

MATERIAL SAFETY DATA SHEET

COMPLIES WITH OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200
AND N.J.S.A. 34:5A-1 et. seq.

DATE PREPARED 12/5/86

DATE REVISED 3/27/02

SECTION I

Manufacturers Name : **MANHATTAN PRODUCTS, INC.**
Address : 333 STARKE ROAD, CARLSTADT, NJ 07072
** EMERGENCY TELEPHONE ** (201) 933-3500
Rocky Mountain Poison Center (303) 573-1014
Product Name : **CLEAR AMMONIA SOLUTION**
Manufacturers Identification No. : 760000
Alternate Product Name : Ammonium Hydroxide, Ammonia
Various branded and private label names
Product CAS No. : 1336-21-6

SECTION II-HAZARDOUS INGREDIENTS

Finished Product: OSHA (PEL)- N/A

ACGIH (TLV)- N/A

Ingredient Name	CAS Number	PEL/TLV-Source	Conc.
Aqueous Ammonia (NH ₃)	7664-41-7	50ppm*/25ppm*	3.5%

* - Ammonia Gas

SECTION III- PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point : 191 - 212°F

Melting Point : N/A

Freezing Point : N/A

Specific Gravity (water=1) : 0.9890

pH : 11.8 (as is)

Vapor Pressure (mm Hg.) : N/A

Evaporation Rate (<or> 1) : >1

Vapor Density (air=1): >1

Volatiles by Weight (%) : >99%

(butyl acetate =1)

Solubility in Water: Completely soluble

Appearance/Odor: Clear, colorless liquid with a distinct ammonia odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (°F)/Method Used: Non-Flammable

Flammable Limits (LEL/UEL): LEL= 16% as NH₃

UEL= 27% as NH₃

Extinguishing Media: Carbon Dioxide, dry chemical, foam or water spray

Special Firefighting Procedures: Cool containers by removing from fire area and spraying with water.

Unusual Fire and Explosion Hazards: Minimal fire and explosion hazard, if ammonia gas is evolved, it is flammable within the above limits.

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SECTION V- REACTIVITY DATA

Stability: Stable

Chemical Incompatibility: Strong acids, chlorine, bromine, mercury, iodine, silver, and sodium hypochlorite (bleach). Violent reactions may occur with incompatible materials, releasing irritating or toxic gases.

Hazardous Decomposition Products: Toxic oxides of nitrogen and ammonia gases.

Hazardous Polymerization: Will not occur

Conditions to Avoid: Heat

SECTION VI- HEALTH HAZARD DATA

Route of Entry: Inhalation-YES Skin-YES Ingestion-YES

Health Hazards (Acute / Chronic): Acute- Eye and skin irritant. Toxic by ingestion.
Chronic- Not determined.

Carcinogenicity: NTP IARC I or II OSHA regulated ACGIH
 No No No No

Effects of Overexposure: The data below is for Ammonia (as NH₃) and would be considered a worst case situation for the finished product.

Inhalation - Mild exposure may cause irritation of the nose and throat, coughing and sneezing.
Severe exposure may cause respiratory irritation, dyspnea, and pulmonary edema.
Repeated or prolonged exposure may cause irritation, along with bronchitis and pneumonia.

Ingestion - May cause excessive salivation, nausea, vomiting, or gastric irritation with chances of perforation. Ingestion of large quantities may produce CNS depression, shock, and convulsions.

Skin - Very irritating, may cause severe burning pain and corrosive damage.
Repeated prolonged expose may cause dermatitis.

Eyes - Very irritating, may cause conjunctivitis, swelling of eyelids, chemical burns, and transient corneal damage. Repeated or prolonged exposure may cause irritation, along with cataracts and retinal damage.

Medical conditions generally aggravated by exposure: None Known.

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SECTION VII- PRECAUTIONS FOR SAFE HANDLING AND USE

Spill or Leak Procedures:

If a spill occurs, contain the liquid with dikes or absorbent and clear the immediate area. Monitor for ammonia vapors. Use the following personal protective equipment:

Eye Protection-Avoid eye contact and wear protective safety goggles or a face shield.

Skin Protection-Avoid prolonged or repeated skin contact. Wear protective rubber gloves.

Respiratory Protection - Use NIOSH approved respirator for ammonia gas. If ammonia vapors are greater than 300 ppm, use self-contained breathing apparatus with full shield.

Handling: Do not mix with other household chemicals such as bleach, toilet bowl cleaner, wall or tile cleaner.

Storage: Store in cool, well ventilated area. Avoid direct sunlight and overheating. Plastic bottles will bulge with ammonia gas.

Normal Clean Up: Ventilate area. Flush away spilled product with water when vapors will permit.

Waste Disposal: Dilute with water and flush to sewer in accordance with federal, state, and local environmental regulations.

Other Precautions: None

SECTION VIII- FIRST AID AND MEDICAL EMERGENCY PROCEDURES

Eyes: Flush with large amounts of water for at least 15 minutes. Seek medical aid.

Skin: Flush with large amounts of water while removing contaminated clothing. If irritation persists, seek medical aid.

Inhalation: Remove to fresh air. Provide symptomatic and supportive care. Seek medical aid.

Ingestion: Do not induce vomiting. Immediately give large amounts of water or milk to dilute. Seek medical aid.

SECTION IX- OCCUPATIONAL CONTROL MEASURES

Respiratory Protection (type): Use respirator for ammonia vapors.

Ventilation: Exhaust system suitable for removing ammonia fumes.

Protective Gloves: Wear protective rubber gloves.

Eye Protection: Wear goggles and/or face shield.

Other Protective Clothing or Equipment: Aprons, coveralls, lab coats, or uniforms.

Work/Hygienic Practices: Launder work clothes when soiled. Provide local eye bath and emergency shower.

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SECTION X - REGULATORY INFORMATION

Hazard Rating :

Hazard Present

Health : 2
Flammability : 0
Reactivity : 0

Hazard Rating

0 = Insignificant
1 = Slight
2 = Moderate
3 = Serious
4 = Severe
* = Chronic Health Hazard

SARA Title III

Sec 302/304 Chemicals and Reportable Quantities:

Ammonia RQ=100 lbs TPQ=500 lbs

Sec 313 Reportable chemicals above de minimis concentration:

Aqueous Ammonia

Additional Information: N/A - Not Applicable, N/D - Not Determined, N/L - Not Listed

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