



MSDS

P.O. Box 329 - 802 Washington Avenue Chestertown, MD 21620 - USA

MATERIAL SAFETY DATA SHEET

TELEPHONE # FOR INFORMATION 410 778-3100

24 HOUR EMERGENCY NUMBER (CHEM-TEL): USA, Canada, Puerto Rico 800-255-3924;

Outside North American Continent 813-248-0585 (call Collect)

1. Product Identification

Product Code: 4255

Product Description: Hardness Buffer Reagent

Manufactured By: LaMotte Company
802 Washington Avenue
Chestertown, MD 21620

2. Composition/Information On Ingredients

Hazard	CAS#/Name	%	PEL	TLV
Yes	1336-21-6 Ammonium Hydroxide (16% w/w aqueous ammonia)	57	50 ppm as NH ₃	25 ppm as NH ₃
Yes	12125-02-9 Ammonium Chloride	7	10 mg/cubic m, fume	10 mg/cubic m NH ₄ Cl fume
No	7732-18-5 Water	to 100%		

3. Hazards Overview

Primary Route Of Entry: Eye Skin Ingestion Inhalation

Warning! Vapors harmful to mucous membranes. Causes severe burns and may be fatal if swallowed.

HMIS Hazard

Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least

Health: 2 Flammability: 1 Reactivity: 1

Carcinogenicity: None:

Other Health Related Comments:

See Section 11, Toxicity.

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4. First Aid Measures

Eye Contact: Immediately flush with water for 15 minutes. Consult a physician.

Skin Contact: Immediately flush with water for 15 minutes while removing affected clothing. Rinse skin thoroughly.

Ingestion: Do not induce vomiting. Rinse mouth. Drink plenty of water. Call a physician immediately.

Inhalation: Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

5. Fire Fighting Measures

Flash Point (Method Used): N/A

LEL: 15% (NH₃)

UEL: 28% (NH₃)

Extinguishing Media: Water spray

Special Fire Fighting Procedures: Firefighters wear SCBA.

Unusual Fire & Explosion Hazard: Gives off flammable vapors. Closed containers exposed to heat may explode.

6. Accidental Release Measures

Ventilate area. Don't breathe vapor. Wear NIOSH approved respirator (ammonia vapor cartridge) if airborne concentration exceeds TLV. Wear gloves & eye protection. Neutralize w/ dilute hydrochloric acid. Dilute w/ water and mop up for drain disposal.

7. Handling & Storage

Store tightly closed in cool, ventilated area away from heat, light, acids, bleaches (hypochlorite solutions), silver nitrate, and other incompatible materials.

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8. Exposure Controls/Personal Protection

Ventilation

Mechanical

Protection When Handling

Gloves Eye Protection Lab Coat

Work/Hygenic Practices: Use only with adequate ventilation and avoid contact with skin or clothing.

9. Physical & Chemical Properties

Appearance: Clear Colorless Liquid

Solubility In Water: Soluble

Odor: Pungent, ammonia

pH: 11

Vapor Density: Unknown

Vapor Pressure: ammonia: 8.5 atm

Boiling Point: Unknown

Melting Point: N/A

10. Stability & Reactivity

Stable: Yes

Conditions To Avoid: Heat, light

Incompatibility (Materials To Avoid): Metals, chlorine, bleaches, acids

Hazardous Decomposition Products: Ammonia, NOx

11. Toxicological Information

Oral rat LD50: 350 mg/kg for ammonium hydroxide. Toxic if swallowed. Investigated as a mutagen.

Target Organs: Eyes Lung Skin

Pre-Existing Conditions Aggravated By Exposure: Respiratory conditions

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12. Ecological Information

Information Not Yet Available

13. Disposal Considerations

Wear gloves and eye protection. Carefully neutralize to pH 7 with dilute hydrochloric acid. Flush down drain with excess water. Dispose according to federal, state and local regulations.

14. Transportation Information

Proper Shipping Name:

DOT: AMMONIA SOLUTIONS
>10%, <35% NH3

IATA: AMMONIA SOLUTION
>10%, <35% NH3

Hazard Class/Div:

DOT: 8

IATA: 8

UN: 2672

Packing Group: III

15. Regulatory Information

Chemical Inventory Status

Hazard	Ingredient	USA	Europe	--- Canada ---		Australia	Japan
		TSCA	EC	DSL	NDSL		
Yes	1336-21-6 Ammonium Hydroxide	Yes	Yes	Yes	No	Yes	Yes
Yes	12125-02-9 Ammonium Chloride	Yes	Yes	Yes	No	Yes	Yes
No	7732-18-5 Distilled Water	Yes	Yes	Yes	No	Yes	Yes

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Federal, State, & International Regulations

Ingredient	--- SARA 302 ---		----- SARA 313 -----		CERCLA	RCRA 261.33	TSCA 8(D)
	RQ	TPQ	Listed	Chemical Category			
1336-21-6 Ammonium Hydroxide	No	No	No	No	1000	No	No
12125-02-9 Ammonium Chloride	No	No	No	No	5000	No	No
7732-18-5 Distilled Water	No	No	No	No	No	No	No

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Product Description: Hardness Buffer Reagent

--- SARA 311/312 ---

Hazard Categories

----- Australia -----

Hazchem

Poison

This MSDS Is

Ingredient **Acute** **Chronic** **Fire** **Pressure** **Reactivity** **Code** **Schedule** **WHMIS Compliant**

1336-21-6 Yes Yes No No No 2P S6
Ammonium Hydroxide

12125-02-9 Yes No No No No None Allocated None Allocated
Ammonium Chloride

7732-18-5 No No No No No None Allocated None Allocated
Distilled Water

product 4255 Yes Yes No No No 2P S6 Yes
as a whole

16. Other Information

Sections Revised: 14, Transportation

Prepared By: IP, Regulatory Affairs Department

Revised: 6/4/2008
