

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Name** CARBON DIOXIDE REAGENT B

**Product Code(s)** 4253

**Recommended Use** Test kit reagent. Laboratory chemicals. Industrial (not for food or food contact use).

**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****WARNING!****Emergency Overview**

Harmful if swallowed  
May cause skin, eye, and respiratory tract irritation  
May cause irritation of the gastrointestinal tract

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

**OSHA Regulatory Status** 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** Eye contact, Skin contact, Ingestion, Inhalation.

**Acute Toxicity**

**Eyes** May cause irritation.  
**Skin** May cause irritation. Prolonged skin contact may defat the skin and produce dermatitis.  
**Inhalation** May cause irritation of respiratory tract.  
**Ingestion** Harmful if swallowed. Ingestion may cause gastrointestinal irritation.

**Chronic Effects**

**Aggravated Medical Conditions** Hypersensitivity may occur in those with preexisting skin disorders.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Formula** NaOH in water

| Chemical Name    | CAS-No    | Weight % |
|------------------|-----------|----------|
| Sodium hydroxide | 1310-73-2 | <0.1     |
| Water            | 7732-18-5 | to 100%  |

**4. FIRST AID MEASURES**

|                                   |   |
|-----------------------------------|---|
| <b>General Advice</b>             | Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapors/spray.  |
| <b>Eye Contact</b>                | Immediately flush eyes with gentle stream of water for at least 15 minutes, occasionally lifting upper and lower eyelids. 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. Consult a physician.   |
| <b>Inhalation</b>                 | Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel.   |
| <b>Ingestion</b>                  | DO NOT INDUCE VOMITING. Drink plenty of water. Clean mouth with water. Call a physician immediately. Never give anything by mouth to an unconscious person.   |
| <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 flammable. Not a fire hazard.  |                       |                    |  |
| <b>Flash Point</b>                  | Not applicable   |                       |                    |  |
| <b>Suitable Extinguishing Media</b> | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical, CO <sub>2</sub> , water spray or alcohol-resistant foam. |                       |                    |  |
| <b>Explosion Data</b>               |  |                       |                    |  |
| <b>NFPA</b>                         | <b>Health Hazard</b> 1   | <b>Flammability</b> 0 | <b>Stability</b> 0 | <b>Physical and Chemical Hazards</b> N/A |
| <b>HMIS</b>                         | <b>Health Hazard</b> 2   | <b>Flammability</b> 0 | <b>Stability</b> 1 |  |

## 6. ACCIDENTAL RELEASE MEASURES

|                                |   |
|--------------------------------|---|
| <b>Personal Precautions</b>    | Ensure adequate ventilation. Avoid contact with skin, eyes, and inhalation of vapors. Use personal protective equipment. Refer to Section 8.  |
| <b>Methods for Cleaning Up</b> | Containerize spill material and hold for later disposal. If local regulations permit, dissolve with large volume of water, neutralize with dilute acid (acetic, hydrochloric), then rinse to drain with excess water. 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. |
| <b>Storage</b>  | Keep containers tightly closed in a dry, cool, and well-ventilated place. Separate from acids and alkalis. Avoid all contact with metals. 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** Ensure adequate ventilation, especially in confined areas.

### Personal Protective Equipment

**Eye/Face Protection**  
**Skin and Body Protection**  
**Respiratory Protection**

Safety glasses with side-shields.  
 Wear protective gloves/clothing.  
 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>                       | 11             |
| <b>Flash Point</b>         | Not applicable   | <b>Autoignition Temperature</b> | Not applicable |
| <b>Boiling Point/Range</b> | ca. 100°C/212°F  |                                 |                |

**Flammability Limits in Air** Not applicable

|                       |                          |                      |                          |
|-----------------------|--------------------------|----------------------|--------------------------|
| <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** Strong acids. Metals.

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

**Hazardous Decomposition Products** Sodium oxides.

**Hazardous Reactions** Contact with metals may evolve flammable hydrogen gas.

**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

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

## 13. DISPOSAL CONSIDERATIONS

### Waste Disposal Method

Dispose according to federal, state, and local regulations. If permitted, neutralize reagent with acid and rinse to drain with excess water.

| 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 Not regulated

IATA Not regulated

IMDG/IMO Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

| Component                           | TSCA    | DSL | EINECS/ELINCS | ENCS          | IECSC | KECL     | PICCS | AICS |
|-------------------------------------|---------|-----|---------------|---------------|-------|----------|-------|------|
| Sodium hydroxide 1310-73-2 ( <0.1 ) | Present | X   | X             | 1-410; 2-1972 | X     | KE-31487 | X     | X    |
| Water 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 contains a chemical or 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 | <0.1     | 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**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

| Component                              | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|--|-----------------------------|------------------------|---------------------------|----------------------------|
| Sodium hydroxide<br>1310-73-2 ( <0.1 ) | 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 HAPs.

| Chemical Name    | CAS-No    | Weight % | HAPS data  | VOC Chemicals | Class 1 Ozone Depleters | Class 2 Ozone Depleters |
|------------------|-----------|----------|------------|---------------|-------------------------|-------------------------|
| Sodium hydroxide | 1310-73-2 | <0.1     | 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**

| 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**

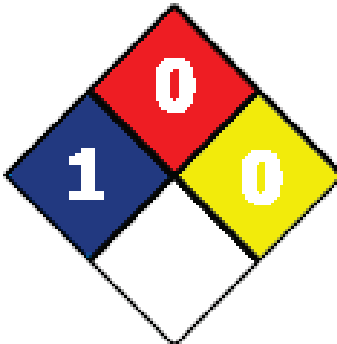

| Chemical Name    | Carcinogen Status | Exposure Limits |
|------------------|-------------------|-----------------|
| Sodium hydroxide | None Known        | None Known      |
| Water            | None Known        | None Known      |

**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 ( <0.1 ) | 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><tr><td>Health Hazard</td><td>2</td></tr><tr><td>Fire Hazard</td><td>0</td></tr><tr><td>Reactivity</td><td>1</td></tr></table> | Health Hazard | 2                | Fire Hazard | 0 | Reactivity | 1 |  |  |
| Health Hazard   | 2   |               |                  |             |   |            |   |  |  |
| Fire Hazard   | 0   |               |                  |             |   |            |   |  |  |
| Reactivity  | 1   |               |                  |             |   |            |   |  |  |

Prepared By

Regulatory Affairs Department

Issuing Date

11/20/2012

Revision Date

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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**