



CCM CHEMICALS SDN BHD
PASIR GUDANG WORKS

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : **SODIUM HYPOCHLORITE LIQUOR**

Recommended Use : Used as a base chemical in bleaching products, disinfectant for swimming pools in theme parks.

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. : **07-2671333 / 07-2510562**
Fax No. : **07-2510560**

Emergency Phone No. : IN AN EMERGENCY DIAL 999,
For specialist advice in an emergency, telephone 1-800-88-8565

2. HAZARD IDENTIFICATION

Physical Hazard Classes

Corrosive to metal : Category 1

Health Hazard Classes

Skin corrosion / Irritation : Category 1

Serious Eye Damage : Category 1

Acute Toxicity : Category 3

Environmental Hazards

Acute Aquatic Toxicity : Category 1

Label Elements

Pictogram and Symbol.



Signal word : **Danger**

Hazard Statement

H318 : Causes serious eye damage

H301 : Toxic if swallowed

H311 : Toxic in contact with skin

H331 : Toxic if inhaled
H314 : Causes severe skin burns and eye damage

Precaution Statement

Prevention.

P262 : Do not get in eyes, on skin or on clothing.
P264 : Wash thoroughly after handling.
P270 : Do not eat, drink or smoke when using this product.
P280 : Wear protective gloves/protective clothing/eye protection/face protection.

Response.

P301+P310 : IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P321 : Specific treatment :- Refer item 4 (First Aid Measures)
P322 : Specific treatment:- :- Refer item 4 (First Aid Measures)
P330 : Rinse mouth
P302+P352 : IF ON SKIN: Wash with plenty of soap and water.
P312 : Call a POISON CENTER
P361 : Remove / Take off immediately all contaminated clothing.
P363 : Wash contaminated clothing before reuse.

Storage:

P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P406 Store in corrosive resistant container with a resistant inner liner.

Disposal:

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

3. COMPOSITION/INFORMATION ON INGREDIENT

PRODUCT DESCRIPTION

Concentrated sodium hypochlorite liquor, containing less than 16% nominal available chlorine, with a slight excess of free sodium hydroxide.

Alternative names : Hypo Bleach, Concentrated Sodium Hypochlorite liquor

HAZARDOUS INGREDIENTS (S)	CAS No.:	% (w/w)	Symbol	H CODES
Sodium Hypochlorite	007681-52-9	10% Min	C	H318,H301,H311,H331,H314
Sodium Hydroxide	001310-73-2	0.05 Max	C	H314,H318,H400,H290
Water	7732-18-5	89.5 Max	-	-

4. FIRST AID MEASURES

SPEED IS ESSENTIAL

Inhalation	:	Remove patient from exposure to fresh air, keep warm and at rest . Administer oxygen if necessary. Obtain medical attention.
Skin Contact	:	Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water. If symptoms develop, obtain medical attention.
Eye Contact	:	Immediately irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention.
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. Obtain medical attention.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED.

Symptoms. Inhalation may provoke the following symptoms:

Cough.

Headache.

Lung oedema.

Effects: Risk of serious damage to the lungs (by aspiration).

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treatment: Treat symptomatically. Later control for lung pneumonia and lung oedema. Gastric lavage is not recommended.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards arising from the substance or mixture:

Non-combustible material.

Special Protective equipment and precautions for fire fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, Protective equipment and emergency procedures

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.

Environmental precautions:

Do not flush into surface water or sanitary sewer system.

Avoid subsoil penetration.

If the product contaminates rivers and lakes or drains – inform respective authorities.

If material reaches soil inform authorities responsible for such cases.

Methods and materials for containment and cleaning up.

Ensure suitable personal protection during removal of spillages.

Small spillages : Wash the spillage area with water.

Large spillages : Contain spillages with sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Wash the spillage area with water. 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 PRECAUTIONS FOR SAFE HANDLING

Precautions for safe handling

Avoid contact with skin and eyes. Do not breathe mist. Avoid contact with other cleaning agents. Provide adequate ventilation if fumes or vapours are likely to be evolved.

Use respirator with appropriate filter if vapours are released.

Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

Hygiene measures :

Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing thoroughly

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Keep container tightly closed. Store in a cool and well-ventilated place. Store in a corrosive resistant container.

Consult container manufacturer for additional guidance. Keep away from heat and direct sunlight. Keep away from acids, ammonia solutions, amines and methanol.

Suitable Container Material

For small quantities : vented containers made from glass or PVC are suitable.

For large quantities : glass reinforced plastic tanks with a PVC lining or high density polyethylene tanks are suitable. Storage tanks should be completely enclosed except for vents and overflows. Provision should be made to wash tanks clear of sludge, which can build up due to salting out of solids during natural decomposition.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Occupational Exposure Limits

HAZARDOUS INGREDIENTS (S)	TLV 8hr TWA ppm mg/m3	TLV – STEL ppm mg/m3
Sodium Hypochlorite	Not listed (UK HSE EH40). In case of chlorine emission the occupational exposure limit for chlorine should be observed.	
Chlorine	0.5 1.5	1 2.9

Engineering Controls

Ensure ventilation is adequate to maintain air concentrations below Exposure Limits.

