


MATERIAL SAFETY DATA SHEET

79892
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MSDS No. AA 210
 Effective Date July 1, 1986

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product Name	AMMONIA SOLUTION (HOUSEHOLD)	 CHEMTREC 800-424-9300 Day 716-226-6177 Night 716-334-4222	Health	3
Chemical Name	Ammonium Hydroxide		Fire	1
Formula	NH ₄ OH	Reactivity	2	
Size	100ml. to 4 Lt.	HAZARD RATING		
No.	1336-21-6	LEAST	0	
		SLIGHT	1	
		MODERATE	2	
		HIGH	3	
		EXTREME	4	

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Hazardous Component(s)	%	TLV Units
Ammonium Hydroxide	20% as ammonia	25ppm in air as ammonia.

DANGER! MAY CAUSE BURNS - IRRITANT.
 See Section V

SECTION III PHYSICAL DATA

Boiling Point (°F)	Approx. -77°C.	Specific Gravity (40°F)	0.897 (liquid)
Melting Point (°F)	Liberalizes ammonia gas on heating.	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	755 @ 26.7°C (Total)	Evaporation Rate (other = 1)	< 1
Vapor Density (Air = 1)	0.596 Ammonia Gas 15.6%		

Stability in Water: Complete (initial condition, shifting as ammonia is lost.)

Appearance and Odor: Water white liquid; strong, pungent ammonia odor.

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (°C)	Liquid not flammable (NA).	Flammable Limits in Air (%)	Lower 16	Upper 25
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Use any media for extinguishing the supporting fire.

SECTION V SPECIAL FIREFIGHTING PROCEDURES

Wear full protective clothing with respirator mask having ammonia vapor canister.

SECTION VI VISUAL FIRE AND EXPLOSION HAZARDS

Dangerous fire hazard; emits irritating fumes and liquid can inflict burns. Ammonium hydroxide is non-combustible and non-explosive, but ammonia vapors released from solution can form an explosive mixture with air.

SECTION VII CORROSIVE MATERIAL.

Reproduced by U. S. Dept. of Labor "essentially similar" to form OSHA-20

SECTION V HEALTH HAZARD DATA

Threshold Limited Value
 TLV: 50ppm (Ammonia gas); Oral Rat-LD₅₀ 350 mg/kg.

Effects of Overexposure

Causes severe irritation or burns to eyes, skin and mucous membranes; highly toxic by oral and inhalation routes. Inhalation of gas causes edema, spasm, and asphyxia. **POISON.**

Emergency and First Aid Procedures

EXTERNAL: Flood with water, then wash with vinegar. **FOR EYES:** Flush thoroughly with water, preferably warm, for at least 15 minutes. Then get prompt medical attention. **INTERNAL:** Give large quantities of water followed with fruit juice and vegetable oil. Get prompt medical attention.

SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	When heated, emits toxic fumes.
	Stable		

Incompatibility (Materials to avoid)

Acids, acrolein, dimethyl sulfate, halogens, AgNO₃, Ag₂O, AsH₃, Ammonia fumes.

Hazardous Decomposition Products

Ammonia fumes.

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled
 Neutralize with sodium bisulfate and flush to sewer with copious amounts of water.

Waste Disposal Method

Neutralize with sodium bisulfate and flush to sewer with copious amounts of water.

SECTION VIII SPECIAL PROTECTION INFORMATION

Discharge, treatment, or disposal may be subject to federal, state, or local laws.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing
 Store at 75°F. Store away from sources of ignition, separate from acids. Store in a well-ventilated area.

Other Precautions

Read label on container before using.

Information contained herein is furnished without warranty of any kind. Employers should use this information to supplement to other information gathered by them and must make independent determinations of safety.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.
 Rev. No. 1 Date 1/12/87 Approved *Walter N. Caswell* Chemical Safety Coordinator