

Issuing Date 1/11/12

Revision Number 0

**1. PRODUCT AND COMPANY IDENTIFICATION**

|                                   |   |
|-----------------------------------|---|
| <b>Product Name</b>               | <b>SODIUM HYDROXIDE, 1.0 N</b>  |
| <b>Product Code(s)</b>            | 4004  |
| <b>Recommended Use</b>            | Test kit reagent. Industrial (not for food or food contact use). Laboratory chemicals.  |
| <b>Company</b>                    | LaMotte Company, Inc.<br>802 Washington Avenue<br>P.O. Box 329<br>Chestertown, MD 21620<br>USA  |
| <b>Emergency Telephone Number</b> | 24 Hour Emergency Number (CHEM-TEL):<br>USA, Canada, Puerto Rico 1-800-255-3924<br>Outside North American Continent (Call collect) 813-248-0585 |

**2. HAZARDS IDENTIFICATION****DANGER!****Emergency Overview**

Corrosive

Harmful if swallowed

May cause burns to eyes, skin and mucous membranes

Irritating to eyes, respiratory system, and skin

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

**OSHA Regulatory Status** This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). Safety information is given for exposure to the reagent as sold and considers exposure to the chemical if user has direct eye and skin contact.

**Potential Health Effects**

**Principle Routes of Exposure** Skin contact, Ingestion, Inhalation.

**Acute Toxicity****Eyes**

Causes irritation, redness, and pain. May cause burns.

**Skin**

Contact causes severe skin irritation and possible burns.

**Inhalation**

Irritating to mucous membranes. Inhalation of corrosive mist may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate.

**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

**Aggravated Medical Conditions**

Hypersensitivity may occur in those with preexisting skin disorders. Respiratory disorders. Preexisting eye disorders.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Formula** NaOH in water

| Chemical Name    | CAS-No    | Weight % |
|------------------|-----------|----------|
| Sodium hydroxide | 1310-73-2 | 4        |
| Water            | 7732-18-5 | to 100%  |

### 4. FIRST AID MEASURES

|                                   |   |
|-----------------------------------|---|
| <b>General Advice</b>             | Do not get in eyes, on skin, or on clothing.  |
| <b>Eye Contact</b>                | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.  |
| <b>Skin Contact</b>               | 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.  |
| <b>Inhalation</b>                 | Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel. Call a physician immediately.   |
| <b>Ingestion</b>                  | DO NOT INDUCE VOMITING. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician immediately.   |
| <b>Protection of First-aiders</b> | 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

|                                     |  |                       |                    |  |
|-------------------------------------|--|-----------------------|--------------------|--|
| <b>Flammable Properties</b>         | Not a fire hazard.   |                       |                    |  |
| <b>Flash Point</b>                  | Not applicable   |                       |                    |  |
| <b>Suitable Extinguishing Media</b> | Water spray, dry chemical, carbon dioxide (CO <sub>2</sub> ), or foam. |                       |                    |  |
| <b>Explosion Data</b>               |  |                       |                    | <b>Physical and Chemical Hazards -</b> |
| <b>NFPA</b>                         | <b>Health Hazard 3</b>   | <b>Flammability 0</b> | <b>Stability 0</b> |  |
| <b>HMIS</b>                         | <b>Health Hazard 3</b>   | <b>Flammability 0</b> | <b>Stability 2</b> |  |

### 6. ACCIDENTAL RELEASE MEASURES

|                                |  |
|--------------------------------|--|
| <b>Personal Precautions</b>    | Refer to Section 8. Use personal protective equipment. Avoid contact with skin, eyes and inhalation of vapors.   |
| <b>Methods for Cleaning Up</b> | 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

|                 |   |
|-----------------|---|
| <b>Handling</b> | 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. |
|-----------------|---|

**Storage** Keep containers tightly closed in a dry, cool, and well-ventilated place. Separate from acids. Keep away from heat and incompatibles. Keep from freezing. Keep out of the reach of children.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| Chemical Name                 | ACGIH TLV  | OSHA PEL                 | NIOSH IDLH   |
|-------------------------------|------------|--------------------------|--|
| Sodium hydroxide<br>1310-73-2 | None Known | TWA: 2 mg/m <sup>3</sup> | IDLH: 10 mg/m <sup>3</sup><br>Ceiling: 2 mg/m <sup>3</sup> |
| Water<br>7732-18-5            | None Known | None Known               | None Known   |

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems.

