1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: SODIUM HYDROXIDE REAGENT WITH METAL INHIBITOR
Product Code(s): 4259
Recommended Use: Test kit reagent. Industrial (not for food or food contact use). Laboratory chemicals.
Company: LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620
USA
Emergency Telephone Number: 24 Hour Emergency Number (CHEM-TEL):
USA, Canada, Puerto Rico 1-800-255-3924
Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview
Corrosive
Causes burns to any area of contact
Risk of serious damage to eyes
Harmful if swallowed

Appearance: Clear, colorless
Physical State: Liquid
Odor: Odorless

OSHA Regulatory Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Health Effects
Principle Routes of Exposure: Eye contact, Skin contact, Ingestion, Inhalation.

Acute Toxicity
Eye Contact: Causes burns. Risk of serious damage to eyes.
Skin: Causes burns. Symptoms can include redness, itching, and pain.
Inhalation: Irritating to mucous membranes. Depending on exposure, the effects from inhalation of corrosive mists can vary from mild irritation to serious damage to respiratory tract.
Ingestion: Harmful if swallowed. Can burn mouth, throat, stomach, and GI tract. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects: Repeated exposure may cause damage to the tissues of the mucous membranes, respiratory tract, eyes, and skin. Symptoms may be delayed.

Aggravated Medical Conditions: Hypersensitivity may occur in those with preexisting skin disorders. Respiratory disorders. Preexisting eye disorders.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium chloride, hexahydrate</td>
<td>7791-18-6</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>4-6</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>102-71-6</td>
<td>4-6</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>to 100%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

General Advice
Do not get in eyes, on skin, or on clothing. Show this safety data sheet to the doctor in attendance.

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact
Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Call a physician immediately.

Inhalation
Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel. Call a physician immediately.

Ingestion
DO NOT INDUCE VOMITING. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

Protection of First-aiders
Use personal protective equipment. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

5. FIRE-FIGHTING MEASURES

Flammable Properties
Not a fire hazard.

Flash Point
179°C (354°F) OC for Triethanolamine

Suitable Extinguishing Media
Water spray, dry chemical, carbon dioxide (CO₂), or foam.

Explosion Data
NFPA
Health Hazard 3  Flammability 0  Stability 0

HMIS
Health Hazard 3  Flammability 0  Stability 2

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Refer to Section 8. Use personal protective equipment. Avoid contact with skin, eyes and inhalation of vapors.

Methods for Cleaning Up
Neutralize spills with acid such as acetic, hydrochloric or sulfuric, absorb with vermiculite or other inert substance, and package in a suitable container for disposal. Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Handling
Handle in accordance with good industrial hygiene and safety practice. Prevent contact with skin, eyes, and clothing. Do not ingest. Do not eat, drink, or smoke when using this product.
SODIUM HYDROXIDE REAGENT WITH METAL INHIBITOR

Storage
Keep containers tightly closed in a dry, cool, and well-ventilated place. Separate from acids. Keep away from heat, sparks and open flame. - No smoking. Do not store with aluminum or magnesium. Avoid contain with copper or copper alloy. Keep from freezing. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium chloride, hexahydrate 7791-18-6</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
</tr>
<tr>
<td>Sodium hydroxide 1310-73-2</td>
<td>None Known</td>
<td>TWA: 2 mg/m³</td>
<td>IDLH: 10 mg/m³ Ceiling: 2 mg/m³</td>
</tr>
<tr>
<td>Triethanolamine 102-71-6</td>
<td>TWA: 5 mg/m³</td>
<td>None Known</td>
<td>None Known</td>
</tr>
<tr>
<td>Water 7732-18-5</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
</tr>
</tbody>
</table>

Engineering Measures
- Showers
- Eyewash stations
- Ventilation systems.

Personal Protective Equipment

Eye/Face Protection
- Safety glasses with side-shields. If splashes are likely to occur, wear: Face-shield.

Skin and Body Protection
- Incidental contact/splash protection: Wear protective gloves/clothing. Repeated or prolonged contact: Chemical resistant protective sleeves.

Respiratory Protection
- When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene Measures
- Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear, colorless</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Flash Point</td>
<td>179°C (354°F) OC for Triethanolamine</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>pH</td>
<td>14</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>315°C (599°F) for Triethanolamine</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>Carbon oxides (COx). Nitrogen oxides (NOx).</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Hazardous polymerization does not occur.</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability
- Stable under normal conditions of use and storage.

Incompatible Products

Conditions to Avoid
- Excessive heat. Incompatible products.

Hazardous Decomposition Products
- Carbon oxides (COx). Nitrogen oxides (NOx).

Hazardous Polymerization
- Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Published Date: 21-Aug-2012
Chronic Toxicity

Repeated exposure may cause damage to the tissues of the mucous membranes, respiratory tract, eyes, and skin. Symptoms may be delayed.

