Material Safety Data Sheet
Sodium hydroxide, purum pellets

ACC# 21300

Section 1 - Chemical Product and Company Identification

MSDS Name: Sodium hydroxide, purum pellets
Synonyms: Caustic soda, Aetznatron, soda lye, sodium hydrate
Company Identification:
Fisher Scientific 1 Reagent Lane Fairlawn, NJ 07410
For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Hazard Symbols: C
Risk Phrases: 35

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

**Target Organs:** None.

**Potential Health Effects**

**Eye:** Causes severe eye burns.

**Skin:** Causes skin burns. May cause deep, penetrating ulcers of the skin.

**Ingestion:** Harmful if swallowed. Causes gastrointestinal tract burns. Causes severe pain, nausea, vomiting, diarrhea, and shock.

**Inhalation:** Irritation may lead to chemical pneumonitis and pulmonary edema. Causes severe upper respiratory tract with coughing, burns, breathing difficulty, and possible coma.

**Chronic:** Prolonged or repeated skin contact may cause dermatitis.

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**Section 4 - First Aid Measures**

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper lids. Get medical aid immediately.

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Discard contaminated clothing in a limits further exposure.

**Ingestion:** Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

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**Section 5 - Firefighting Measures**

**General Information:** Wear appropriate protective clothing to prevent contact with skin and eyes. Use self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products and in flooding amounts. Contact with moisture or water may generate sufficient heat to cause a chemical reaction.

**Extinguishing Media:** For small fires, use dry chemical, carbon dioxide, water spray or alcohol-based foam.

**Autoignition Temperature:** Not available.

**Flash Point:** Not available. Estimated Health: 3; Flammability: 0; Reactivity: 1 Explosion Limit available. Upper: Not available.

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**Section 6 - Accidental Release Measures**

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Avoid dusty conditions.

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**Section 7 - Handling and Storage**

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Do not allow water container because of violent reaction. Do not get in eyes, on skin, or on clothing. Do not ingest.

**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Keep acids. Keep away from water. Keep away from metals. Keep away from flammable liquids. Keep away from organic halogens. Corrosives area.
Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne co below the permissible exposure limits.

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
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</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>C 2 mg/m³</td>
<td>10 mg/m³ IDLH</td>
<td>2 mg</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Sodium hydroxide: No OSHA Vacated PELs are listed for this chemical

Personal Protective Equipment

Eyes: Wear safety glasses and chemical goggles or face shield if handling liquids.

Skin: Wear impervious gloves.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A NIOSH/MSHA approved air purifying dust or mist respirator or European Stan

Section 9 - Physical and Chemical Properties

Physical State: Solid
Appearance: white
Odor: odorless
pH: Not available.
Vapor Pressure: 100 mm Hg
Vapor Density: Not available.
Evaporation Rate:
Viscosity: Not available.
Boiling Point: 1390760.00 deg C
Freezing/Melting Point: 318 deg C
Decomposition Temperature: Not available.
Solubility: 1 g/0.9 ml water
Specific Gravity/Density: 2.1300g/cm3
Molecular Formula: HNaO
Molecular Weight:

Section 10 - Stability and Reactivity

Chemical Stability: Stable.
Conditions to Avoid: Incompatible materials, moisture, contact with water, acids.
Incompatibilities with Other Materials: Generates large amounts of heat when in contact wi may steam and spatter. Reacts with mineral acids to form corresponding salts; reacts with we like hydrogen sulfide, sulfur dioxide, and carbon dioxide; ignites when in contact with cinnamal and reacts explosively with a mixture of chloroform and methane. Corrosive to metals such as and zinc as well as to alloys such as steel, and may cause formation of flammable hydrogen g
Hazardous Decomposition Products: Toxic fumes of sodium oxide, sodium peroxide fumes
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 1310-73-2: WB4900000
LD50/LC50:
Not available.

Carcinogenicity: CAS# 1310-73-2: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: No information reported.
**Section 12 - Ecological Information**

**Ecotoxicity:** TLm, mosquito fish, 125 ppm/96hr. (fresh water); TLm, bluegill, 99 mg/48hr. (tap.

**Environmental Fate:** This chemical is not mobile in solid form, although it absorbs moisture, liquid, sodium hydroxide leaches rapidly into the soil, possibly contaminating water sources.

