



### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Name: AC-50

Manufacturer and Supplier: CHEM CLEAN LTD

Address: #58-60 Century Drive  
Trincity Industrial Estate  
Macoya  
Trinidad & Tobago

**EMERGENCY TELEPHONE NUMBER (868) 223 2436**

Recommended use: Liquid Sodium Hydroxide (50%)

Restriction on use: Not to be used on aluminium or galvanized surfaces. For specific intended use guidance, please refer to the information provided on the package or Product Data Sheet.

### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Corrosive to metals Category 1

Skin corrosion Category 1B

Serious eye damage: Category 1

#### GHS Label element

Hazard pictograms:



Signal Word:	Danger
Hazard Statements:	H290: May be corrosive to metals. H302: Harmful if swallowed. H314: Causes severe burns and eye damage.
Precautionary Statements:	P102: Keep out of reach of children. P103: Read label before use.
Prevention Precautionary Statements:	P233: Keep container tightly closed. P262: Do not get in eyes, on skin, or on clothing P264: Wash hands thoroughly after handling P280: Wear protective gloves/protective clothing/eye protection
Response Precautionary Statements:	P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
Storage Precautionary Statements:	P404: Store in a closed container.  P403+233: Store in a well ventilated place. Keep container tightly closed.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

CAS	CHEMICAL NAME	CONCENTRATION %
1310-73-2	Sodium Hydroxide	48-52

#### 4. FIRST AID MEASURES

General Advice	<ul style="list-style-type: none"> <li>◆ In the case of accident or if you feel unwell, seek medical advice immediately.</li> <li>◆ Show this Safety Data Sheet to the Doctor in attendance.</li> </ul>
Skin Contact	<ul style="list-style-type: none"> <li>◆ Immediately flush skin with plenty of cool running water for at least 15 minutes.</li> <li>◆ Immediately remove contaminated clothing.</li> <li>◆ Wash contaminated clothing before reuse.</li> <li>◆ Immediate medical attention is required if irritation persists or burns develop.</li> </ul>
Eye Contact	<ul style="list-style-type: none"> <li>◆ Rinse cautiously with water for several minutes.</li> <li>◆ Remove contact lens (if worn) and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.</li> <li>◆ Immediate medical attention is required if symptoms persist.</li> </ul>
Inhalation	<ul style="list-style-type: none"> <li>◆ If breathing is difficult, move victim to fresh air and keep at rest in a position comfortable for breathing.</li> <li>◆ If not breathing, give artificial respiration.</li> <li>◆ Medical attention is required if symptoms persist.</li> </ul>
Ingestion	<ul style="list-style-type: none"> <li>◆ If swallowed, rinse mouth thoroughly.</li> <li>◆ DO NOT induce vomiting.</li> <li>◆ Immediate medical attention is required if symptoms persist.</li> </ul>

#### 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	<ul style="list-style-type: none"> <li>◆ Water – spray</li> <li>◆ Alcohol-resistant foam</li> <li>◆ Dry chemical or carbon dioxide</li> </ul>
Extinguishing media which must not be used for safety reasons	<ul style="list-style-type: none"> <li>◆ Adding water to caustic generates excessive amounts of heat.</li> </ul>
Specific Hazards	<ul style="list-style-type: none"> <li>◆ To minimize gas generation, flood burning material with large quantities of water.</li> <li>◆ Cool exposed containers with water spray to prevent pressure build-up.</li> <li>◆ Must wear NIOSH approved self-contained breathing apparatus and protective clothing.</li> </ul>
Special exposure hazards arising from the substance, or preparation itself, its combustion products or released gases	<ul style="list-style-type: none"> <li>◆ Material is corrosive.</li> <li>◆ May ignite combustible materials and produce noxious gases.</li> <li>◆ Avoid exposure to dusts, mists and splashes.</li> <li>◆ Airborne dusts of this material, in an enclosed space</li> </ul>

	and in the presence of an ignition source may constitute an explosion hazard.
Special Protective Equipment for fire-fighters	<ul style="list-style-type: none"> <li>◆ As in any fire, wear NIOSH approved self-contained breathing apparatus and full protective gear.</li> </ul>
Specific Methods	<ul style="list-style-type: none"> <li>◆ Cool containers / Tanks with water spray.</li> <li>◆ Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.</li> </ul>

