

IMPORTANT
READ CAREFULLY BEFORE USING CHEMICAL
OSHA requires that this form be kept on file.

IMPORTANT **MATERIAL SAFETY DATA SHEET**

READ CAREFULLY BEFORE USING CHEMICAL
OSHA requires that this form be kept on file.

Product No. **SB 10443 M**

Product Name **AMMONIUM HYDROXIDE**

1.0. SOLUTION

SECTION I - IDENTIFICATION

Principal Hazardous Component(s)

Ammonium hydroxide CAS# 1336-21-6

Health Hazard	3
Flammability	0
Reactivity	2

SECTION I - NAME

Chemical Synonyms	N/A
Formula	NH ₄ OH in H ₂ O
C.A.S. No.	1336-21-6

Conc.	P.E.L.	A.U.
Ammonium hydroxide	50 ppm	15 ppm

* Chemical subject to the reporting requirements of SARA Title III.

Melting Point (°F)	N/A	Specific Gravity (H ₂ O=1)	0.98
Boiling Point (°F)	N/A	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	N/A	Evaporation Rate (water =1)	N/A
Vapor Density (Air=1)	N/A		
Solubility in Water	Complete.		
Appearance & Odor	Clear, colorless solution with a pungent odor.		

SECTION II - PHYSICAL AND CHEMICAL DATA

Flash Point (Method used)	N/A	Flammable Limits in Air % by Volume	Lower	Upper
			N/A	N/A
Extinguisher Media	Use extinguishing media appropriate for surrounding fire.			

Special Firefighting Procedures

Firefighter should wear self-contained breathing apparatus and proper protective equipment. Move exposed containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool; do not get water inside containers.

Unusual Fire and Explosion Hazards

Gives off flammable vapors and toxic vapors including ammonia and hydrogen gas. Vapors may form explosive mixture with air. Closed containers exposed to heat may explode.

DEC 01 1992

D.O.F.	Corrosive liquids, n.o.s. (Ammonia solution 2%), 8 UN1760 PGIII
--------	---

See Section II

See Section II

9043

Effects of Overexposure

Inhalation of vapors may cause severe irritation of the respiratory system, pulmonary edema, or lung inflammation. Contact with skin or eyes may cause severe irritation or burns. Prolonged eye contact may cause permanent damage to the cornea and blindness may occur. Ingestion may cause severe burning to mouth and stomach. Ingestion is harmful and may be fatal.

Emergency and First Aid Procedures

Call a physician. **EYES/SKIN:** Immediately flush with plenty of water for at least 15 minutes. **INHALATION:** Remove to fresh air. If breathing, give artificial respiration. If breathing is difficult, give oxygen. **INGESTION:** Do not induce vomiting. If conscious give large amounts of water. Follow with dilute fruit juice or whites of eggs, beat with water.

SECTION VI - REACTIVITY

Stability	Conditions to Avoid
Stable ☒ Unstable ☐	Heat.
Incompatibility (Materials to Avoid)	Strong acids, alkali metals, oxidizing agents, bromine, chlorine, aluminum, copper, bromine, mercury, dimethyl sulfate.
Hazardous Decomposition Products	Ammonia, hydrogen gas
Hazardous Polymerization	Conditions to Avoid
May Occur ☐ Will Not Occur ☒	N/A

SECTION VII - STORAGE

Steps to be Taken in Case Material is Released or Spilled:

Wear protective equipment. Ventilate area. Carefully clean spill with dilute hydrochloric acid. Flush area with flooding amounts of water. (Use caution.)

Waste Disposal Method

Discharge, treatment, or disposal may be subject to Federal, State or Local laws. The following guidelines are intended for the disposal of catalog quantities.

Dispose in accordance with all applicable Federal, State and local regulations.

SECTION VIII - SPECIAL PRECAUTIONS

Respiratory Protection (Specify Type)	NIOSH approved respirator if TLV exceeded.
Ventilation	Local Exhaust ☒ General ☐ Special ☐ Other ☐
Protective Gloves	Impervious Gloves ☒ Eye Protection ☒ Safety Goggles ☒
Other Protective Equipment	Lab coat. Eye wash and safety shower.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing

Keep containers tightly closed when not in use.

Do not get liquid or vapors in eyes, or on skin. Avoid breathing vapors.

Other Precautions

Read label on container before using. Do not wear contact lenses when working with this material.

N/A

Approved by	Stephen C. O'Quinn	Effective Date	04/28/95	For laboratory use only. Not for use in household use. Keep container closed.
-------------	--------------------	----------------	----------	---

The chemical material shown is limited to laboratory use only. Employees should refer to the MSDS for further information.