**Physical/Chemical:** No information found.

**Other:** No information found.

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**Section 13 - Disposal Considerations**

Dispose of in a manner consistent with federal, state, and local regulations.

**RCRA D-Series Maximum Concentration of Contaminants:** None listed.

**RCRA D-Series Chronic Toxicity Reference Levels:** None listed.

**RCRA F-Series:** None listed.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

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**Section 14 - Transport Information**

<table>
<thead>
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<th>US DOT</th>
<th>IATA</th>
<th>RID/ADR</th>
<th>IMO</th>
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<tbody>
<tr>
<td><strong>Shipping Name:</strong></td>
<td><strong>SODIUM HYDROXIDE, SOLID</strong></td>
<td><strong>SODIUM HYDROXIDE, SOLID</strong></td>
<td><strong>SODIUM HYDROXIDE, SOLID</strong></td>
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<tr>
<td><strong>Hazard Class:</strong></td>
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<td>88(41B)</td>
<td>88(9.2)</td>
</tr>
<tr>
<td><strong>UN Number:</strong></td>
<td>UN1823</td>
<td>UN1823UN1823</td>
<td>UN1823UN1823</td>
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<tr>
<td><strong>Packing Group:</strong></td>
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<td>II</td>
<td>III</td>
</tr>
</tbody>
</table>

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**Section 15 - Regulatory Information**

**US FEDERAL**

**TSCA**

CAS# 1310-73-2 is listed on the TSCA inventory.

**Health & Safety Reporting List**

None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**

None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**

None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**

None of the chemicals in this material have a SNUR under TSCA.

**SARA**

Section 302 (RQ)
CAS# 1310-73-2: final RQ = 1000 pounds (454 kg)

**Section 302 (TPQ)**
None of the chemicals in this product have a TPQ.

**SARA Codes**
CAS # 1310-73-2: acute, reactive.

**Section 313**
No chemicals are reportable under Section 313.

**Clean Air Act:**
This material does not contain any hazardous air pollutants. This material does not contain an
depleters. This material does not contain any Class 2 Ozone depleters.

**Clean Water Act:**
CAS# 1310-73-2 is listed as a Hazardous Substance under the CWA. None of the chemicals i
are listed as Priority Pollutants under the CWA. None of the chemicals in this product are liste
Pollutants under the CWA.

**OSHA:**
None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**
CAS# 1310-73-2 can be found on the following state right to know lists: California, New Jer
Pennsylvania, Minnesota, Massachusetts.

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations**
**European Labeling in Accordance with EC Directives**

**Hazard Symbols:**

C

**Risk Phrases:**
R 35 Causes severe burns.

**Safety Phrases:**
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical ad
Wear suitable gloves and eye/face protection. S 45 In case of accident of if you feel unwell, se
advice immediately (show the label where possible).

**WGK (Water Danger/Protection)**
CAS# 1310-73-2: 1

**Canada**
CAS#1310-73-2 is listed on Canada's DSL/NDSL List.

This product has a WHMIS classification of E.

CAS# 1310-73-2 is not listed on Canada's Ingredient Disclosure List.

**Exposure Limits**
CAS# 1310-73-2: OEL-AUSTRALIA:TWA 2 mg/m3 OEL-BELGIUM:STEL 2 mg/m3
OEL-DENMARK:TWA 2 mg/m3 OEL-FINLAND:TWA 2 mg/m3 OEL-FRANCE:TWA 2 mg/
m3 OEL-GERMANY:TWA 2 mg/m3 OEL-JAPAN:STEL 2 mg/m3 OEL-THE NETHERLA
NDS:TWA 2 mg/m3 OEL-THE PHILIPPINES:TWA 2 mg/m3 OEL-SWEDEN:TWA 2 mg/
m3 OEL-SWITZERLAND:TWA 2 mg/m3;STEL 4 mg/m3 OEL-THAILAND:TWA 2 mg/m3
OEL-TURKEY:TWA 2 mg/m3 OEL-UNITED KINGDOM:TWA 2 mg/m3;STEL 2 mg/m3
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW
ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

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**Section 16 - Additional Information**

**MSDS Creation Date:** 4/25/1995

**Revision #21 Date:** 12/12/1997

The information above is believed to be accurate and represents the best information currently available to us. How
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