## 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	<ul style="list-style-type: none"> <li>◆ Ensure adequate ventilation.</li> <li>◆ Do not get in eyes or on skin, do not swallow</li> <li>◆ Use personal protective equipment.</li> </ul>
Environmental Precautions	<ul style="list-style-type: none"> <li>◆ Discharge in accordance with Government Regulations.</li> </ul>
Methods for cleaning up	<ul style="list-style-type: none"> <li>◆ Wear personal protective clothing.</li> <li>◆ Small spills: Wash down with large quantities of water in sanitary sewer.</li> <li>◆ Large spills: Dike to prevent runoff. Reclaim as much as possible. Dilute residues with water and neutralize with dilute acid such as acetic or hydrochloric. Absorb remainder with inert material (sand or vermiculite) and place in compatible container for disposal.</li> </ul>

## 7. HANDLING AND STORAGE

### HANDLING

Technical Measures/Precautions	<ul style="list-style-type: none"> <li>◆ Avoid contact with skin, eyes and clothing.</li> <li>◆ Do not get in eyes or on skin, do not swallow.</li> <li>◆ Ensure adequate ventilation.</li> <li>◆ KEEP OUT OF REACH OF CHILDREN.</li> </ul>
Safe Handling Advice	<ul style="list-style-type: none"> <li>◆ Avoid contact with skin, eyes and clothing.</li> <li>◆ Wash hands immediately after contact to avoid hand-eye transfer.</li> <li>◆ In case of insufficient ventilation, wear suitable NIOSH respiratory equipment.</li> </ul>

### STORAGE

Technical Measures/Precautions	<ul style="list-style-type: none"> <li>◆ Keep containers tightly closed in a cool, dry and well ventilated place away from sources of heat, moisture and incompatibilities.</li> <li>◆ Store in properly labeled containers.</li> </ul>
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	<ul style="list-style-type: none"> <li>◆ Do not stack empty containers.</li> <li>◆ Do not reuse empty containers – they may contain residues and can be dangerous.</li> <li>◆ Do not mix with anything but water.</li> <li>◆ Store above 16C (60F) to prevent freezing.</li> <li>◆ Always add the caustic to water while stirring; never the reverse.</li> </ul>
Incompatible Products	<ul style="list-style-type: none"> <li>◆ Avoid contact with concentrated acids.</li> <li>◆ Avoid contact with aluminum, zinc, magnesium other soft metal or galvanized metal.</li> <li>◆ Avoid contact with organic materials.</li> </ul>

## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

<u>Engineering Measures</u>	<ul style="list-style-type: none"> <li>◆ Airborne Exposure Limits: <ul style="list-style-type: none"> <li>- OSHA Permissible Exposure Limit (PEL): 2 mg/m<sup>3</sup> Ceiling</li> <li>- ACGIH Threshold Limit Value (TLV): 2 mg/m<sup>3</sup> Ceiling</li> </ul> </li> <li>◆ Local exhaust is recommended to keep exposures below the Airborne Exposure Limits.</li> </ul>
<u>Personal Protective Equipment</u>	
Hand Protection	<ul style="list-style-type: none"> <li>◆ Neoprene or rubber gloves</li> </ul>
Eye Protection	<ul style="list-style-type: none"> <li>◆ Tightly fitting chemical splash goggles</li> <li>◆ For continued or severe exposure wear a face shield over goggles</li> <li>◆ Safety eyebath nearby</li> </ul>
Respiratory Protection	<ul style="list-style-type: none"> <li>◆ A full-face piece particulate respirator (NIOSH type N100 filters) is required.</li> </ul>
Skin and Body Protection	<ul style="list-style-type: none"> <li>◆ Use chemical protective clothing for repeated or prolonged contact</li> <li>◆ Coveralls, apron, gloves, rubber boots should be worn</li> </ul>
Hygiene Measures	<ul style="list-style-type: none"> <li>◆ Keep away from food, drink and feed</li> <li>◆ When using, do not eat, drink or smoke</li> <li>◆ Regular cleaning of equipment, work area and clothing</li> <li>◆ Wear suitable gloves and eye/face protection</li> <li>◆ For environmental protection, remove and wash all contaminated protective equipment before re-use</li> </ul>

