SAFETY DATA SHEET

Preparation Date: 3/19/2014  Revision Date: 08/28/2018  Revision Number: G5

1. IDENTIFICATION

Product identifier

Product code: S1302
Product Name: SODIUM HYDROXIDE, COARSE GRANULAR, TECHNICAL

Other means of identification

Synonyms:
Caustic Soda
Soda Lye
Hydroxyde de sodium (French)
Hidróxido de sodio (Spanish)

CAS #: 1310-73-2
RTECS #: WB4900000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against: No information available

Supplier:
Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA  90248
(310) 516-8000

Order Online At: https://www.spectrumchemical.com
Emergency telephone number: Chemtrec 1-800-424-9300
Contact Person:
Martin LaBenz (West Coast)
Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

<table>
<thead>
<tr>
<th>Hazard Statement</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Dermal</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 1 Sub-category A</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 1</td>
</tr>
<tr>
<td>Corrosive to metals</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Label elements

Danger

Hazard statements
Causes severe skin burns and eye damage
Hazard not otherwise classified (HNOC)
Not Applicable

Other hazards
Not available

Precautionary Statements - Prevention
Wear protective gloves/protective clothing/eye protection/face protection
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Keep only in original container

Precautionary Statements - Response
Immediately call a POISON CENTER or doctor/physician
Absorb spillage to prevent material damage
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
Call a POISON CENTER or doctor/physician if you feel unwell
Wash contaminated clothing before reuse
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Precautionary Statements - Storage
Store locked up
Store in corrosive resistant/ .? container with a resistant inner liner

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you

Product name: SODIUM HYDROXIDE, COARSE GRANULAR, TECHNICAL
have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.

Skin Contact: Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician immediately.

Eye Contact: Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation 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. Immediate medical attention is required. Call a physician immediately.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. If victim is conscious, give water or milk. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed

Symptoms
- Severe skin and eye irritation or burns
- Causes digestive (gastrointestinal) tract irritation
- May cause gastrointestinal (digestive) tract burns
- May cause abdominal pain, nausea, vomiting, diarrhea

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders
First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: Sodium Oxides.
Specific hazards: No information available.

Special Protective Actions for Firefighters

Specific Methods: No information available.
Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus

Product code: S1302  Product name: SODIUM HYDROXIDE, COARSE GRANULAR, TECHNICAL
Pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Use appropriate tools to put the spilled solid in a suitable waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions: Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice
Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store in a segregated and approved area. Store away from incompatible materials.

Incompatible Materials:
Oxidizing agents
Reducing agents
Acids
Bases
Aldehydes
Metals
Powdered metals
Water

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Product code: S1302
Product name: SODIUM HYDROXIDE, COARSE GRANULAR, TECHNICAL
Components | CAS-No. | OSHA | NIOSH | ACGIH | AIHA WEEL
--- | --- | --- | --- | --- | ---
Sodium Hydroxide | 1310-73-2 | 2 mg/m³ TWA | 2 mg/m³ Ceiling | 2 mg/m³ Ceiling | None

Canada

| Components | CAS-No. | Canada - Alberta | Canada - British Columbia | Canada - Ontario | Canada - Quebec |
--- | --- | --- | --- | --- | ---
Sodium Hydroxide | 1310-73-2 | 2 mg/m³ Ceiling | 2 mg/m³ Ceiling | 2 mg/m³ Ceiling | 2 mg/m³ Ceiling

Australia and Mexico

| Components | CAS-No. | Australia | Mexico |
--- | --- | --- | ---
Sodium Hydroxide | 1310-73-2 | None | 2 mg/m³ Ceiling

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles

Skin and body protection: Long sleeved clothing
Gloves
Chemical resistant apron

Respiratory protection: Effective dust mask. Wear respirator with dust filter. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds), inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid

Appearance: Pellets, flakes.

Color: White.

Odor: No information available.

Taste: No information available.

