

### 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.

### 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

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

### 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 after ingestion : Abdominal pain. Nausea.  
 Symptoms/injuries upon intravenous administration : Not available.

# Sodium Hydroxide, 0.1N (0.1M)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Chronic symptoms : Not available.

### 4.3. Indication of any immediate medical attention and special treatment needed

Obtain medical assistance.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.  
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.  
Emergency procedures : Wash contaminated clothes. Keep containers closed. Evacuate unnecessary personnel.

#### 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 corrosionproof 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 corrodable metal.

# Sodium Hydroxide, 0.1N (0.1M)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Sodium Hydroxide (1310-73-2)		
USA ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>

### 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.

Personal protective equipment : Gloves. Safety glasses. Protective clothing. Head/neck protection. Avoid all unnecessary 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)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 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

Acute toxicity : Not classified

Sodium Hydroxide, 0.1N (0.1M)	
LD50 dermal rabbit	337500 mg/kg

Water (7732-18-5)	
LD50 oral rat	≥ 90000 mg/kg

Sodium Hydroxide (1310-73-2)	
LD50 dermal rabbit	1350 mg/kg (Rabbit; Literature,Rabbit; Literature)

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

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 after ingestion : Abdominal pain. Nausea.

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)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Sodium Hydroxide (1310-73-2)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

### 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

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## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

### Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

### 15.2.2. National regulations

#### Sodium Hydroxide (1310-73-2)

Listed on the Canadian Ingredient Disclosure List

### 15.3. US State regulations

#### Sodium Hydroxide (1310-73-2)

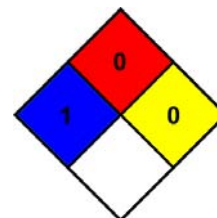
## SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

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

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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