



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: 7217

Product Description: Manganese Reagent A
(28% w/w Nitric Acid)

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

2. Composition/Information On Ingredients

Hazard	CAS#/Name	%	PEL	TLV
Yes	7697-37-2 Nitric Acid	35 - 40	5 mg/cubic m; 2 ppm	5 mg/cubic m; 2 ppm
Yes	7664-38-2 Phosphoric Acid	23 - 27	1 mg/cubic m	1 mg/cubic m
Yes	7783-35-9 Mercuric Sulfate	7.5	C 0.1 mg/cubic m (skin) Hg & Hg compounds	0.1 mg/cubic m
Yes	7761-88-8 Silver Nitrate	<.01	0.01 mg/cubic m as Ag	0.01 mg/cubic m as Ag
No	7732-18-5 Water to 100%	30 - 40		

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3. Hazards Overview

Primary Route Of Entry: Eye Skin Ingestion Inhalation

Poison! Danger! Corrosive. Liquid and mist cause severe burns to all body tissue. Inhalation may cause coughing, chest pains, damage to lungs. Harmful or fatal if swallowed.

HMIS Hazard

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

Health: 3 **Flammability:** 0 **Reactivity:** 3

Carcinogenicity: None:

Other Health Related Comments:

See section 11.

4. First Aid Measures

Eye Contact: Immediately flush with water for at least 15 minutes. Call a doctor immediately.

Skin Contact: Immediately flush with water for 15 minutes while removing affected clothing. Consult a physician.

Ingestion: Do NOT induce vomiting. Rinse out mouth, give plenty of water or milk. Call a doctor immediately.

Inhalation: Move to fresh air. If not breathing, give artif. respiration. If breathing is difficult, give oxygen. Call a doctor

5. Fire Fighting Measures

Flash Point (Method Used): N/A

LEL: N/A

UEL: N/A

Extinguishing Media: Dry chemical, alcohol-resistant foam, CO2

Special Fire Fighting Procedures: Wear protective equipment and self-contained breathing apparatus.

Unusual Fire & Explosion Hazard: May emit toxic, corrosive fumes of NOx or mercury under fire conditions. Can react explosively with combustible organics, alcohols, metal powder, etc.

6. Accidental Release Measures

Wear gloves & eye protection. Carefully cover with soda ash/slaked lime mixture. Mix, avoiding spattering and fumes. Absorb neutralized material on spill pads or vermiculite. Containerize and hold for disposal as hazardous waste.

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7. Handling & Storage

Store in cool, dry, ventilated area away from incompatible materials (alkali, metals, alcohols). Do not store on wooden floors. Keep tightly closed and out of reach of children.

8. Exposure Controls/Personal Protection

Ventilation

Mechanical Respiratory

Handle in fume hood, or with good ventilation.

Protection When Handling

Eye Protection Gloves Lab Coat

Work/Hygenic Practices: Do not eat or smoke while handling product. Avoid contact with skin & clothing. Wash hands after use.

9. Physical & Chemical Properties

Appearance: Clear Colorless Liquid

Solubility In Water: Soluble

Odor: Slight, acrid

pH: <1

Vapor Density: >1 (Air=1)

Vapor Pressure: 60 mm Hg @ 20 deg C

Boiling Point: ca. 101 deg C (HNO₃)

Melting Point: N/A

10. Stability & Reactivity

Stable: Yes

Conditions To Avoid: Heat

Incompatibility (Materials To Avoid): Strong bases, metallic powders, combustible organics

Hazardous Decomposition Products: Mercury & NO_x. Contact w/ metal can release flammable, explosive hydrogen.

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11. Toxicological Information

Highly corrosive and toxic! Oral rat LD50: 57 mg/kg for mercuric sulfate. Oral (human) LDLo 430 mg/kg for Nitric acid. Investigated as a mutagen, reproductive effector.

Target Organs: Central Nervous System Corrosive to all body parts Eyes Respiratory System Skin

12. Ecological Information

Information Not Yet Available

13. Disposal Considerations

Do not flush to sewer. Dispose of as hazardous waste, according to federal, state and local regulations.

14. Transportation Information

Proper Shipping Name:

DOT: NITRIC ACID
<70% FORBIDDEN PASSENGER AIRCRAFT

IATA: NITRIC ACID
20-70% Acid FORBIDDEN PASSENGER AIRCRAFT

Hazard Class/Div:

DOT: 8

IATA: 8

UN: 2031

Packing Group: II

Product Code: 7217**Product Description:** Manganese Reagent A
(28% w/w Nitric Acid)**15. Regulatory Information****Chemical Inventory Status**

Hazard	Ingredient	USA TSCA	Europe EC	--- Canada ---		Australia	Japan
				DSL	NDSL		
Yes	7697-37-2 Nitric Acid	Yes	Yes	Yes	No	Yes	Yes
Yes	7664-38-2 Phosphoric Acid	Yes	Yes	Yes	No	Yes	Yes
Yes	7783-35-9 Mercuric Sulfate	Yes	Yes	Yes	No	Yes	Yes
Yes	7761-88-8 Silver Nitrate	Yes	Yes	Yes	No	Yes	Yes
No	7732-18-5 Distilled Water	Yes	Yes	Yes	No	Yes	Yes

Federal, State, & International Regulations

Ingredient	--- SARA 302 ---		----- SARA 313 -----		CERCLA	RCRA 261.33	TSCA 8(D)
	RQ	TPQ	Listed	Chemical Category			
7697-37-2 Nitric Acid	1000	1000	Yes	No	1000	No	No
7664-38-2 Phosphoric Acid	No	No	No	No	5000	No	No
7783-35-9 Mercuric Sulfate	No	No	No	Mercury Compound	10	No	No
7761-88-8 Silver Nitrate	No	No	No	Silver comp	1	No	No
7732-18-5 Distilled Water	No	No	No	No	No	No	No

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--- SARA 311/312 ---**Hazard Categories****----- Australia -----****Hazchem
Code****Poison
Schedule****This MSDS Is
WHMIS Compliant****Ingredient****Acute****Chronic****Fire****Pressure****Reactivity**7697-37-2
Nitric Acid

Yes

Yes

No

No

Yes

2PE

S6

7664-38-2
Phosphoric Acid

Yes

No

No

No

No

2R

S5

7783-35-9
Mercuric Sulfate

Yes

Yes

No

No

No

2X

S7

7761-88-8
Silver Nitrate

Yes

Yes

No

No

Yes

2X

S6

7732-18-5
Distilled Water

No

No

No

No

No

None Allocated

None Allocated

product
7217
as a whole

Yes

Yes

No

No

Yes

2PE

S6

Yes

16. Other Information

Nitric acid is extremely hazardous; it is corrosive, reactive, an oxidizer, and a poison.

Prepared By: IP, Regulatory Affairs Department**Revised:** 7/18/2006