### Personal Protective Equipment

**Eye/Face Protection**

Safety glasses with side-shields.

**Skin and Body Protection**

Wear protective gloves/clothing.

**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

|                       |                  |                            |  |
|-----------------------|------------------|----------------------------|--|
| <b>Appearance</b>     | Clear, colorless | <b>Odor</b>                | Odorless                                   |
| <b>Physical State</b> | Liquid           | <b>pH</b>                  | 14   |
| <b>Flash Point</b>    | Not applicable   | <b>Boiling Point/Range</b> | 102°C/216°F (5% solution sodium hydroxide) |

|                         |                          |                       |                          |
|-------------------------|--------------------------|-----------------------|--------------------------|
| <b>Specific Gravity</b> | 1.0428                   | <b>Vapor Pressure</b> | No information available |
| <b>Vapor Density</b>    | No information available |                       |                          |

## 10. STABILITY AND REACTIVITY

**Stability** Stable under normal conditions of use and storage.

**Incompatible Products** Acids. Contact with metals (aluminum, zinc, tin) may release hydrogen gas.

**Conditions to Avoid** Excessive heat. Incompatible products.

**Hazardous Decomposition Products** None under normal use.

**Hazardous Polymerization** Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

| Chemical Name    | LD50 Oral  | LD50 Dermal           | LC50 Inhalation |
|------------------|------------|-----------------------|-----------------|
| Sodium hydroxide | None Known | 1350 mg/kg ( Rabbit ) | None Known      |

|       |                  |            |            |
|-------|------------------|------------|------------|
| Water | 90 mL/kg ( Rat ) | None Known | None Known |
|-------|------------------|------------|------------|

**Chronic Toxicity****Chronic Toxicity**

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

| Chemical Name    | ACGIH      | IARC       | NTP        | OSHA       |
|------------------|------------|------------|------------|------------|
| Sodium hydroxide | None Known | None Known | None Known | None Known |
| Water            | None Known | None Known | None Known | None Known |

**Endocrine Disruptor Information**

| Chemical Name    | EU - Endocrine Disruptors Candidate List | EU - Endocrine Disruptors - Evaluated Substances | Japan - Endocrine Disruptor Information |
|------------------|--|--|---|
| Sodium hydroxide | None Known                               | None Known                                       | None Known                              |
| Water            | None Known                               | None Known                                       | None Known                              |

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

| Chemical Name    | Toxicity to Algae | Toxicity to Fish                            | Microtox   | Daphnia Magna (Water Flea) |
|------------------|-------------------|---|------------|----------------------------|
| Sodium hydroxide | None Known        | LC50= 45.4 mg/L<br>Oncorhynchus mykiss 96 h | None Known | None Known                 |
| Water            | None Known        | None Known                                  | None Known | None Known                 |

**Persistence and Degradability**

No information available.

| Chemical Name    | Log Pow    |
|------------------|------------|
| Sodium hydroxide | None Known |
| Water            | None Known |

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method**

Dispose of in accordance with local regulations.

| Chemical Name                | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|------------------------------|--------------------------------------|------------------------|------------------------|------------------------|
| Sodium hydroxide - 1310-73-2 | None Known                           | None Known             | None Known             | None Known             |
| Water - 7732-18-5            | None Known                           | None Known             | None Known             | None Known             |

|                           |
|---------------------------|
| 14. TRANSPORT INFORMATION |
|---------------------------|

**DOT**

|                                 |                           |
|---------------------------------|---------------------------|
| <b>Proper Shipping Name</b>     | SODIUM HYDROXIDE SOLUTION |
| <b>Hazard Class</b>             | 8                         |
| <b>UN-No</b>                    | 1824                      |
| <b>Packing Group</b>            | III                       |
| <b>Reportable Quantity (RQ)</b> | 1000                      |

**IATA**

|                             |                           |
|-----------------------------|---------------------------|
| <b>UN-No</b>                | 1824                      |
| <b>Proper Shipping Name</b> | SODIUM HYDROXIDE SOLUTION |
| <b>Hazard Class</b>         | 8                         |
| <b>Packing Group</b>        | III                       |

**IMDG/IMO**

|                             |                           |
|-----------------------------|---------------------------|
| <b>Proper Shipping Name</b> | SODIUM HYDROXIDE SOLUTION |
| <b>Hazard Class</b>         | 8                         |
| <b>UN-No</b>                | 1824                      |
| <b>Packing Group</b>        | III                       |