IARC: (International Agency for Research on Cancer)
Group 3 - Not classifiable as to its carcinogenicity to humans

Endocrine Disruptor Information

Ecotoxicity
Large amounts will affect pH and harm aquatic organisms.

Persistence and Degradability
No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method
Dispose of in accordance with local regulations.
14. TRANSPORT INFORMATION

DOT
Proper Shipping Name: SODIUM HYDROXIDE SOLUTION
Hazard Class: 8
UN-No: 1824
Packing Group: II
Reportable Quantity (RQ): 1000

IATA
UN-No: 1824
Proper Shipping Name: SODIUM HYDROXIDE SOLUTION
Hazard Class: 8
Packing Group: II

IMDG/IMO
Proper Shipping Name: SODIUM HYDROXIDE SOLUTION
Hazard Class: 8
UN-No: 1824
Packing Group: II

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
<th>DSL</th>
<th>EINECS/ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium chloride, hexahydrate 7791-18-6 (&lt;0.1)</td>
<td>TSCA</td>
<td>DSL</td>
<td>EINECS/ELINCS</td>
<td>1-233</td>
<td>X</td>
<td>KECL</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sodium hydroxide 1310-73-2 (4-6)</td>
<td>Present</td>
<td>X</td>
<td>X</td>
<td>1-410; 2-1972</td>
<td>X</td>
<td>KE-31487</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Triethanolamine 102-71-6 (4-6)</td>
<td>Present</td>
<td>X</td>
<td>X</td>
<td>2-308</td>
<td>X</td>
<td>KE-25940</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Water 7732-18-5 (to 100%)</td>
<td>Present</td>
<td>X</td>
<td>X</td>
<td>ENCS</td>
<td>X</td>
<td>KE-35400</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium chloride, hexahydrate</td>
<td>7791-18-6</td>
<td>&lt;0.1</td>
<td>None Known</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>4-6</td>
<td>None Known</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>102-71-6</td>
<td>4-6</td>
<td>None Known</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>to 100%</td>
<td>None Known</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories
Acute Health Hazard: Yes
Chronic Health Hazard: No
Fire Hazard: No
Sudden Release of Pressure Hazard: No
Reactive Hazard: No

Clean Water Act

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium chloride, hexahydrate</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
</tr>
<tr>
<td>Water</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
</tr>
</tbody>
</table>

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>HAPS data</th>
<th>VOC Chemicals</th>
<th>Class 1 Ozone Depletors</th>
<th>Class 2 Ozone Depletors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium chloride, hexahydrate</td>
<td>7791-18-6</td>
<td>&lt;0.1</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>4-6</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>102-71-6</td>
<td>4-6</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
<td>Group I</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>to 100%</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
</tr>
</tbody>
</table>

CERCLA

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>Extremely Hazardous Substances RQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium chloride, hexahydrate</td>
<td>None Known</td>
<td>None Known</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1000 lb</td>
<td>None Known</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>None Known</td>
<td>None Known</td>
</tr>
<tr>
<td>Water</td>
<td>None Known</td>
<td>None Known</td>
</tr>
</tbody>
</table>

U.S. State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium chloride, hexahydrate</td>
<td>7791-18-6</td>
<td>None Known</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>None Known</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>102-71-6</td>
<td>None Known</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>None Known</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium chloride, hexahydrate</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>None Known</td>
<td>X</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>X</td>
<td>None Known</td>
<td>X</td>
<td>None Known</td>
<td>X</td>
</tr>
<tr>
<td>Water</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
</tr>
</tbody>
</table>

International Regulations

Mexico - Grade

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Carcinogen Status</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium chloride, hexahydrate</td>
<td>None Known</td>
<td>None Known</td>
</tr>
</tbody>
</table>
SODIUM HYDROXIDE REAGENT WITH METAL INHIBITOR

<table>
<thead>
<tr>
<th>Component</th>
<th>WHMIS Hazard Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium chloride, hexahydrate</td>
<td>Uncontrolled product according to WHMIS classification criteria</td>
</tr>
<tr>
<td>7791-18-6 ( &lt;0.1 )</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1 % E</td>
</tr>
<tr>
<td>1310-73-2 ( 4-6 )</td>
<td></td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>1 %</td>
</tr>
<tr>
<td>102-71-6 ( 4-6 )</td>
<td>Uncontrolled product according to WHMIS classification criteria</td>
</tr>
<tr>
<td>Water</td>
<td>Uncontrolled product according to WHMIS classification criteria</td>
</tr>
<tr>
<td>7732-18-5 ( to 100% )</td>
<td></td>
</tr>
</tbody>
</table>

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS</th>
<th>PPE</th>
<th>Transport Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>2</td>
<td>8</td>
</tr>
</tbody>
</table>

Health Hazard 3
Fire Hazard 0
Reactivity 2

Prepared By Regulatory Affairs Department
Issuing Date 8/17/2012
Revision Date -
Revision Note Update to Format.

Disclaimer
The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS