** | No data available |
| **Lower flammability limit:** | No data available |
| **Flash point** | No data available |
| **Method** | No information available |
| **Oxidizing properties** | Not classified according to GHS criteria. |
| **Reactivity propeties** | Not classified as self-reactive, pyrophoric, self-heating or emitting |

flammable gases in contact with water according to GHS criteria.

## 10. STABILITY AND REACTIVITY

**Reactivity propeties**
Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria

**Chemical stability**
Stable under recommended storage conditions.

**Special dangers of the product**
None reported

**Possibility of Hazardous Reactions**
None under normal processing.

**Hazardous polymerization** Hazardous polymerization does not occur.

**Conditions to avoid**
Extremes of temperature and direct sunlight. Incompatible materials.

**Incompatible materials**
Strong oxidizing agents. Strong acids. Strong bases.

**Hazardous Decomposition Products**
Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Explosive properties**
Not classified according to GHS criteria.

**Upper explosion limit** No data available

**Lower explosion limit** No data available

**Autoignition temperature**
No data available

**Sensitivity to Static Discharge**
None reported

**Sensitivity to Mechanical Impact**
None reported

## 11. TOXICOLOGICAL INFORMATION

**NIOSH (RTECS) Number** None reported

**Information on Likely Routes of Exposure**

| | |
|---|---|
| **Product Information** | Corrosive to skin. Corrosive to eyes. |
| **Inhalation** | Causes burns. Corrosive by inhalation. |
| **Eye contact** | Corrosive to the eyes and may cause severe damage including blindness. Causes burns. |
| **Skin contact** | Cause severe skin burns and eye damage. Causes burns. |
| **Ingestion** | Ingestion causes burns of the upper digestive and respiratory |

| | |
|---|---|
| | tracts. Causes burns. |
| **Aggravated Medical Conditions** | Eye disorders. Skin disorders. Respiratory disorders. |
| **Toxicologically synergistic products** | None known. |
| **Toxicokinetics, metabolism and distribution** | See ingredients information below. |

| Chemical name | Toxicokinetics, metabolism and distribution |
|---|---|
| Ammonium hydroxide (3 - 7%) CAS#: 1336-21-6 | Ammonia is enzymatically converted to urea in mammals and thus enters urea cycle. Fish and amphibians lack that mechanism. |

**Product Acute Toxicity Data**

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

**Acute Toxicity Estimations (ATE)**

**The following values are calculated based on chapter 3.1 of the GHS document**

| | |
|---|---|
| **ATEmix (oral)** | 7,261.00 mg/kg |

**Ingredient Acute Toxicity Data**

**Oral Exposure Route** If available, see data below

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Ammonium hydroxide (3 - 7%) CAS#: 1336-21-6 | Rat $LD_{50}$ | 350 mg/kg | None reported | None reported | Vendor SDS |

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** If available, see data below

**Inhalation (Gas) Exposure Route** No data available

**Product Specific Target Organ Toxicity Single Exposure Data**

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

**Ingredient Specific Target Organ Toxicity Single Exposure Data**

**Oral Exposure Route** If available, see data below

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** If available, see data below

**Inhalation (Gas) Exposure Route** No data available

**Aspiration toxicity**
No data available

**Product Skin Corrosion/Irritation Data**
No data available.

**Ingredient Skin Corrosion/Irritation Data**
If available, see data below

| Chemical name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|
| Ammonium hydroxide (3 - 7%) CAS#: 1336-21-6 | Existing human experience | Human | None reported | None reported | Corrosive to skin | HSDB (Hazardous Substances Data Bank) |

**Product Serious Eye Damage/Eye Irritation Data**
No data available.

**Ingredient Eye Damage/Eye Irritation Data**
If available, see data below

| Chemical name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|
| Ammonium hydroxide (3 - 7%) CAS#: 1336-21-6 | Standard Draize Test | Rabbit | 0.044 mg | None reported | Corrosive to eyes | RTECS (Registry of Toxic Effects of Chemical Substances) |

**Sensitization Information**

**Product Sensitization Data**

**Skin Sensitization Exposure Route** No data available.

**Respiratory Sensitization Exposure Route** No data available.

**Ingredient Sensitization Data**

**Skin Sensitization Exposure Route** No data available.

**Respiratory Sensitization Exposure Route** No data available.

**Chronic Toxicity Information**

**Product Specific Target Organ Toxicity Repeat Dose Data**

**Oral Exposure Route** No data available.

**Dermal Exposure Route** No data available.

**Inhalation (Dust/Mist) Exposure Route** No data available.

**Inhalation (Vapor) Exposure Route** No data available.

**Inhalation (Gas) Exposure Route** No data available.

**Ingredient Specific Target Organ Toxicity Repeat Exposure Data**

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

| Chemical name | CAS No | ACGIH | IARC | NTP | OSHA |
|---|---|---|---|---|---|
| Ammonium hydroxide | 1336-21-6 | - | - | - | - |