Formula: NaOH

Flammability: No information available

Flashpoint (°C/°F): No information available

Autoignition Temperature (°C/°F): No information available

Lower Explosion Limit (%): No information available

Product code: S1302

Product name: SODIUM HYDROXIDE, COARSE GRANULAR, TECHNICAL
10. STABILITY AND REACTIVITY

Reactivity
Sodium hydroxide + zinc metal dust causes ignition of the latter. Under proper conditions of temperature, pressure and state of division, it can ignite or react violently with acetaldehyde, ally alcohol, allyl chloride, benzene-1,4-diol, chlorine trifluoride, 1,2-dichlorethylene, nitroethane, nitromethane, nitroparaffins, nitropropane, cinnamaldehyde, 2,2-dichloro-3,3-dimethylbutane. Sodium hydroxide in contact with water can generate enough heat to ignite adjacent combustible materials. Phosphorous boiled with NaOH yields mixed phosphines which may ignite spontaneously in air. Sodium hydroxide and cinnamaldehyde + heat may cause ignition. Reaction with certain metals releases flammable and explosive hydrogen gas. Sodium hydroxide reacts to form explosive products with ammonia + silver nitrate. Benzene extract of allyl benzenesulfonate prepared from allyl alcohol, and benzene sulfonyl chloride in presence of aqueous sodium hydroxide, under vacuum distillation, residue darkened and exploded. Sodium Hydroxide + impure tetrahydrofuran, which can contain peroxides, can cause serious explosions. Dry mixtures of sodium hydroxide and sodium tetrahydroborate liberate hydrogen explosively at 230-270 deg. C. Sodium Hydroxide reacts with sodium salt of trichlorophenol + methyl alcohol + trichlorobenzene + heat to cause an explosion. Hygroscopic. Much heat is evolved when solid material is dissolved in water. Therefore cold water and caution must be used for this process. Generates considerable heat when a sodium hydroxide solution is mixed with an acid. Sodium hydroxide solution and octanol + diborane during a work-up of a reaction mixture of oxime and diborane in tetrahyrofuran is very exothermic, a mild explosion being noted on one occasion. Reactive with water, acids (mineral, non-oxidizing, e.g. hydrochloric, hydrofluoric acid, muriatic acid, phosphoric), acids (mineral, oxidizing e.g. chromic acid, hypochlorous acid, nitric acid, sulfuric acid), acids (organic e.g. acetic acid, benzoic acid, formic acid, methanoic acid, oxalic acid), aldehydes (e.g. acetaldehyde, acrolein, chloral hydrate, formaldehyde), carbamates (e.g. carbamoyl, carboburant), esters (e.g. butyl acetate, ethyl acetate, propyl formate), halogenated organics (dibromoethane, hexachlorobenzene, methyl chloride, trichloroethylene), isocyanates (e.g. methyl isocyanate), ketones (acetone, acetophenone, MEK, MIBK), acid chlorides, strong bases, strong oxidizing agents, strong reducing agents, flammable liquids, powdered metals and metals (i.e. aluminum, tin, zinc, hafnium, raney nickel), metals (alkali and alkaline e.g. cesium, potassium, sodium), metal compounds (toxic e.g. beryllium, lead acetate, nickel carbonyl, tetraethyl lead), nitrates (e.g. potassium nitrate, sodium nitrate), nitriles (e.g. acetonitrile, methyl cyanide), nitro compounds (organic e.g. nitrobenzene, nitromethane), acetic anhydride, hydroquinone, chlorohydrin, chlorosulfonic acid, ethylene cyanohydridn, glyoxal, hydrosulfuric acid, oleum, propionolactone, acylonitrile, phorous oxide, chloroethanol, chloroform-methanol, tetrahydroborate, cyanagen azide, 1,2,4,5-tetrachlorobenzene, cinnamaldehyde. Reacts with formaldehyde hydroxide to yield formic acid, and hydrogen.

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Exposure to moisture. Exposure to water. Incompatible materials.

Incompatible Materials: Oxidizing agents Reducing agents Acids

Product code: S1302  Product name: SODIUM HYDROXIDE, COARSE GRANULAR, TECHNICAL
Bases
Aldehydes
Metals
Powdered metals
Water

Hazardous decomposition products:
Sodium oxides.

Other Information
Corrosivity:
No information available

Special Remarks on Corrosivity: Very caustic to aluminum and other metals in the presence of moisture

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Skin. Inhalation. Ingestion.

Acute Toxicity

Component Information

<table>
<thead>
<tr>
<th>Sodium Hydroxide</th>
<th>CAS-No.</th>
<th>1310-73-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50/oral/rat = 140 - 340 mg/kg Oral LD50 Rat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50/oral/mouse = No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50/dermal/rabbit = 1350 mg/kg Dermal LD50 Rabbit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50/dermal/rat = No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50/inhalation/rat = No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50/inhalation/mouse = No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other LD50 or LC50 information = 500 mg/kg Oral LDL (Lowest Lethal Dose) Rabbit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Product Information

LD50/oral/rat = VALUE- Acute Tox Oral = 140 - 340 mg/kg

LD50/oral/mouse = Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = 1350 mg/kg

LD50/dermal/rat
VALUE - Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

Product code: S1302
Product name: SODIUM HYDROXIDE, COARSE GRANULAR, TECHNICAL
Symptoms

Skin Contact: Severe skin irritation. Causes skin burns. May cause deep penetrating ulcers of the skin. Harmful in contact with skin.