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear Liquid
Color:	Colourless
Odor:	Odorless
pH (1% solution)	12.0 – 14.0
Specific Gravity:	1.475 – 1.52
Boiling Point:	> 110°C (> 230 F)
Melting Point	1°C ( 33.8 F)
Viscosity (CSTS)	Not specified
Solubility in water	100%
Vapor Pressure	N/A
Vapor Density:	N/A
Evaporation Rate:	N/A
VOCs:	N/A

## 10. STABILITY AND REACTIVITY

Stability	<ul style="list-style-type: none"> <li>◆ Normally Stable</li> <li>◆ Sodium Hydroxide rapidly absorbs carbon dioxide from the air forming sodium carbonate.</li> </ul>
Conditions to avoid	<ul style="list-style-type: none"> <li>◆ Heat</li> <li>◆ Moisture</li> </ul>
Materials to avoid	<ul style="list-style-type: none"> <li>◆ Contact with concentrated acids; may cause violent reactions.</li> <li>◆ Contact with organic halogen compounds, especially trichloroethylene.</li> <li>◆ Contact with nitro compounds such as nitromethane, causes formation of shock-sensitive salts.</li> <li>◆ Contact with aluminum, zinc and other soft metals or galvanized metals.</li> </ul>
Hazardous Decomposition Products	<ul style="list-style-type: none"> <li>◆ Sodium oxide: decomposition by reaction with certain metals releases flammable and explosive hydrogen gas.</li> </ul>
Polymerization	<ul style="list-style-type: none"> <li>◆ Will not occur.</li> </ul>

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Component Information

#### Product Information

LD50 /LC50:	Draize test, rabbit, eye: 400 µg mild; Draize test, rabbit, eye, 1% severe; Draize test, rabbit, skin, 500 mg/24H, severe
<u>Local effects</u>	Corrosive
Skin irritation	Causes severe burns
Eye irritation	Causes severe burns
Sensitization	Skin sensitizer
<u>Specific effects</u>	Can cause severe scarring of tissue and death may result. Can cause chemical burns of mouth, throat and stomach, and serious damage to tissues, if ingested.
Carcinogenic Effects	Not listed by IARC or ACGIH
Mutagenic Effects	Investigated as a mutagen
Reproductive toxicity	Not available
Target Organ Effects	Not available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity effects

Liquid sodium hydroxide leaches rapidly into the soil. In sufficient quantity, this product may be hazardous when released around fish.

#### Component Information

#### Product information

Aquatic Toxicity: May cause shifts in water pH outside the range of pH 5-10. This change may be toxic to aquatic organisms. Do not discharge into lakes, streams, ponds or public waterways unless in accordance with Government Regulations.

#### Other Information

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

### 13. DISPOSAL CONSIDERATIONS

Waste from residues/Unused products	Do not discharge into lakes, streams, ponds or public waterways unless in accordance with Government Regulations. Consult the Environmental Protection Agency before disposing of any chemicals. Refer to the Environmental Management Authority (EMA) for complete waste disposal regulations for corrosive materials
Contaminated Packaging	Empty containers should be taken for recycling, recovery or waste disposal.

### 14. TRANSPORT INFORMATION

#### Domestic (Land, D.O.T.)

UN Number: 1824  
 UN Proper Shipping Name: SODIUM HYDROXIDE SOLUTION  
 Hazard label: 8  
 Packing Group: II

#### International (IMDG, I.M.O.)

UN Number: 1824  
 UN Proper Shipping Name: SODIUM HYDROXIDE SOLUTION  
 Transport Hazard Class: 8  
 Packing Group: II  
 Marine pollutant: No  
 Limited Quantities: 1L  
 Packing Instructions: P001  
 IBC Instructions: IBC02  
 EmS: F-A, S-B  
 Stowage and segregation: Category A



#### Air transport (IATA)

UN Number: 1824  
 UN Proper Shipping Name: SODIUM HYDROXIDE SOLUTION  
 Hazard Class: 8  
 Packaging Group: II  
 Limited Quantities: 0.5L



**15. REGULATORY INFORMATION**

OSHA: This product is classified as corrosive by definition of Hazard Communication Standard (29 CFR 1910.1200).

**16. OTHER INFORMATION**

Literary Reference      Industrial Product

Other                      The information in the Safety Data Sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, we assume no liability resulting from use of SDS information.

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End of Safety Data Sheet