



Health	2
Fire	0
Reactivity	0
Personal Protection	H

# Material Safety Data Sheet

## Aluminum Hydroxide Suspension for Chloride MSDS

### Section 1: Chemical Product and Company Identification

**Product Name:** Aluminum Hydroxide Suspension for Chloride

**Catalog Codes:** SLA2161

**CAS#:** Mixture.

**RTECS:** Not applicable.

**TSCA:** TSCA 8(b) inventory: Ammonium hydroxide; Water

**CI#:** Not applicable.

**Synonym:** Aluminum Hydroxide Suspension

**Chemical Name:** Not applicable.

**Chemical Formula:** Not applicable.

**Contact Information:**

**Sciencelab.com, Inc.**

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: [ScienceLab.com](http://ScienceLab.com)

**CHEMTREC (24HR Emergency Telephone), call:**

1-800-424-9300

**International CHEMTREC, call:** 1-703-527-3887

**For non-emergency assistance, call:** 1-281-441-4400

### Section 2: Composition and Information on Ingredients

**Composition:**

Name	CAS #	% by Weight
Aluminum potassium sulfate	7784-24-9	12.5
Ammonia, anhydrous	7664-41-7	1.49-1.71
Water	7732-18-5	85.8-86

**Toxicological Data on Ingredients:** Ammonia, anhydrous: GAS (LC50): Acute: 2000 ppm 4 hours [Rat]. 4230 ppm 1 hours [Mouse].

### Section 3: Hazards Identification

**Potential Acute Health Effects:**

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Severe over-exposure can result in death.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. [Ammonia, anhydrous]. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to mucous membranes, skin, eyes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

## Section 4: First Aid Measures

### Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention. Finish by rinsing thoroughly with running water to avoid a possible infection.

### Skin Contact:

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

### Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

### Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Serious Inhalation:** Not available.

### Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

**Serious Ingestion:** Not available.

## Section 5: Fire and Explosion Data

**Flammability of the Product:** Non-flammable.

**Auto-Ignition Temperature:** Not applicable.

**Flash Points:** Not applicable.

**Flammable Limits:** Not applicable.

**Products of Combustion:** Not available.

**Fire Hazards in Presence of Various Substances:** Not applicable.

**Explosion Hazards in Presence of Various Substances:** Non-explosive in presence of open flames and sparks, of shocks.

**Fire Fighting Media and Instructions:** Not applicable.

**Special Remarks on Fire Hazards:** Not available.

### Special Remarks on Explosion Hazards:

A sudden increase in temperature and pressure preceded a violent explosion when heating 1-chloro-2,4-dinitrobenzene and ammonia in a direct fired autoclave. Reaction with liquid ammonia and chlorine azide gives an explosive yellow liquid. Liquid ammonia + 1,2 dichloroethane may explode. Passing ammonia gas over magnesium perchlorate dessicant causes intensive drying of ammonia gas which leads to an exotherm, followed by a violent explosion. Ammonia is capable of reacting with some heavy metal compounds (gold, silver, mercury) to produce materials, some of uncertain constitution, which may explode violently when dry. Action of ammonia or ammonium salts on gold (III) chloride, oxide or other salts under a variety of conditions gives explosive or "fulminating" gold. Halogens or interhalogens + ammonia either reacts violently or produces explosive products. Ammonia + nitrogen trichloride produces endothermic and explosive nitrogen trichloride. Reaction of ammonia + selenium difluoride dioxide is violent and many of the products and derivatives are both shock and heat sensitive explosives. These include ammonium, potassium silver and thallium salts of the "triselenimidate" ion. Violent explosions with ammonia + nitrogen oxide can occur in ammonia synthesis gas units. Liquid ammonia + solid dinitrogen tetraoxide reacts explosively. Oxygen + Platinum: oxidation of ammonia to nitric acid over platinum catalysts, substitution of oxygen for air

## Section 6: Accidental Release Measures

### Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

### Large Spill:

Poisonous liquid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of acetic acid. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

## Section 7: Handling and Storage

### Precautions:

Keep locked up.. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F).