**Legend**

| | |
|---|---|
| **ACGIH (American Conference of Governmental Industrial Hygienists)** | Does not apply |
| **IARC (International Agency for Research on Cancer)** | Does not apply |
| **NTP (National Toxicology Program)** | Does not apply |
| **OSHA (Occupational Safety and Health Administration of the US Department of Labor)** | Does not apply |

**Product Carcinogenicity Data** No data available

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

**Ingredient Carcinogenicity Data**

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

**Product Germ Cell Mutagenicity** *invitro* **Data**
No data available.

**Ingredient Germ Cell Mutagenicity** *invitro* **Data** No data available

| | |
|---|---|
| **Oral Exposure Route** | No data available |
| **Dermal Exposure Route** | No data available |
| **Inhalation (Dust/Mist) Exposure Route** | No data available |
| **Inhalation (Vapor) Exposure Route** | No data available |
| **Inhalation (Gas) Exposure Route** | No data available |

**Ingredient Germ Cell Mutagenicity** *invivo* **Data**

| | |
|---|---|
| **Oral Exposure Route** | No data available |
| **Dermal Exposure Route** | No data available |
| **Inhalation (Dust/Mist) Exposure Route** | No data available |
| **Inhalation (Vapor) Exposure Route** | No data available |
| **Inhalation (Gas) Exposure Route** | No data available |
| **Oral Exposure Route** | No data available |
| **Dermal Exposure Route** | No data available |
| **Inhalation (Dust/Mist) Exposure Route** | No data available |
| **Inhalation (Vapor) Exposure Route** | No data available |
| **Inhalation (Gas) Exposure Route** | No data available |

**Ingredient Reproductive Toxicity Data**

| | |
|---|---|
| **Oral Exposure Route** | No data available |
| **Dermal Exposure Route** | No data available |
| **Inhalation (Dust/Mist) Exposure Route** | No data available |
| **Inhalation (Vapor) Exposure Route** | No data available |
| **Inhalation (Gas) Exposure Route** | No data available |

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Toxic to aquatic life.

**Product Ecological Data**

**Aquatic toxicity**

| | |
|---|---|
| **Fish** | No data available |
| **Crustacea** | No data available |
| **Algae** | No data available |

**Terrestrial toxicity**

**Soil** No data available

**Vertebrates** No data available

**Invertebrates** No data available

**Ingredient Ecological Data**

**Aquatic toxicity**

**Fish** If available, see ingredient data below

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| Ammonium hydroxide (3 - 7%) CAS#: 1336-21-6 | 96 hours | *Oncorhynchus kisutch* | $LC_{50}$ | 0.45 mg/L | PEEN (Pan European Ecological Network) |
| **Chemical name** | **Exposure time** | **Species** | **Endpoint type** | **Reported dose** | **Key literature references and sources for data** |
| Ammonium hydroxide (3 - 7%) CAS#: 1336-21-6 | 48 hours | *Lepomis macrochirus* | $LC_{50}$ | 0.024 mg/L | PEEN (Pan European Ecological Network) |

**Crustacea** If available, see ingredient data below

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| Ammonium hydroxide (3 - 7%) CAS#: 1336-21-6 | 48 Hours | *Daphnia magna* | $LC_{50}$ | 0.66 mg/L | PEEN (Pan European Ecological Network) |
| **Chemical name** | **Exposure time** | **Species** | **Endpoint type** | **Reported dose** | **Key literature references and sources for data** |
| Ammonium hydroxide (3 - 7%) CAS#: 1336-21-6 | 50 hours | *Daphnia magna* | $LC_{50}$ | 32 mg/L | PEEN (Pan European Ecological Network) |

**Algae** No data available

**Terrestrial toxicity**

**Soil** No data available

**Vertebrates** No data available

**Invertebrates** No data available

**Other Information**

**Canadian Environmental Protection Act (CEPA) - Domestic Substances List (DSL): Environmentally Hazardous Substances Categorizations**

| Chemical name | Category | Persistent | Bioaccumulation | Inherently Toxic to Aquatic Organisms |
|---|---|---|---|---|
| Ammonium hydroxide (3 - 7%) CAS#: 1336-21-6 | Inorganics | Yes | No | Yes |

**Persistence and degradability**
None known.

**Product Biodegradability Data**
If available, see ingredient data below.

**Ingredient Biodegradability Data**
Test data reported below

| Chemical name | Test method | Biodegradation | Exposure time | Results |
|---|---|---|---|---|
| Ammonium hydroxide (1 - 5%) CAS#: 1336-21-6 | None reported | None reported | None reported | Readily biodegradable |

