

عمان كلورين ش.م.ع.م. OMAN CHLORINE S.A.O.G.

MATERIAL SAFETY DATA SHEET

MSDS NUMBER : 03 **PAGE 1 OF 11**
PRODUCT NAME : CAUSTIC SODA LIQUID (MEMBRANE GRADE)
MANUFACTURER : M/S OMAN CHLORINE S.A.O.G
SOHAR INDUSTRIAL ESTATE
POST BOX: 35, POSTAL CODE: 327
SOHAR, SULTANATE OF OMAN

For emergency contact: 24 hours emergency Tel: (00968) 26751956

For other information and MSDS contact:

TEL: (00968) 24.695839 FAX: (00968) 24.695768

SATURDAY - WEDNESDAY 8:30 a.m. - 1:30 pm. & 4-30pm - 6:30 pm.

THURSDAY: 8:30 a.m. - 1:30 p.m. Email: omancl2@omantel.net.om

I. PRODUCT IDENTIFICATION

HMIS HAZARD RATING:
HEALTH HAZARD 3 FIRE HAZARD 0 REACTIVITY 2

Based on the National Paint and Coating Association HMIS rating system

SARA/TITLE III HAZARD CATEGORIES

Immediate (Acute) Health : YES Reactive Hazard : YES

Delayed (Chronic) Health : NO Sudden Release of Pressure : ND

Fire Hazard : NO

CHEMICAL NAME : Sodium Hydroxide, CAS Number: 1310-73-2

SYNONYMS/COMMON NAMES: Sodium Hydroxide NaOH

CHEMICAL FORMULA : NaOH

SHIPPING NAME : Sodium Hydroxide Solution

DOT HAZARD CLASS : 8

DOT I.D. NUMBER : UN 1824



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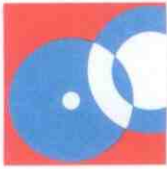
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المصنع : ص.ب : ٣٥

الرمز البريدي : ٣٢٧ ، صحرار ، سلطنة عمان

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II. HEALTH HAZARD INFORMATION

EMERGENCY AND FIRST AID PROCEDURES

EYE:

OBJECT IS TO FLUSH MATERIAL OUT IMMEDIATELY AND THEN GET MEDICAL ATTENTION, IMMEDIATELY. Flush eyes with large amounts of water at least 15 minutes, holding lids apart to ensure flushing of entire surface. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN:

IMMEDIATELY wash with plenty of water for at least 15 minutes. Remove contaminated clothing and footwear. Wash clothing before reuse and discard footwear, which cannot be decontaminated. GET MEDICAL ATTENTION IMMEDIATELY.

INHALATION:

Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, give mouth-to-mouth resuscitation. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION:

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. If available, give several glasses of milk. If vomiting occurs spontaneously, keep airway clear. GET MEDICAL ATTENTION IMMEDIATELY.

ROUTES OF EXPOSURE

INHALATION:

Breathing dust, mist or spray may cause damage to the upper respiratory tract and lung tissue proper which could produce chemical pneumonia, depending upon severity of exposure.

SKIN:

Contact produces severe burns and destroys tissues. Irritation may be delayed.

EYE CONTACT:

Cause severe burns that result in damage to the eyes and possibly blindness.

INGESTION:

Cause severe burns that result in damage of the mouth, throat, esophagus and stomach.



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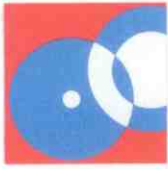
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EFFECT OF OVER EXPOSURE

ACUTE:

Corrosive to all body tissues by all routes of exposure. The effect of local dermal exposure may consist of multiple areas of superficial destruction of the skin or of primary irritant dermatitis. Similarly, inhalation of dust, spray, or mist may result in varying degrees of irritation of damage to the respiratory tract tissues and an increased susceptibility to respiratory illness.

TOXICOLOGY DATA:

Caustic Soda is a corrosive material.

Sodium Hydroxide:

Acute dermal LD50

(rabbit)

1350 mg/kg

Human Dermal Exposure

Regardless of concentrations, the severity of damage and extent of its irreversibility increases with length of contact time. Prolonged contact with sodium hydroxide solutions of \Rightarrow 1% can following skin contact during which no sensation of irritation occurs, varies from several hours for 0.4-4% solution to 3 minutes with concentrations of 25% or greater.

SYNERGISTIC MATERIALS:

None known

III. IMPORTANT COMPONENTS

CAS NUMER/NAME

7732185 WATER

EXPOSURE LIMITS

PEL : Not established

TLV: Not established

PERCENTAGE

Vol ND

Wt. 49 Min.

COMMON NAMES:

Listed on (List Legend Below)

19 23



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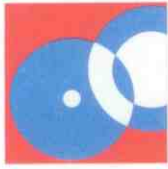
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1310732 Sodium Hydroxide ((NaOH))

EXPOSURE LIMITS

PEL : 2 mg/m³ ceiling
TLV: 2 mg/m³ ceiling

PERCENTAGE

Vol. ND
Wt. 49 Min.

COMMON NAMES:

CAUSTIC SODA

Listed on (List Legend Below):

7647145 Sodium Hydroxide (NaOH)

EXPOSURE LIMITS

PEL: Not established
TLV: Not established

PERCENTAGE

Vol. ND
Wt. 0-0.01

COMMON NAMES

SALT

Listed on (List Legend Below)

23

7755099 Chloric acid, sodium salt

EXPOSURE LIMITS

PEL : Non established
TLV: Non established

PERCENTAGE

Vol. ND
Wt. 0-0.01

COMMON NAMES:

SODIUM CHLORATE

Listed On (List Legend Below)

12 21



IV. FIRE AND EXPLOSION DATA

FLASH POINT : Not applicable
AUTOIGNITION TEMPERATURE : Non flammable

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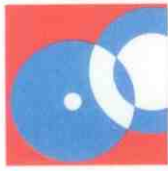
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(Continue: IV. Fire and Explosion Data)

FLAMMABLE LIMITS IN AIR

% BY VOLUME

UPPER

: Not applicable

LOWER

: Not applicable

EXTINGUISHING MEDIA:

This product is not combustible. Foam, carbon dioxide or dry chemical may be used where this product is stored.

SPECIAL FIRE FIGHTING PROCEDURES:

Wear full protective clothing. Avoid direct contact of this product with water as this can cause a violent exothermic reaction.

UNUSUAL FIRE AND EXPLOSION HAZARD

Direct contact with water can cause a violent exothermic reaction. See Reactivity section.

SENSITIVITY TO MECHANICAL IMPACT

Not sensitive

SENSITIVITY TO STATIC DISCHARGE

Not sensitive

V. SPECIAL PROTECTION

VENTILATION REQUIREMENTS

Special ventilation is not required under normal use. Use local exhaust ventilation where dust, mists, or spray may be generated.

NOTE: Where carbon monoxide or other reaction products may be generated, special ventilation may be required.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY:

Respiratory protection is not required under normal use. Use approved respirators where dust, mists or spray may be generated.

EYE:

Wear chemical safety goggles plus full-face shield to protect against splashing.

GLOVES:

Wear chemical resistant gloves such as natural or butyl rubber. Gloves may be decontaminated by washing with mild soap and water.



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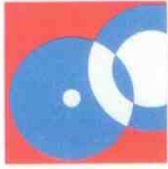
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(Continue: Specific Personal Protective Equipment)

OTHER CLOTHING AND EQUIPMENT:

Impervious protective clothing and chemically resistant safety shoes should be worn to minimize contact. Wash contaminated clothing with soap and water and dry before reuse. Emergency shower and eyewash facility should be in close proximity.

VI. PHYSICAL DATA

PHYSICAL STATE	:	LIQUID
CONCENTRATION, Weight %	:	49 Min.
BOILING POINT @ 760 mm/Hg C	:	144
FREEZING POINT C	:	12
VAPOR PRESSURE: mmHg @ 60 C	:	13
SPECIFIC GRAVITY @15.6 c/15.6 C	:	1.53
DENSITY, Kg/m3 @ 30C	:	12.76
SOLUBILITY IN H2O % BY WT.	:	Completely soluble
VAPOR DENSITY (Air=1)	:	Not applicable
APPEARANCE AND ODOR	:	Clear liquid with no distinct odor
ODOR THRESHOLD (PPM)	:	Not available
EVAPORATE RATE	:	Not known
COEFFICIENT WATER/OIL DISTRIBUTION	:	Not available
Ph	:	7.5 solution has Ph 14.0

VII. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY:

Under normal conditions, this product is stable.

INCOMPATIBILITY

See handling and storage section. Avoid contact with water. This product may be added slowly to water or acids with dilution and agitation to avoid a violent exothermic reaction. When handling this product, avoid contact with aluminum, tin, zinc, and alloys containing these metals. Do not mix with strong acids without dilution and agitation to prevent violent or explosive reaction. Avoid contact with leather, wool, acids, organic halogen compounds and organic nitro compounds.



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