

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

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: 4483

Product Description: Hardness Reagent #5

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

2. Composition/Information On Ingredients

Hazard	CAS#/Name	%	PEL	TLV
Yes	1313-84-4 Sodium Sulfide, 9-Hydrate	1	10 ppm as H2S	C 20 ppm as H2S
Yes	1310-73-2 Sodium Hydroxide	0.7	C 2 mg/cubic m	C 2 mg/cubic m
Yes	1303-96-4 Sodium Borate, 10-Hydrate	4	5 mg/cubic m	5 mg/cubic m
Yes	6381-59-5 Potassium Sodium Tartrate, 4-hydrat	1 e	N/E	N/E
No	7732-18-5 Water	to 100%		

MATERIAL SAFETY DATA SHEET

MSDS

Product Code: 4483

3. Hazards Overview

Primary Route Of Entry: Skin Ingestion Inhalation

Vapors and liquid cause irritation to eyes, skin and respiratory system. Harmful if swallowed.

HMIS Hazard Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1= Slight, 0 = Least Health: 1 Flammability: 0 Reactivity: 1

Carcinogenicity: None:

Other Health Related Comments:

See Section 11, Toxicity

4. First Aid Measures

Eye Contact: Flush thoroughly with water for 15 minutes. Consult a physician.

Skin Contact: Flush skin thoroughly with water while removing affected clothing.

Ingestion: Drink plenty of water. Consult a physician.

Inhalation: Remove to fresh air.

<u>5. Fire Fighting Measures</u>

Flash Point (Method Used): N/A	LEL: N/A	UEL: N/A		
Extinguishing Media:	Not a fire hazard			
Special Fire Fighting Procedures:	Firefighters wear self-contained breathing apparatus			
Unusual Fire & Explosion Hazard:	May emit toxic fumes under fire conditions			

6. Accidental Release Measures

For small spill: Wear gloves & eye protection to mop up carefully and flush down drain with large quantity of running water.

7. Handling & Storage

Protect from air and light. Store in cool, dry ventilated area away from heat and incompatibles (strong acids and oxidizers). Contact of sodium sulfide solutions with strong acids such as sulfuric or nitric acid can release toxic hydrogen sulfide gas.

8. Exposure Controls/Personal Protection

Ventilation

Mechanical

Protection When Handling

Eye Protection Gloves Lab Coat

Work/Hygenic Practices: Avoid contact with skin & clothing. Use with adequate ventilation. Wash after handling.

9. Physical & Chemical Properties

Appearance:	Clear Colorless Liquid	Vapor Density:	<1(Air=1)
Solubility In Water:	Soluble	Vapor Pressure:	<17 mm Hg @ 20 deg C
Odor:	Pungent Sulfide	Boiling Point:	Unknown
pH:	12 - 13	Melting Point:	N/A

10. Stability & Reactivity

Stable:	Yes
Conditions To Avoid:	Contact with acids liberates poisonous gas
Incompatibility (Materials To Avoid):	Strong acids, strong oxidizers
Hazardous Decomposition Products:	Hydrogen sulfide gas

<u>11. Toxicological Information</u>

For sodium sulfide--IPR Mouse LD50: 53 mg/kg; Oral rat LD50: 208 mg/kg. For Sodium borate Oral rat LD50: 2.66g/kg. Sodium hydroxide investigated as a mutagen.

Target Organs: Respiratory System Skin

12. Ecological Information

Information Not Yet Available

13. Disposal Considerations

For larger spill, treat collected waste as follows: In FUME HOOD, pour into water and carefully neutralize with 6M hydrochloric acid (H2S gas is toxic). Flush neutralized solution down drain with excess running water.

Dispose according to federal, state & local regs.

<u>14. Transportation Information</u>

Proper Shipping Name:

- **DOT:** CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (1% Sodium Sulfide)
- **IATA:** CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (1% Sodium Sulphide)

Hazard Class/Div:

DOT: 8 **IATA:** 8

UN: ³²⁶⁶ Packing Group: III

	<u>15.</u>	Regu	latory	Information
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Chemical Inventory Status

Hazard	Ingredient	USA TSCA	Europe EC	Canao DSL	da NDSL	Australia	Japan
Yes	1313-82-2 Sodium Sulfide, 9-h	Yes ydrate	Yes	Yes	No	Yes	Yes
Yes	1310-73-2 Sodium Hydroxide	Yes	Yes	Yes	No	Yes	Yes
Yes	1330-43-4 Borates, Tetra, Sodiu	Yes um Salts	Yes (anhydrous)	Yes	No	Yes	Yes
Yes	304-59-6 Potassium Sodium T	Yes `artrate, a	Yes nhydrous	Yes	No	Yes	Yes
No	7732-18-5 Distilled Water	Yes	Yes	Yes	No	Yes	Yes

Federal, State, & International Regulations

	SAI	SARA 302 SARA 313				RCRA	TSCA
Ingredient	RQ	TPQ	Listed	Chemical Category	CERCLA	261.33	8(D)
1313-82-2 Sodium Sulfide, 9-hy	No drate	No	No	No	No	No	No
1310-73-2 Sodium Hydroxide	No	No	No	No	1000	No	No
1330-43-4 Borates, Tetra, Sodiur	No m Salts (ar	No nhydrous)	No	No	No	No	No
304-59-6 Potassium Sodium Ta	No artrate, anh	No lydrous	No	No	No	No	No
7732-18-5 Distilled Water	No	No	No	No	No	No	No

Ingredient	Acute	Haza	rd Ca	1/312 tegories Pressure	Reactivity	Austral Hazchem Code	ia Poison Schedule	This MSDS Is WHMIS Compliant
1313-82-2 Sodium Sulfide	Yes e, 9-hydra	No ate	No	No	No	2X	None Allocate	ed
1310-73-2 Sodium Hydro	Yes xide	No	No	No	Yes	2R	S6	
1330-43-4 Borates, Tetra,	Yes Sodium	Yes Salts (anhyd	No rous)	No	No	None Allocated	S5	
304-59-6 Potassium Sod	Yes ium Tartr	No ate, anhydro		No	No	None Allocated	None Allocate	ed
7732-18-5 Distilled Water	No N r	o N	o No	D	No	None Allocated	None Allocate	ed
product 4483 as a whole	Yes	No	No	No	No	None Allocated	None Allocate	ed Yes

16. Other Information

NFPA rating for sodium sulfide, 9-hydrate (solid, crystals): 3-0-1 Revisions made: Missing Transportation info' added to Section 14.

Prepared By: IP, Regulatory Affairs Department

Revised: 10/16/2008