



# 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

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

**Product Code:** 4798

**Product Description:** Ammonia Nitrogen Reagent #2  
(Nessler Reagent)

### 2. Composition/Information On Ingredients

| Hazard | CAS#/Name                        | %       | PEL                     | TLV                    |
|--------|----------------------------------|---------|-------------------------|------------------------|
| Yes    | 1310-58-3<br>Potassium Hydroxide | 15      | C 2 mg/cubic m          | C 2 mg/cubic m         |
| Yes    | 7487-94-7<br>Mercuric Chloride   | 3.3     | C 0.1 mg/cubic m (skin) | 0.1 mg/cubic m (as Hg) |
| Yes    | 7681-11-0<br>Potassium Iodide    | 6       | N/E                     | N/E                    |
| No     | 7732-18-5<br>Water               | to 100% |                         |                        |

### 3. Hazards Overview

**Primary Route Of Entry:** Skin Ingestion Inhalation

Poison! Danger! Corrosive. Severe burns to all body tissue. Vapors irritating to Respiratory tract. Corrosive to eyes and skin. Toxic or fatal if swallowed.

#### HMIS Hazard

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

Health: 3      Flammability: 0      Reactivity: 2

**Carcinogenicity:** None:

#### Other Health Related Comments:

Mercuric chloride can have toxic effects on the nervous system. Investigated as a tumorigen, mutagen, reproductive effector (possible teratogen). All forms of mercury can cross the placenta to the fetus, causing birth defects.



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**4. First Aid Measures**

**Eye Contact:** Immediately flush with water for 15 minutes. Get prompt medical attention.

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

**Ingestion:** Do not induce vomiting. Rinse out mouth. Drink plenty of water. Call a doctor immediately!

**Inhalation:** Remove to fresh air.

**5. Fire Fighting Measures**

**Flash Point (Method Used):** N/A

**LEL:** N/A

**UEL:** N/A

**Extinguishing Media:** Not a fire hazard

**Special Fire Fighting Procedures:** N/A

**Unusual Fire & Explosion Hazard:** N/A

**6. Accidental Release Measures**

Wear gloves and eye protection. Absorb on inert material (vermiculite) or spill pads. Place into a clean, dry plastic pail and cover with lid. Dispose of as hazardous waste. Do not pour down sinks and drains.

**7. Handling & Storage**

Store in cool, dry, storage area away from incompatible materials. #4798 (mercuric chloride in strong alkaline solution) is incompatible with many compounds: strong acids, sulfides & sulfites, copper, iron, lead, and other metals).



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## **8. Exposure Controls/Personal Protection**

### **Ventilation**

Mechanical

### **Protection When Handling**

Eye Protection Gloves Lab Coat

**Work/Hygenic Practices:** No eating or smoking while handling. Wash w/ soap, water after handling. Avoid contact w/ skin & clothing

## **9. Physical & Chemical Properties**

**Appearance:** Clear Light yellow Liquid

**Vapor Density:** Unknown

**Solubility In Water:** Soluble

**Vapor Pressure:** Unknown

**Odor:** None

**Boiling Point:** >100 deg C

**pH:** 14

**Melting Point:** N/A

## **10. Stability & Reactivity**

**Stable:** Yes

**Conditions To Avoid:** N/A

**Incompatibility (Materials To Avoid):** Strong acids, metals

**Hazardous Decomposition Products:** N/A

## **11. Toxicological Information**

For Mercuric chloride: Oral rat LD50: 1 mg/kg; skin rat LD50: 41 mg/kg. Highly Toxic! Average lethal dose (human) for inorganic mercury salts is about 1 gram.

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



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**12. Ecological Information**

For Mercury: This chemical has a bioconcentration factor (BCF) >100. It is expected to significantly bioaccumulate in the environment. Dangerous to the environment. Very toxic to aquatic life.

**13. Disposal Considerations**

Any free liquid waste may be treated with ammonium hydroxide to precipitate the mercury; the precipitated mercury "sludge" must be disposed of as hazardous waste. Under U.S. law even small amounts of mercury may not be disposed of to sewers or water

**14. Transportation Information**

**Proper Shipping Name:**

**DOT:** CORROSIVE LIQUIDS, TOXIC, N.O.S.  
(Potassium hydroxide/Mercuric chloride)

**IATA:** CORROSIVE LIQUID, TOXIC, N.O.S.  
(Potassium hydroxide/Mercuric chloride)

**Hazard Class/Div:**

**DOT:** 8(6.1)

**IATA:** 8(6.1)

**UN:** 2922

**Packing Group:** II

**15. Regulatory Information**

**Chemical Inventory Status**

| Hazard | Ingredient                       | USA  | Europe | --- Canada --- |      | Australia | Japan |
|--------|----------------------------------|------|--------|----------------|------|-----------|-------|
|        |                                  | TSCA | EC     | DSL            | NDSL |           |       |
| Yes    | 1310-58-3<br>Potassium Hydroxide | Yes  | Yes    | Yes            | No   | Yes       | Yes   |
| Yes    | 7487-94-7<br>Mercuric Chloride   | Yes  | Yes    | Yes            | No   | Yes       | Yes   |
| Yes    | 7681-11-0<br>Potassium Iodide    | Yes  | Yes    | Yes            | No   | Yes       | Yes   |
| No     | 7732-18-5<br>Distilled Water     | Yes  | Yes    | Yes            | No   | Yes       | Yes   |

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Federal, State, & International Regulations

| Ingredient                       | --- SARA 302 --- |      | ----- SARA 313 ----- |                   | CERCLA | RCRA<br>261.33 | TSCA<br>8(D) |
|----------------------------------|------------------|------|----------------------|-------------------|--------|----------------|--------------|
|                                  | RQ               | TPQ  | Listed               | Chemical Category |        |                |              |
| 1310-58-3<br>Potassium Hydroxide | No               | No   | No                   | No                | 1000   | No             | No           |
| 7487-94-7<br>Mercuric Chloride   | 500              | 500* | Yes                  | Mercury comp.     | 1      | No             | No           |
| 7681-11-0<br>Potassium Iodide    | No               | No   | No                   | No                | No     | No             | No           |
| 7732-18-5<br>Distilled Water     | No               | No   | No                   | No                | No     | No             | No           |

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| Ingredient                       | Acute | --- SARA 311/312 ---<br>Hazard Categories |      |          |            | ----- Australia ----- |                    | This MSDS Is<br>WHMIS Compliant |
|----------------------------------|-------|---|------|----------|------------|-----------------------|--------------------|---------------------------------|
|                                  |       | Chronic                                   | Fire | Pressure | Reactivity | Hazchem<br>Code       | Poison<br>Schedule |                                 |
| 1310-58-3<br>Potassium Hydroxide | Yes   | Yes                                       | No   | No       | Yes        | 2R                    | S6                 |                                 |
| 7487-94-7<br>Mercuric Chloride   | Yes   | Yes                                       | No   | No       | No         | 2X                    | S7                 |                                 |
| 7681-11-0<br>Potassium Iodide    | Yes   | Yes                                       | No   | No       | No         | None Allocated        | None Allocated     |                                 |
| 7732-18-5<br>Distilled Water     | No    | No  | No   | No       | No         | None Allocated        | None Allocated     |                                 |
| product 4798<br>as a whole       | Yes   | Yes                                       | No   | No       | Yes        | 2R                    | S7(?)              | Yes                             |

**16. Other Information**

Warning! This product contains mercury compounds known to the state of California to cause birth defects or other reproductive harm.

Prepared By: DMH, Regulatory Affairs Department

Revised: 1/21/2009