Eye Contact: Severe eye irritation. Causes eye burns. May cause corneal damage.

Inhalation Causes severe irritation of the respiratory tract and mucous membranes with coughing, burns, breathing difficulty, and possible coma. Irritation may lead to chemical pneumonitis, pneumoconiosis, fibrosis, and pulmonary edema. Can cause chemical burns to the respiratory tract and mucous membranes It is a respiratory stimulant when inhaled at lower concentrations. It may also affect behavior/central nervous system (convulsions, seizures, ataxia, tremor), cardiovascular system (increase in blood pressure and pulse rate).

Ingestion Causes severe gastrointestinal tract irritation and burns. Causes severe pain, nausea, vomiting, diarrhea, and shock. May cause severe and permanent damage to the digestive tract. May cause perforation of the digestive tract. May cause corrosion and permanent destruction of the esophagus.

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity No information available.

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>IARC</th>
<th>ACGIH - Carcinogens</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.
STOT - repeated exposure: No information available.
Target Organs: Skin, Eyes, Respiratory system.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

*Sodium Hydroxide* - 1310-73-2

Freshwater Fish Species Data: 45.4 mg/L LC50 Oncorhynchus mykiss 96 h static 1
Water Flea Data: 40.4 mg/L EC50 Ceriodaphnia sp. 48h

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT

<table>
<thead>
<tr>
<th>UN-No:</th>
<th>UN1823</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name:</td>
<td>Sodium hydroxide, solid</td>
</tr>
<tr>
<td>Hazard Class:</td>
<td>8</td>
</tr>
<tr>
<td>Subsidiary Class:</td>
<td>No information available</td>
</tr>
<tr>
<td>Packing group:</td>
<td>II</td>
</tr>
<tr>
<td>Emergency Response Guide Number</td>
<td>154</td>
</tr>
<tr>
<td>Marine Pollutant:</td>
<td>No data available</td>
</tr>
<tr>
<td>DOT RQ (lbs):</td>
<td>No information available</td>
</tr>
<tr>
<td>Special Provisions:</td>
<td>IB8, IP2, IP4, T3, TP33</td>
</tr>
<tr>
<td>Symbol(s):</td>
<td>No information available</td>
</tr>
<tr>
<td>Description:</td>
<td>UN1823, Sodium hydroxide, solid, 8, II</td>
</tr>
</tbody>
</table>

TDG (Canada)

<table>
<thead>
<tr>
<th>UN-No:</th>
<th>UN1823</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name:</td>
<td>Sodium hydroxide, solid</td>
</tr>
<tr>
<td>Hazard Class:</td>
<td>8</td>
</tr>
<tr>
<td>Subsidiary Risk:</td>
<td>No information available</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>II</td>
</tr>
</tbody>
</table>

Product code: S1302
Product name: SODIUM HYDROXIDE, COARSE GRANULAR, TECHNICAL
Marine Pollutant: No Information available
Description: UN1823, Sodium hydroxide, solid, 8, II

ADR
UN-No: UN1823
Proper Shipping Name: Sodium hydroxide, solid
Hazard Class: 8
Packing Group: II
Subsidiary Risk: No information available
Description: UN1823, Sodium hydroxide, solid, 8, II

IMO / IMDG
UN-No: UN1823
Proper Shipping Name: Sodium hydroxide, solid
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant: No information available
EMS: F-A
Description: UN1823, Sodium hydroxide, solid, 8, II

RID
UN-No: UN1823
Proper Shipping Name: Sodium hydroxide, solid
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
Description: UN1823, Sodium hydroxide, solid, 8, II

ICAO
UN-No: UN1823
Proper Shipping Name: Sodium hydroxide, solid
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
Description: UN1823, Sodium hydroxide, solid, 8, II

IATA
UN-No: UN1823
Proper Shipping Name: Sodium hydroxide, solid
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
ERG Code: 8L
Special Provisions: No information available
Description: UN1823, Sodium hydroxide, solid, 8, II

15. REGULATORY INFORMATION

International Inventories

|---------------------|---------|-----------|--------------|---------------------|---------------------------|-------|-----------------|------------|

