MSDS

Material Safety Data Sheet

Section 1: Chemical Product and Company Identification

Catalog Number:

610.5, 628, 630, 631, 631.5, 640.012, 640.24, 641, 642, A-200, A-203, A-208, A-350, A003000, R0610535, R0631100, R0640013, R0640020, R0640100, R0640200, SA002500, SA003000, SA003100

Product Identity:
AMMONIUM HYDROXIDE Aqueous Solutions, <12% (v/v), <1.4 Normal

Manufacturer's Name: RICCA CHEMICAL COMPANY LLC	**Emergency Contact(24 hr) --** CHEMTREC® Domestic: 800-424-9300 International: 703-527-3887
CAGE Code: 4TCW6, 0V553, 4XZQ2	
Address: 448 West Fork Dr Arlington, TX 76012	**Telephone Number For Information:** 817-461-5601
Date Prepared: 3/18/99	**Revision:** 19 Last Revised: 02/25/2013 Date Printed: 04/15/2014 11:11:12 pm

Section 2. Composition/Information on Ingredients

Component	CAS Registry #	Concentration	ACGIH TLV	OSHA PEL
Ammonium Hydroxide	1336-21-6	< 12 (<3.07% Ammonia)	25 ppm 17 mg/m3	50 ppm 35 mg/m3
Water, Deionized	7732-18-5	Balance	Not Available Not Available	Not Available Not Available

Section 3: Hazard Identification

Emergency Overview: This item is slightly corrosive. Use with adequate ventilation. Avoid contact with skin, eyes or clothing. Wash areas of contact with plenty of water. For eyes, get medical attention.

Target Organs: eyes, skin, respiratory system.

Eye Contact: May cause slight irritation.

Inhalation: Causes irritation of the respiratory tract. Higher concentrations can cause burns, pulmonary edema and death.

Skin Contact: May cause irritation, redness, and pain.

Ingestion: May cause corrosion to the esophagus and stomach with perforation and peritonitis.

Chronic Effects/Carcinogenicity: None

IARC - No.

NTP - No.

OSHA - No.

Reproductive Information: Not Applicable.

Teratology (Birth Defect) Information: Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Ammonium Hydroxide. Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Ammonium Hydroxide.

Section 4: First Aid Measures - In all cases, seek qualified evaluation.

Eye Contact: Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.
Inhalation: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.
Skin Contact: Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops.
Ingestion: Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

Section 5: Fire Fighting Measures

Flash Point: Not Available.
Method Used: Not Available.
LFL: Not Available.
UFL: Not Available.
Extinguishing Media: Use any means suitable for extinguishing surrounding fire.
Fire & Explosion Hazards: Flammable vapors may accumulate in confined spaces.
Fire Fighting Instructions: Use normal procedures/instructions.
Fire Fighting Equipment: Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

Section 6: Accidental Release Measures

Ventilate area of leak or spill. Cover spill with a 1:1:1 mixture by weight of Sodium Carbonate or Calcium Carbonate, clay and sand. Scoop mixture into a plastic container and, in the fume hood, add to a pail of cold water. Neutralize this mixture with 5% Hydrochloric Acid, let stand overnight, then pour the liquid into the drain while flushing with water. Dispose of any solid with normal refuse. Wash the area of the spill with plenty of water.

Section 7. Handling and Storage

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Store below 25°C. Empty containers may be hazardous since they retain product residues.
Safety Storage Code: General

Section 8: Exposure Control/Personal Protection

Engineering Controls: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit .
Respiratory Protection: If the TLV is exceeded, a full-face chemical cartridge respirator may be worn up to 50 times the TLV or the maximum use concentration specified by the respirator supplier, whichever is less.
Skin Protection: Chemical resistant gloves.
Eye Protection: Safety glasses or goggles.

Section 9: Physical and Chemical Properties

Appearance: Clear, colorless liquid
Odor: mild characteristic ammonia odor
Solubility in Water: Infinite
Specific Gravity: approximately 0.9 - 1.0
pH: 10.6 - 11.6
Boiling Point(°C): Approximately 100
Melting Point(°C): Approximately 0
Vapor Pressure: 115 at 20°C

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions of use and storage.
Incompatibility: Strong oxidizers, acids, Calcium Hypochlorite bleaches, gold, mercury, silver, halogens.
Hazardous Decomposition Products: Burning may produce ammonia and nitrogen oxides.
Hazardous Polymerization: Will not occur.