**Bioaccumulation**
Does not have the potential to bioaccumulate according to GHS criteria.

**Product Bioaccumulation Data** No data available.

**Ingredient Bioaccumulation Data** No data available

**Additional information**

**Product Information**

**Partition Coefficient (n-octanol/water)** Not applicable

**Ingredient Information**

**Mobility**
Mobility in soil: High mobility. If available, see ingredient data below.

**Product Information**

**Soil Organic Carbon-Water Partition Coefficient** Not applicable

**Ingredient Information** No data available

**Additional information**

**Water solubility**

**Product Information**

| Water solubility classification | Water solubility | Water Solubility Temperature |
|---|---|---|
| Soluble | > 1000 mg/L | 25 °C / 77 °F |

**Ingredient Information**

| Chemical name | Water solubility classification | Water solubility | Water solubility temperature °C | Water solubility temperature °F |
|---|---|---|---|---|
| Ammonium hydroxide CAS#: 1336-21-6 | Soluble | > 1000 mg/L | 25 °C | 77 °F |

**Other adverse effects**
No information available.

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Disposal of wastes** Disposal should be in accordance with applicable regional, national, and local laws and regulations.

**Contaminated packaging** Do not reuse container.

**Special instructions for disposal** Dilute material with excess water making a weaker than 5% solution. Adjust to a pH between 6 and 9 with an acid, such as sulfuric or citric. Open cold water tap completely, slowly pour the reacted material to the drain. Allow cold water to run for 5 minutes to completely flush the system.

## 14. TRANSPORT INFORMATION

**U.S. DOT** Not regulated

**TDG** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

**Additional information**
There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.
If the item is part of a reagent set or kit the classification would change to the following:
UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.
If the item is not regulated, the Chemical Kit classification does not apply.

## 15. REGULATORY INFORMATION

**National Inventories**

| | |
|---|---|
| **TSCA** | Complies |
| **DSL/NDSL** | Complies |

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**International Inventories**

| | |
|---|---|
| **EINECS/ELINCS** | Complies |
| **ENCS** | Complies |
| **IECSC** | Complies |
| **KECL** | Complies |
| **PICCS** | Complies |
| **TCSI** | Complies |
| **AICS** | Complies |
| **NZIoC** | Complies |

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
**ENCS** - Japan Existing and New Chemical Substances
**IECSC** - China Inventory of Existing Chemical Substances
**KECL** - Korean Existing and Evaluated Chemical Substances
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**TCSI** - Taiwan Chemical Substances Inventory
**AICS** - Australian Inventory of Chemical Substances
**NZIoC** - New Zealand Inventory of Chemicals

## US Federal Regulations

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical name | SARA 313 - Threshold Values % |
|---|---|
| Ammonium hydroxide (CAS #: 1336-21-6) | 1.0 |

**SARA 311/312 Hazard Categories**

| | |
|---|---|
| **Acute health hazard** | Yes |
| **Chronic Health Hazard** | Yes |
| **Fire hazard** | No |
| **Sudden release of pressure hazard** | No |
| **Reactive Hazard** | No |

**CWA (Clean Water Act)**
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|---|---|---|---|
| Ammonium hydroxide 1336-21-6 | 1000 lb | - | - | X |

**CERCLA**
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

| Chemical name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|---|---|---|---|
| Ammonium hydroxide 1336-21-6 | 1000 lb | - | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |

## US State Regulations

**California Proposition 65**
This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---|---|---|---|
| Ammonium hydroxide 1336-21-6 | X | X | X |

**U.S. EPA Label Information**
**EPA Pesticide Registration Number** Not applicable

## 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

**Special Comments**
None

**Additional information**

**Global Automotive Declarable Substance List (GADSL)**
Not applicable

**NFPA and HMIS Classifications**

| | | | | |
|---|---|---|---|---|
| **NFPA** | **Health hazards** - 3 | **Flammability** - 0 | **Instability** - 0 | **Physical and Chemical Properties** - |
| **HMIS** | **Health hazards** - 3 | **Flammability** - 0 | **Physical Hazards** - 0 | **Personal protection** - X - See section 8 for more information |

**Key or legend to abbreviations and acronyms used in the safety data sheet**

| | |
|---|---|
| *NIOSH IDLH* | *Immediately Dangerous to Life or Health* |
| ACGIH | ACGIH (American Conference of Governmental Industrial Hygienists) |
| *NDF* | *no data* |

**Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

| | | | |
|---|---|---|---|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| MAC | Maximum Allowable Concentration | Ceiling | Ceiling Limit Value |
| X | Listed | Vacated | These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations. |
| SKN* | Skin designation | SKN+ | Skin sensitization |
| RSP+ | Respiratory sensitization | ** | Hazard Designation |
| C | Carcinogen | R | Reproductive toxicant |
| M | mutagen | | |

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**Revision Note** None

**Disclaimer**

**USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.**

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.**

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**End of Safety Data Sheet**