



# 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		

---

**Product Code:** 7217

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

---

### **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.

---

---

**Product Code:** 7217

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

---

## **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 (HNO<sub>3</sub>)

**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<sub>x</sub>. Contact w/ metal can release flammable, explosive hydrogen.

---

---

**Product Code:** 7217

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

---

### **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	Europe	--- Canada ---		Australia	Japan
		TSCA	EC	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

---

**Product Code:** 7217

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

---

--- SARA 311/312 ---

----- Australia -----

**Hazard Categories**

<b>Ingredient</b>	<b>Acute</b>	<b>Chronic</b>	<b>Fire</b>	<b>Pressure</b>	<b>Reactivity</b>	<b>Hazchem Code</b>	<b>Poison Schedule</b>	<b>This MSDS Is WHMIS Compliant</b>
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	
<b>product 7217 as a whole</b>	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

---