Section 11. Toxicological Information

LD50, Oral, Rat: 350 mg/kg (Ammonium Hydroxide), gastrointestinal, liver, kidney, ureter, bladder changes. LDLo, Oral, Human: 43 mg/kg; LCLo, Inhalation, Human: 5000 ppm, details of toxic effects not reported other than lethal dose value.

Section 12. Ecological Information

Ecotoxicological Information: This material is expected to be very toxic to aquatic life. The LC50/96-hour values for fish are less than 1 mg/L.

Chemical Fate Information: This material is not expected to significantly bioaccumulate.

Section 13. Disposal Considerations

Ventilate area of leak or spill. Cover spill with a 1:1:1 mixture by weight of Sodium Carbonate or Calcium Carbonate, clay and sand. Scoop mixture into a plastic container and, in the fume hood, add to a pail of cold water. Neutralize this mixture with 5% Hydrochloric Acid, let stand overnight, then pour the liquid into the drain while flushing with water. Dispose of any solid with normal refuse. Wash the area of the spill with plenty of water. Always dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

Part Numbers:

This product is not regulated.

Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)

OSHA Status: These items meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

TSCA Status: All components of this solution are listed on the TSCA Inventory or are mixtures (hydrates) of items listed on the TSCA Inventory.

Sara Title III:

Section 302 Extremely Hazardous Substances: Not Applicable.

Section 311/312 Hazardous Catagories: Acute: Yes Chronic, Fire, Pressure, Reactivity: No

Section 313 Toxic Chemicals: Not Applicable.

California: None Reported.

Pennsylvania: Ammonium Hydroxide is listed as an Environmental Hazard on the state's Hazardous Substances List. Ammonium Hydroxide is listed as an Environmental Hazard on the state's Hazardous Substances List.

RCRA Status: Not Applicable.

CERCLA Reportable Quantity: Ammonium Hydroxide - 1,000 pounds. Ammonium Hydroxide - 1,000 pounds.

WHMIS: Not Applicable.

Section 16. Other Information

NFPA Ratings:

Health: 1	Flammability: 0	Reactivity: 0	Special Notice Key:None

HMIS Ratings:

Health: 1	Flammability: 0	Reactivity: 0	Protective Equipment:B (Protective Eyewear, Gloves)

Rev 1, 2-16-2000: Reformatted from WordPerfect® to Microsoft Word®; (Section 1) Revised emergency telephone number to CHEMTREC® 800-424-9300, Revised description from <11% (v/v), <1.4 Normal; (Section 2) revised % concentration to <12% (v/v), added % (w/w) NH3; (Section 7) added storage code; (Section 9) added pH range from alkaline, revised boiling and melting point values to 0 and100; (Section 16) revised ratings for health from 2 to 1 and for reactivity from 1 to 0.
Rev 2, 9-24-2001: (Section 1) added catalog number 630.
Rev 3, 10-09-2001: Reformatted to electronic data format.
Rev 4, 01-25-2002: (Section 1) added catalog number 610.5.
Rev 5, 01-28-2002: (Section 1) added catalog number 611.5.
Rev 6, 09-24-2002: (Section 1) added Solutions Plus catalog number A003000.
Rev 7, 10-26-2004: (Section 1) added catalog number R0631100.
Rev 8, 10-26-2005: (Section 1) added Red Bird catalog number A-200.
Rev 9, 12-15-2005: (Section 1) added catalog number R0640013.
Rev 10, 02-02-2006: (Section 1) added Red Bird catalog number A-208; (Section 15) added WHMIS information.
Rev 11, 03-06-2006: (Section 1) added Red Bird catalog number A-350.
Rev 12, 09-20-2006: (Section 1) added Red Bird catalog number A-203; (Section 15) revised WHMIS information.
Rev 13, 02-08-2008: (Section 1) corrected spelling of "Aqueous" in title; (Section 15) revised Section 311/312 information.
Rev 14, 04-22-2008: (Section 1) removed catalog number 611.5.
Rev 15, 09-09-2008: (Section 1) added catalog number R0640200.
Rev 16, 12-19-2008: (Section 1) added catalog number R0640100.
Rev 17, 08-18-2009: (Section 1) added catalog number R0640020.
Rev 18, 08-10-2012: Reviewed and approved for distribution.
Rev 19, 02-25-2013: (Section 1) added catalog number R0610535.

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.