## Section 8: Exposure Controls/Personal Protection

### Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

### Personal Protection:

Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

### Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### Exposure Limits:

Ammonia, anhydrous TWA: 17 STEL: 24 (mg/m<sup>3</sup>) from ACGIH (TLV) [United States] Inhalation TWA: 25 STEL: 35 (ppm) from ACGIH (TLV) [USA] Inhalation TWA: 50 (ppm) from OSHA (PEL) [USA] Inhalation TWA: 35 (mg/m<sup>3</sup>) from OSHA (PEL) [USA] Inhalation TWA: 25 STEL: 35 (ppm) [United Kingdom (UK)] Inhalation TWA: 18 STEL: 15 (mg/m<sup>3</sup>) [United Kingdom (UK)] Inhalation Consult local authorities for acceptable exposure limits.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Liquid.

**Odor:** Not available.

**Taste:** Not available.

**Molecular Weight:** Not applicable.

**Color:** Not available.

**pH (1% soln/water):** Basic.

**Boiling Point:** The lowest known value is 100°C (212°F) (Water).

**Melting Point:** Not available.

**Critical Temperature:** Not available.

**Specific Gravity:** Weighted average: 1.05 (Water = 1)

**Vapor Pressure:** The highest known value is 2.3 kPa (@ 20°C) (Water).

**Vapor Density:** The highest known value is 0.62 (Air = 1) (Water).

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water, methanol, diethyl ether.

**Solubility:**

Easily soluble in cold water, hot water. Soluble in methanol, diethyl ether.

### Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Incompatible materials

**Incompatibility with various substances:** Slightly reactive to reactive with oxidizing agents, metals, acids, alkalis.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:**

Incompatible with strong oxidizing agents, bases, and metals (steel, aluminum, copper, zinc.) (Aluminum potassium sulfate)

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

### Section 11: Toxicological Information

**Routes of Entry:** Absorbed through skin. Eye contact.

**Toxicity to Animals:**

LD50: Not available. LC50: Not available.

**Chronic Effects on Humans:**

MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. [Ammonia, anhydrous]. Contains material which may cause damage to the following organs: mucous membranes, skin, eyes.

**Other Toxic Effects on Humans:**

Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Non-permeator by skin.

**Special Remarks on Toxicity to Animals:**

Lowest Published Lethal Dose LCL [Human] - Route: Inhalation; Dose: 5000 ppm/5M (Ammonia, anhydrous)

**Special Remarks on Chronic Effects on Humans:** May cause adverse reproductive effects (fetotoxicity) based on animal data. (Aluminum potassium sulfate)

**Special Remarks on other Toxic Effects on Humans:**

Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: May cause eye irritation. Inhalation: Inhalation of mist or vapor may cause respiratory tract irritation. Ingestion: May cause digestive tract irritation. The toxicological properties of this substance have not been fully investigated.

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

## Section 13: Disposal Considerations

**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## Section 14: Transport Information

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.

## Section 15: Other Regulatory Information

**Federal and State Regulations:**

Connecticut hazardous material survey.: Ammonium hydroxide Illinois toxic substances disclosure to employee act: Ammonium hydroxide Illinois chemical safety act: Ammonium hydroxide New York release reporting list: Ammonium hydroxide Pennsylvania RTK: Ammonium hydroxide Massachusetts RTK: Ammonium hydroxide Massachusetts spill list: Ammonium hydroxide New Jersey: Ammonium hydroxide New Jersey spill list: Ammonium hydroxide New Jersey toxic catastrophe prevention act: Ammonium hydroxide Louisiana spill reporting: Ammonium hydroxide TSCA 8(b) inventory: Ammonium hydroxide; Water CERCLA: Hazardous substances.: Ammonium hydroxide: 1000 lbs. (453.6 kg);

**Other Regulations:** OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

**Other Classifications:**

**WHMIS (Canada):** Not controlled under WHMIS (Canada).

**DSCL (EEC):**

This product is not classified according to the EU regulations. Not applicable.

**HMIS (U.S.A.):**

**Health Hazard:** 2

**Fire Hazard:** 0

**Reactivity:** 0

**Personal Protection:** h

**National Fire Protection Association (U.S.A.):**

**Health:** 1

**Flammability:** 0

**Reactivity:** 0

**Specific hazard:****Protective Equipment:**

Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

**Section 16: Other Information**

**References:** Not available.

**Other Special Considerations:** Not available.

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