SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product form : Mixture
Product name : Sodium Hydroxide, 0.1N (0.1M)
Product code : LC24270

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture : For laboratory and manufacturing use only.

1.3. Details of the supplier of the safety data sheet
LabChem Inc
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number
Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
GHS-US classification
Not classified

2.2. Label elements
GHS-US labelling
No labelling applicable

2.3. Other hazards
Other hazards not contributing to the classification : None.

2.4. Unknown acute toxicity (GHS-US)
No data available

SECTION 3: Composition/information on ingredients

3.1. Substance
Not applicable
Full text of H-phrases: see section 16

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS No) 7732-18-5</td>
<td>99.6</td>
<td>Not classified</td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>(CAS No) 1310-73-2</td>
<td>0.4</td>
<td>Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1. Description of first aid measures
First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.
First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/injuries upon intravenous administration : Not available.
**Sodium Hydroxide, 0.1N (0.1M)**

**Safety Data Sheet**

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**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**


Unsuitable extinguishing media: Not available. Do not use a heavy water stream.

**5.2. Special hazards arising from the substance or mixture**

Fire hazard: Not flammable.

Explosion hazard: Not available.

Reactivity: None.

**5.3. Advice for firefighters**

Firefighting instructions: In case of fire: stop leak if safe to do so. When cooling/extinguishing: no water in the substance. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Other information: Not available.

---

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

General measures: Eliminate ignition sources. Ensure adequate ventilation. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

**6.1.1. For non-emergency personnel**

Protective equipment: Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact.


**6.1.2. For emergency responders**

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Stop leak if safe to do so.

**6.2. Environmental precautions**

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

**6.3. Methods and material for containment and cleaning up**

For containment: Take up liquid spill into inert absorbent material.

Methods for cleaning up: Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

**6.4. Reference to other sections**

See Heading 8. Exposure controls and personal protection.

---

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Additional hazards when processed: May be corrosive to metals.

Precautions for safe handling: Do not get in eyes, on skin, or on clothing. Remove contaminated clothing immediately. Use corrosion-proof equipment. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures: Wash contaminated clothing before reuse.

**7.2. Conditions for safe storage, including any incompatibilities**

Storage conditions: Keep container closed when not in use.

Incompatible products: metals. Strong acids.

Incompatible materials: Sources of ignition. Direct sunlight.

Storage temperature: 5 - 30 °C

Prohibitions on mixed storage: KEEP SUBSTANCE AWAY FROM: (strong) acids. metals. metal powders.

Storage area: Keep locked up. Store in a well-ventilated place. Keep only in the original container.

Special rules on packaging: SPECIAL REQUIREMENTS: corrosion-proof.

Packaging materials: Do not store in corrosable metal.
SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Sodium Hydroxide (1310-73-2)</th>
<th>USA ACGIH</th>
<th>ACGIH Ceiling (mg/m³)</th>
<th>2 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>2 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.


Hand protection: Wear protective gloves.

Eye protection: Chemical goggles or safety glasses.

Respiratory protection: Wear appropriate mask.

Thermal hazard protection: None necessary.

Other information: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Appearance: Clear, colorless liquid.

Colour: Colourless.

Odour: None.

Odour threshold: No data available

pH: No data available

Relative evaporation rate (butylacetate=1): No data available

Melting point: No data available

Freezing point: No data available

Boiling point: No data available

Flash point: No data available

Self ignition temperature: No data available

Decomposition temperature: No data available

Flammability (solid, gas): No data available

Vapour pressure: No data available

Relative vapour density at 20 °C: No data available

Relative density: No data available

Density: 1 g/ml

Solubility: Soluble in water.

Log Pow: No data available

Log Kow: No data available

Viscosity, kinematic: 1.02 cSt

Viscosity, dynamic: No data available

Explosive properties: Not applicable.

Oxidising properties: None.

Explosive limits: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None.
### Sodium Hydroxide, 0.1N (0.1M)

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#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

Not established.

#### 10.4. Conditions to avoid

Incompatible materials.