## 15. REGULATORY INFORMATION

**International Inventories**

| Component                           | TSCA    | DSL | EINECS/ELINCS | ENCS          | IECSC | KECL     | PICCS | AICS |
|-------------------------------------|---------|-----|---------------|---------------|-------|----------|-------|------|
| Sodium hydroxide<br>1310-73-2 ( 4 ) | Present | X   | X             | 1-410; 2-1972 | X     | KE-31487 | X     | X    |
| Water<br>7732-18-5 ( to 100% )      | Present | X   | X             | ENCS          | X     | KE-35400 | X     | X    |

**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.

| Chemical Name    | CAS-No    | Weight % | SARA 313 - Threshold Values % |
|------------------|-----------|----------|-------------------------------|
| Sodium hydroxide | 1310-73-2 | 4        | None Known                    |
| Water            | 7732-18-5 | to 100%  | None Known                    |

**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**

| Component                           | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|-------------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Sodium hydroxide<br>1310-73-2 ( 4 ) | None Known                  | None Known             | None Known                | None Known                 |
| Water<br>7732-18-5 ( to 100% )      | None Known                  | None Known             | None Known                | None Known                 |

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPS) (see 40 CFR 61)**

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

| Chemical Name    | CAS-No    | Weight % | HAPS data  | VOC Chemicals | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|------------------|-----------|----------|------------|---------------|-------------------------|-------------------------|
| Sodium hydroxide | 1310-73-2 | 4        | None Known | None Known    | None Known              | None Known              |
| Water            | 7732-18-5 | to 100%  | None Known | None Known    | None Known              | None Known              |

**CERCLA**

| Chemical Name    | Hazardous Substances RQs | Extremely Hazardous Substances RQs |
|------------------|--------------------------|------------------------------------|
| Sodium hydroxide | 1000 lb                  | None Known                         |
| Water            | None Known               | None Known                         |

**U.S. State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals

| Chemical Name | CAS-No | California Prop. 65 |
|---------------|--------|---------------------|
|               |        |                     |

|                  |           |            |
|------------------|-----------|------------|
| Sodium hydroxide | 1310-73-2 | None Known |
| Water            | 7732-18-5 | None Known |

**U.S. State Right-to-Know Regulations**

| Chemical Name    | Massachusetts | New Jersey | Pennsylvania | Illinois   | Rhode Island |
|------------------|---------------|------------|--------------|------------|--------------|
| Sodium hydroxide | X             | X          | X            | None Known | X            |
| Water            | None Known    | None Known | None Known   | None Known | None Known   |

**International Regulations**

**Mexico - Grade**

| Chemical Name    | Carcinogen Status | Exposure Limits |
|------------------|-------------------|-----------------|
| Sodium hydroxide | None Known        | None Known      |
| Water            | None Known        | None Known      |

**Canada**

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

| Component                           | WHMIS Hazard Class  |
|-------------------------------------|---|
| Sodium hydroxide<br>1310-73-2 ( 4 ) | 1 %<br>E  |
| Water<br>7732-18-5 ( to 100% )      | Uncontrolled product according to WHMIS classification criteria |



**16. OTHER INFORMATION**

| NFPA          | HMIS   | PPE           | Transport Symbol |             |          |            |          |  |  |
|---------------|--|---------------|------------------|-------------|----------|------------|----------|--|--|
|               | <table border="1"> <tr> <td>Health Hazard</td> <td style="text-align: center;"><b>3</b></td> </tr> <tr> <td>Fire Hazard</td> <td style="text-align: center;"><b>0</b></td> </tr> <tr> <td>Reactivity</td> <td style="text-align: center;"><b>2</b></td> </tr> </table> | Health Hazard | <b>3</b>         | Fire Hazard | <b>0</b> | Reactivity | <b>2</b> |  |  |
| Health Hazard | <b>3</b>   |               |                  |             |          |            |          |  |  |
| Fire Hazard   | <b>0</b>   |               |                  |             |          |            |          |  |  |
| Reactivity    | <b>2</b>   |               |                  |             |          |            |          |  |  |

**Prepared By** Regulatory Affairs Department

**Issuing Date** 1/11/12

**Revision Date** 11-Jan-2012

**Revision Note**  
Initial Release

**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**