

Ammonium Hydroxide

Revision Date 01-15-2015

Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Ammonium Hydroxide, ~30%
Product code: 3535, 3535-G

Supplier: Astral Diagnostics Inc.
1224 Forest Parkway
Suite 200
West Deptford, NJ 08066
856.224.0900

Synonym: None.
Material uses: Laboratory Reagent.
Validation date: 3/25/2015
In case of emergency: 800-424-9300 CHEMTREC (USA)
24 Hours/Day: 7 Days/Week

2. HAZARDS IDENTIFICATION

GHS Classification

Skin Corrosion (Category 1A), H314
Serious Eye Damage (Category 1), H318

H314 Cause severe skin and eye damage
H318 Causes serious eye damage

GHS Label Elements: Pictogram



Signal Word

Danger!

Potential Acute Health Effects:

Very hazardous in case of contact with eye, skin, ingestion and inhalation. Liquid or spray mist may produce tissue damage especially mucous membranes of eyes, mouth and respiratory tract. Will burn eyes and skin on contact. Respiratory track characterized by coughing, choking and shortness of breath. Inflammation of eyes results in redness, watering and itching. Skin contact results in scaling, redness or blistering.

Potential Chronic Health Effects:

Carcinogenic Effects, NA; Mutagenic Effects, mutagenic for mammalian somatic cells, bacterial and/or yeast; Teratogenic Effects, NA; Developmental Toxicity, NA. May be toxic to kidneys, mucous membranes, skin and teeth.

Precautionary statement(s):

If in eyes or skin: Rinse with water for several minutes. Remove contact lenses, if present and rinse again.

Target Organs

Respiratory Tract

NFPA Rating

Health hazard: 3
Fire: 0

HMIS Classification

Health hazard: 3
Flammability: 0

Reactivity Hazard: 0

Physical hazards: 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Name | CAS number | % by volume |
|--------------------|------------|-------------|
| Ammonium Hydroxide | 1336-21-6 | 30 |
| Water | 7732-18-5 | Balance |

4. FIRST AID MEASURES

- Eye contact:** Check for and remove any contact lenses. Immediately flush eyes with water for 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact:** Flush skin with water for 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation:** Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion:** Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Flammability of the product: Flammable

Extinguishing media: Use suitable media for surrounding materials. If water use fog spray, avoid direct stream.

Special exposure hazards: Avoid contact with strong oxidizers

Decomposition products: Decomposition products: carbon dioxide, carbon monoxide, nitrogen oxides

Special protective equipment for fire-fighters: Use self-contained breathing apparatus if necessary.

Explosion hazards: Not-applicable

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Keep unnecessary and unprotected personnel from entering area. Avoid breathing vapors. Provide adequate ventilation. Do not touch or walk through spilled material. Eliminate sources of ignition.

Environmental precautions: Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Contain spill area.

Spill: Prevent runoff. Contain and collect spillage with absorbent material e.g. sand, earth, vermiculite etc and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Dilute with water and mop-up or absorb with an inert dry material and place in an appropriate waste disposal container. Avoid contact with strong oxidizers.

7. HANDLING AND STORAGE

Handling: Avoid breathing vapors or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store in ventilated areas.

Storage: Store in a well-ventilated, cool area. Keep container tightly closed and sealed until ready for use. Storage class, corrosive liquid

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits:

ACGIH TLV: TWA, 25ppm, STEL35ppm

OSHA PEL: TWA: 25ppm, STEL35ppm

NIOSH REL: TWA: 25ppm, STEL35ppm

Carcinogenicity: IRAC, ACIGH, NTP, OSHA No component of this product at levels $\geq 0.1\%$ is identified as a carcinogen

Engineering measures: Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne concentrations below any recommended threshold limits.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating and using the lavatory. Wash contaminated clothing before reusing.

Personal protection

Respiratory: If used in poorly ventilated areas, use a properly fitted, air-purifying or air-fed respirator complying with an approved standard. Respirator selection must be based on known or anticipated exposure levels.

Hands: Chemical-resistant neoprene gloves

Eyes: Safety eyewear; splash goggles, face shield

Skin: Lab coats for personal protective equipment and should be approved by a specialist before handling this product. Depending on volume/conditions a full acid suit, flame retardant, antistatic may be necessary.

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|--------------------------------|---|------------------------------------|----------------|
| Physical state: | Liquid | Color: | Clear |
| Flash Point: | NA | Odor: | Strong ammonia |
| pH: | 1% Solution ~11.6 | Boiling/condensation point: | NA |
| Melting/freezing point: | NA | Relative density: | ~0.9 |
| Vapor pressure: | NA | Vapor density: | NA |
| Odor threshold: | 5 to 50ppm | Evaporation rate: | NA |
| VOC: | NA | | |
| Solubility: | Soluble in the following materials: water | | |

10. STABILITY AND REACTIVITY

Chemical stability: The product is stable under normal conditions.

Possibility of hazardous reactions:

Under normal conditions of storage and use, hazardous reactions will not occur.

Hazardous polymerization: Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid: Poor ventilation

Materials to avoid: Reactive or incompatible with: oxidizing materials, metals and acids.

Hazardous decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50-Rat 3,310mg/kg

Inhalation LC50, Mouse 1hr - 5620ppm

Dermal LD50, Rabbit 1,112 mg/kg

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Eyes: no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be toxic if inhaled. Causes respiratory tract inflammation/burns.

Ingestion Toxic if swallowed and causes burns/tissue destruction.

Skin Toxic if absorbed through skin. Causes skin irritation/blisters.

Eyes Will burn eyes on contact.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Toxicity

Very toxic to aquatic life

Persistence and degradability

Expected to be biodegradable

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT (US) UN 2672 Ammonia Solution, 8, III

IMDG UN 2672, Ammonia Solution, 8, III

IATA UN 2672, Ammonia Solution, 8, III

15. REGULATORY INFORMATION

SARA 302: No components are subject to reporting of Title III

SARA 313: No components are subject to reporting of Title III

SARA 311/312: Fire Hazard, Acute Health Hazard, Chronic Health Hazard

DEA List I Chemicals

Precursor Chemicals): Not listed

DEA List II Chemicals

Essential Chemicals):

RTK:Ammonium Hydroxide, CAS1336-21-6, MA, MN, NJ, PA

California Prop 65 Components: No components listed for causing cancer, birth defects or any reproductive harm.

WHMIS (Canada): Class B-3: Corrosive Liquid Class E: Corrosive liquid

16. OTHER INFORMATION

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



Notice to reader

This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labeling of Chemicals (GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries makes any warranty of merchantability or any other warranty, expressed or implied, which respect to such information, and we assume no liability resulting from its use. In no event shall Astral Diagnostics, Inc be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.