U.S. Regulations

Product code: S1302
Product name: SODIUM HYDROXIDE, COARSE GRANULAR, TECHNICAL
**Sodium Hydroxide**

**Massachusetts RTK:** Present

**New Jersey RTK Hazardous Substance List:** 1706

**New Jersey - Discharge Prevention - List of Hazardous Substances:** Present

**Pennsylvania RTK:** Environmental hazard

**Pennsylvania RTK - Environmental Hazard List** Present

**Minnesota - Hazardous Substance List:** Present

**New York Release Reporting - List of Hazardous Substances:**
- 1000 lb RQ
- 100 lb RQ

**Louisiana Reportable Quantity List for Pollutants:** 1000lbfinal RQ

**California Directors List of Hazardous Substances:** Present

**FDA - Food Additives Generally Recognized as Safe (GRAS):** 21 CFR 184.1763

**FDA - Direct Food Additives** 21 CFR 173.310

**FDA - 21 CFR - Total Food Additives**

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.**

**Chemicals Known to the State of California to Cause Cancer:**
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

**CERCLA/SARA**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>1000 lb final RQ, 454 kg final RQ</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

**U.S. TSCA**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

**Canada**

**WHIMIS 2015 - GHS Classifications**

**WHIMIS 2015 Hazard Classification Information:**

| Component                      | CAS-No. | Corrosive to Metals - Category 1: H290 May be corrosive to metals. (potentially corrosive to metals; the supplier should be contacted for more information); Health Hazard Not Otherwise Classified - Category 1: Causes severe damage to the respiratory tract; Skin corrosion/irritation - Category 1: H314 Causes severe skin burns and eye damage.; Skin corrosion/irritation - Category 2: H315 Causes skin irritation. (0.4% in aqueous solution); Serious |
|--------------------------------|---------|---------------------------------------------------------------------|----------------------------------------|
| Sodium Hydroxide               | 1310-73-2 | WHIMIS 2015 Hazard Classification                                    | WHIMIS 2015 Hazard Classification     |

**Product code:** S1302

**Product name:** SODIUM HYDROXIDE, COARSE GRANULAR, TECHNICAL
Eye Damage/Eye Irritation - Category 1: H318 Causes serious eye damage.; Serious Eye Damage/Eye Irritation - Category 2: H319 Causes serious eye irritation. (0.4% in aqueous solution); Specific target organ toxicity - Single exposure - Category 3: H335 May cause respiratory irritation. (0.4% in aqueous solution)

Canada Hazardous Products Regulation  This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

<table>
<thead>
<tr>
<th>Components</th>
<th>WHMIS Ingredient Disclosure List -</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1 %</td>
</tr>
</tbody>
</table>

Inventory

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Canada (DSL)</th>
<th>Canada (NDSL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>Present</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>CEPA Schedule I - Toxic Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

EU Classification

EU GHS - SV - CLP 1272/2008

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>EU GHS - SV - CLP (1272/2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>Skin corrosion/irritation - Skin Corr. 1A: H314 Causes severe skin burns and eye damage. (C &gt;= 5 %)011-002-00-6; Skin corrosion/irritation - Skin Corr. 1A: H314 Causes severe skin burns and eye damage. (C &gt;= 5 %); Skin corrosion/irritation - Skin Corr. 1B: H314 Causes severe skin burns and eye damage. (2 % &lt;= C &lt;5 %); Skin corrosion/irritation - Skin Irrit. 2: H315 Causes skin irritation. (0.5 % &lt;= C &lt;2 %); Serious Eye Damage/Eye Irritation - Eye Irrit. 2: H319 Causes serious eye irritation. (0.5 % &lt;= C &lt;2 %)011-002-00-6</td>
</tr>
</tbody>
</table>

EU - CLP (1272/2008)

R-phrase(s)

R35 - Causes severe burns.

S -phrase(s)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 1/2 - Keep locked up and out of the reach of children.
S37/39 - Wear suitable gloves and eye/face protection.

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>C; R35</td>
<td>5%&lt;=C</td>
<td>S1/2 S26 S37/39 S45</td>
</tr>
</tbody>
</table>

Product code: S1302  Product name: SODIUM HYDROXIDE, COARSE GRANULAR, TECHNICAL
The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:
C - Corrosive.

16. OTHER INFORMATION

Preparation Date: 3/19/2014
Revision Date: 08/28/2018
Prepared by: Sonia Owen

Disclaimer: All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet