



CCM CHEMICALS SDN BHD
PASIR GUDANG WORKS

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : CAUSTIC SODA LIQUID

Recommended use : Used as a raw material in soap and detergent manufacturing, process chemical in petrochemicals and Oleochemicals, pH correction in industrial waste water.

Address/Phone No. : CCM Chemicals Sdn Bhd
Pasir Gudang Works
PLO 411, Kawasan 4
Jalan Perak Satu
Kawasan Perindustrian Pasir Gudang
81700 Johor
Tel No. : **07-267133 / 07-2510562**
Fax No. : **07-2510560**

Emergency Phone No. : IN AN EMERGENCY DIAL 991
For specialist advice in an emergency, telephone 1-800-88-8565

Contact
Designation : Product Manager
Telephone No : 03-51018388

2. HAZARD IDENTIFICATION

Physical Hazard Classes

Corrosive to metal : Category 1

Health Hazard Classes

Skin corrosion / Irritation : Category 1A

Serious Eye Damage : Category 1

Environmental Hazards

Hazardous to aquatic environment-Acute Toxicity : Category 1

Label Elements

Pictogram and Symbol.



Signal word : **Danger**

Hazard Statement(s):

H290 May be corrosive to metals
 H314 Causes severe skin burns and eye damage
 H318 Causes serious eye damage
 H400 Very toxic to aquatic life

Precaution Statement(s):**Prevention**

P260 Do not breathe dust /fume /gas /mist/vapours/spray
 P264 Wash hands thoroughly after handling
 P280 Wear protective gloves/protective clothing/eye protection/face protection

Response

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P363 Wash contaminated clothing before re-use.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P310 Immediately call a POISON CENTER or doctor/physician.
 P321 Specific treatment (see First Aid Measures on Safety Data Sheet).
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

P405 Store locked up

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENT**PRODUCT DESCRIPTION**

Alternatives names : Liquid Caustic, Soda Lye, Sodium Hydrate

HAZARDOUS INGREDIENTS (S)	CAS No.:	% (w/w)	Symbol	H Code
Water	7732-18-5	42.5-50	-	-
Sodium Hydroxide	001310-73-2	48.5-50	C	H290,H314, H318,H400

4. FIRST AID MEASURES

Inhalation : Remove patient from exposure to fresh air, keep warm and at rest . Administer oxygen if necessary. Do not use mouth to mouth method if victim inhaled the substance. Call a physician/bring to nearby hospital.

Skin Contact : Remove contaminated clothing .Drench with large quantities of water and continue to wash the affected area for at least 15minutes.Wash clothing /contaminated shoes thoroughly before reuse or destroy if necessary.

Eye Contact : Immediately irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Continue irrigation until medical attention can be obtained.

Ingestion : Do not induce vomiting. Provided the patient is conscious, wash out mouth with water and give 200 - 300ml (half a pint) of water to drink. Never give anything by mouth to an unconscious person.

Further Medical Treatment

Symptomatic treatment and supportive therapy as indicated. Symptoms may be delayed. Keep victim under observation

5. FIRE FIGHTING MEASURES

Non-combustible. Contact with some metals can produce flammable hydrogen gas. Contact with some organic chemicals can produce violent or explosive reactions. If electric are welding or cutting, particular attention must be paid to the way the circuit is completed to eliminate the possibility of electrolysis of liquor producing hydrogen.

Suitable Ex Media

Water fog, Dry chemical powder, CO2, Normal foam (if necessary). Use extinguishing agent suitable for type of surrounding fire.

Unsuitable ex media

Do not use a solid water stream as it may scatter and spread fire. Do not use halogenated extinguishing agents.

Special protective equipment and precautions for firefighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. No skin surface should be exposed.

Fire-fighting equipment/instructions :

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions/Protective equipment

Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work upwind or increase ventilation. Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Ensure suitable personal protection during removal of spillages.

Small spillages : Drench spillages with water and wash to drain.

Large spillages : Contain spillages with sand, earth or any suitable adsorbent material. Remove and dispose of residues. Wash the spillage area with water. Water washing to drain of large amounts of caustic soda should only be carried out with the prior consent of the Department of Environment or other appropriate regulatory body. Spillages or uncontrolled discharges into watercourses, drains or sewers must be IMMEDIATELY alerted to the Department of Environment or other appropriate regulatory body.

7. HANDLING AND STORAGE

7.1 HANDLING

This material is regulated under Poison Act & Regulation 1952 and must be stored, maintained and used in accordance with the regulation.

Precautions for safe handling:

Avoid contact with skin and eyes. Avoid inhalation of high concentrations of mists.

Conditions for safe storage, including any incompatibilities:

Store in cool place and out of direct sunlight. Store away from incompatible materials described in Section 10. Do not store in aluminium or galvanised containers nor use die-cast zinc or aluminium bungs; plastic bungs should be used.. Care should be taken when diluting solutions. Atmospheric levels should be controlled in compliance with the occupational exposure limit.

7.2 STORAGE

For small quantities : Keep container tightly closed.

For large quantities : Can be stored at normal or slightly elevated temperatures in mild steel tanks. Where temperature is above 40 Deg C for liquor containing 30% or more of caustic or above 60 Deg C for lower concentrations tanks must be stress relieved.

Following prolonged storage in metal tanks, a black sludge will collect at the bottom of the tank. The sludge will contain iron, sodium carbonate.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Occupational Exposure Limits

HAZARDOUS INGREDIENTS (S)	TLV – C ppm mg/m3
Sodium Hydroxide	- 2

Engineering Controls

Provide local exhaust ventilation where mist is generated. Ensure compliance with applicable exposure limits.

PPE

Eye and Face

Wear suitable fitting goggles or full face shield

Skin/Protective Clothing

Wear suitable protective clothing and gloves. PVC is recommended..

Respiratory

Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely.

Thermal Hazards

Wear appropriate thermal protective clothing, when necessary

9. PHYSICAL AND CHEMICALS PROPERTIES

Odor	Odorless
Odor threshold	Not Applicable
pH(1% soln/water)	13.5 [Basic]
Flash Point	Non-combustible
Evaporation Rate	Information not available
Boiling Point	140°C (284°F)
Explosive Limits	Not Applicable
Melting Point	12°C (53.6°F)
Relative density	1.5-1.6@20°C (68°F)
Vapour Density	Not Applicable
Partition Coefficient:n-octanol/water	Not Applicable
Auto Ignition and decomposition temperature	Not Applicable
Flammability	Not Flammable
Solubility (Water)	Soluble
Solubility (Other)	Ethanol

10. STABILITY AND REACTIVITY

Chemical Stability	:	Stable under recommended storage condition. Refer Section 7.
Possibility of hazardous reactions	:	Hazardous polymerization does not occur.
Conditions to avoid	:	Can react violently if in contact with acids and chlorinated hydrocarbons.
Incompatible Materials	:	Highly reactive with aluminum, zinc, lead, tin and alloys of these metals producing flammable hydrogen gas. Exothermic reaction with water. Can react with sugar residues to form carbon monoxide.
Hazardous Decomposition Products	:	None

11. TOXICOLOGICAL INFORMATION

Inhalation	:	Mist and severely irritant to the respiratory tract. Effect may vary from irritation of the nasal mucous membrane to severe lung irritation.
Skin Contact	:	May cause severe burns with permanent skin damage which are slow to heal Repeated or prolonged contact to dilute solutions may cause dermatitis.
Eye Contact	:	Extremely severe irritant/corrosive. May cause severe damage with formation of corneal ulcers and permanent impairment of vision.
Ingestion	:	Will immediately cause corrosion of and damage to the gastrointestinal .
Long Term Exposure	:	The severity of acute effects is such that significant

repeated or prolonged exposure is unlikely.

Respiratory or skin sensitization: Not expected to cause respiratory reactions or sensitive skin.

Germ cell mutagenicity : No data available

Carcinogenicity : No data available

Reproductive Toxicity : No data available

Specific Target Organ Toxicity (STOT) -single exposure: No data available

STOT Repeated Exposure : No data available

Symptoms related to the physical, chemical and toxicological characteristics:

Burning pain and severe corrosive skin damage. Permanent eye damage including blindness can occur.

Delayed and immediate effects and also chronic effects from short and long term exposure:

Repeated exposure to low levels can result in tooth erosion and ulceration of the nasal septum and gums.

12. ECOLOGICAL INFORMATION

Environmental Fate and Distribution

Liquid with low volatility. The substance does not bio accumulate.

Persistence and Degradation

Sodium hydroxide degrades readily by reaction with the natural carbon dioxide in the air.

Toxicity

Concentrations greater than 10ppm, especially in fresh water, or a pH value equal to or greater than 10.5 may be fatal to fish and other aquatic organisms. Can cause damage to aquatic plants. Can cause damage to vegetation.

Effect of Effluent Treatment

Concentrations sufficient to render effluent alkaline may cause damage to effluent treatment organisms; aerobic treatment process at a concentration of 0.05 mg/l.

Mobility

Accidental spillage may lead to penetration in the soil and groundwater. However, there is no evidence that this would cause adverse ecological effects.

13. DISPOSAL CONSIDERATIONS

Description of waste residues

Waste residue can be neutralized by using acidic reagent or recovery for reuse.

Information on safe handling of waste residue

Wear suitable protection clothing, gloves or full face shield and gloves to handle the waste residues.

Methods of disposal

Waste residues disposal should be in accordance with local, state or national legislation.

14. TRANSPORT INFORMATION

Proper shipping name : Sodium Hydroxide solution
Transport Hazard Class : 8
U.N Number : 1824
Packing Group : II
Marine Pollutant : Yes
Special precaution in transporting substance : None

AIR

ICAO/IATA Class
- primary : 8
UN Packing Group Air : II

SEA

IMDG Class
- primary : 8
UN Packing Group Sea : II

ROAD/RAIL

ADR/RID Class : 8
ADR/RID Item No. : 42 (b)
ADR SIN : 1824

SPECIAL PRECAUTIONS FOR USER

Before transportation, make sure that the containers are tightly sealed and that there are no liquid or gas leaks. When transporting containers, be sure that they are tightly fastened. An appropriate buffer material should be placed between them to prevent them from bumping each other and being damaged during transport.

15. REGULATORY INFORMATION

Malaysia Regulations:-

1. OSHA (CLASS 2013) Regulations
2. OSHA (Use and Standard Exposure of Chemicals Hazardous to Health) Regulations 2000.
3. Poison Act 1952
4. Poison Regulations 1952
5. Environmental Quality Act 1974

16. OTHER INFORMATION

Information furnishes in this data sheet is accurate to the best of our knowledge, information at the time of printing. Information serve as guidance for the safe handling, usage, processing, storage, transportation, disposal and discharge and should not be assumed as guarantee or quality specification. Information are relevant to the mentioned substance and is not accurate if this substance is mix with other substances or into process unless stated above.

SDS Recent Revision Date : 1st July 2018
SDS Recent Revision : 6
This data sheet was prepared in accordance with OSHA (CLASS 2013) Regulations
EEC No. : 215-185-5

Chemical Emergency Telephone Number : 1-800-88-8565

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