#### 10.5. Incompatible materials

Metals. Strong acids.

#### 10.6. Hazardous decomposition products

Sodium oxide.

#### SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Not classified</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sodium Hydroxide, 0.1N (0.1M)</strong></td>
<td></td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>337500 mg/kg</td>
</tr>
<tr>
<td><strong>Water (7732-18-5)</strong></td>
<td></td>
</tr>
<tr>
<td>LD50 oral rat</td>
<td>≥ 90000 mg/kg</td>
</tr>
<tr>
<td><strong>Sodium Hydroxide (1310-73-2)</strong></td>
<td></td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>1350 mg/kg (Rabbit; Literature, Rabbit; Literature)</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.


Symptoms/Injuries upon intravenous administration : Not available.

Chronic symptoms : Not available.

#### SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

| **Sodium Hydroxide, 0.1N (0.1M)** | |
| LC50 fishes 1 | 11350 mg/l |
| EC50 Daphnia 1 | 10125 mg/l |

| **Sodium Hydroxide (1310-73-2)** | |
| LC50 fishes 1 | 45.4 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); SOLUTION >=50%) |
| EC50 Daphnia 1 | 40.4 mg/l (48 h; Ceriodaphnia sp.; NOMINAL CONCENTRATION) |
| LC50 fish 2 | 189 mg/l (48 h; Leuciscus idus) |
| TLM fish 1 | 99 mg/l (48 h; Lepomis macrochirus) |
| TLM fish 2 | 125 ppm (96 h; Gambusia affinis) |

12.2. Persistence and degradability

| **Sodium Hydroxide, 0.1N (0.1M)** | |
| Persistence and degradability | Not established. |
Sodium Hydroxide, 0.1N (0.1M)

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<table>
<thead>
<tr>
<th>Sodium Hydroxide (1310-73-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
</tr>
<tr>
<td>Biochemical oxygen demand (BOD)</td>
</tr>
<tr>
<td>Chemical oxygen demand (COD)</td>
</tr>
<tr>
<td>ThOD</td>
</tr>
<tr>
<td>BOD (% of ThOD)</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

Sodium Hydroxide, 0.1N (0.1M)

Bioaccumulative potential Not established.

Sodium Hydroxide (1310-73-2)

Bioaccumulative potential Bioaccumulation: not applicable.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

No dangerous good in sense of transport regulations

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Sodium Hydroxide (1310-73-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

RQ (Reportable quantity, section 304 of EPA's List of Lists) : 1000 lb

SARA Section 311/312 Hazard Classes Immediate (acute) health hazard

15.2. International regulations

CANADA

Sodium Hydroxide, 0.1N (0.1M)

WHMIS Classification Uncontrolled product according to WHMIS classification criteria

Sodium Hydroxide (1310-73-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification Class E - Corrosive Material

EU-Regulations

No additional information available
Sodium Hydroxide, 0.1N (0.1M)
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Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC
Not classified

15.2. National regulations

Sodium Hydroxide (1310-73-2)
Listed on the Canadian Ingredient Disclosure List

15.3. US State regulations

Sodium Hydroxide (1310-73-2)

SECTION 16: Other information

Other information: None.

Full text of H-phrases: see section 16:

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Dermal)</th>
<th>Acute toxicity (dermal), Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Acute 3</td>
<td>Hazardous to the aquatic environment — AcuteHazard, Category 3</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation, Category 1</td>
</tr>
<tr>
<td>Skin Corr. 1A</td>
<td>Skin corrosion/irritation, Category 1A</td>
</tr>
<tr>
<td>H312</td>
<td>Harmful in contact with skin</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H402</td>
<td>Harmful to aquatic life</td>
</tr>
</tbody>
</table>

NFPA health hazard: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA fire hazard: 0 - Materials that will not burn.
NFPA reactivity: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

HMIS III Rating

Health: 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability: 0 Minimal Hazard
Physical: 0 Minimal Hazard
Personal Protection: B

SDS US (GHS HazCom 2012)

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