If inhalation risk exists then use with local exhaust ventilation or while wearing a suitable respirator.

Keep containers closed when not in use.

PERSONAL PROTECTIVE EQUIPMENT

Eye and Face

Wear suitable eye /face protection.

Skin/Protective Clothing

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

Respiratory

When required to spray sodium hypochlorite solutions or to work in mists adequate respiratory protection should be provided.

Thermal Hazards

Wear appropriate thermal protective clothing, when necessary

9. PHYSICAL AND CHEMICALS PROPERTIES

Appearance	: Greenish yellow liquid
Odour	: Faintly chlorinous
pH	: 12-13
Freezing Point (Deg C)	: -17
Boiling Point	: 110°C
Flash point	: No data available
Evaporation rate (BuAc=1)	: No data available
Flammability (solid, gas)	: No data available
Upper/lower flammability or explosive limits	: No data available
Vapour pressure (mm Hg)	: No data available
Vapour density (Air=1)	: No data available
Relative density	: 10% - 1.200
Solubility (Water)	: Miscible
Partition coefficient:n-octanol/water	: No data available
Auto:ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available

Data applies to a solution of 10% (nominal) available chlorine.

10. STABILITY AND REACTIVITY

Reactivity	: Contact with acids liberates toxic gas.
Stability	: Stable at normal condition and storage
Possibility of hazardous reactions	: Hazardous polymerisation will not occur. Reacts exothermically with acids . Reacts with ammonia, amines and ammonium salts to product chloramines.Decomposes on heating to produce chlorine gas.
Conditions to avoid	: Reacts with ammonia solutions and amines to form explosive compounds. Can react violently if in contact with methanol
Incompatible Materials	: Decomposition with evolution of oxygen is accelerated by light And heat and also by contact with many metals, particularly copper, nickel, iron and 'monel'. Thermal decomposition will evolve toxic vapours. Oxidising agent; may assist combustion.
Hazardous Decomposition Products (s)	: Chlorine

11. TOXICOLOGICAL INFORMATION

Serious eye damage/Irritation	:	Risks of serious damage to eyes. Extremely severe irritant/corrosive causing severe initial pain. May cause permanent damage if eye is not immediately irrigated.
Skin Corrosion/Irritation	:	Causes burns. Repeated and/or prolonged contact to dilute solutions may cause dermatitis. May cause skin sensitization in some cases.
Germ cell mutagenicity	:	No data available
Carcinogenicity	:	No data available
Reproductive toxicity	:	No information is available
Specific Target Organ Toxicity (STOT)-single exposure: May cause respiratory irritation		
STOT-repeated exposure	:	No data available
Aspiration hazard	:	No data available
Inhalation	:	Mist and vapour are corrosive to the respiratory tract and may cause bronchial irritation. Gas produced under fire or acidic conditions is toxic by inhalation.
Ingestion	:	Low oral toxicity. Will cause corrosion of and damage to the Gastrointestinal tract.

11.2 Symptoms related to the physical, chemical and toxicological characteristics

Contact with this material will cause burns to the skin, eyes and mucous membranes. Permanent eye damage including blindness could result

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

Long Term Exposure	:	Acute effects predominate.
Chronic effects	:	Prolonged or repeated overexposure causes lung damage

12. ECOLOGICAL INFORMATION

Toxicity

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects

96hr LC₅₀ Fish : (32ug/L)

Persistence and Degradation

This material is believed not to persist in the environment.
The product decomposes quickly in soil or water.

Environmental Fate and Distribution

High tonnage material used in open systems.
The product is soluble in water.

Effect of Effluent Treatment

The product is substantially removed in biological processes. There is evidence of inhibition to the aerobic treatment process at a concentration (mg/l) of 0.05

Mobility

Water/Soil

Considerable solubility and mobility

Soil/Sediments, log KOC:1.12

Highly mobile in soils

Air

Henry's Law constant (H), 0.076 Pa.m³/mol, 20°C non significant volatility

13. DISPOSAL CONSIDERATIONS

Description of waste residues

Sodium Hypochlorite spills can be dealt with by neutralization, using Sodium Hydroxide or Sodium Sulphite.

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

ROAD/RAIL

UN No.	:	1791
Proper shipping name	:	Sodium Hypochlorite Solution
ADR/RID Class	:	8
ADR/RID Item No.	:	61 (c)
ADR SIN	:	1791

SEA (IMDG)

UN No.	:	1791
Proper shipping name	:	Sodium Hypochlorite Solution
IMDG Class	:	

- primary : 8
Packing Group : III
Marine Pollutant : Yes
Special Precaution in transporting substance : None

AIR

UN No. : 1791
Proper shipping name : Sodium Hypochlorite Solution
ICAO/IATA Class
- primary : 8
UN Packing Group Air : III

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. Peraturan-Peraturan Keselamatan dan Kesihatan Pekerjaan (CLASS) 2013
2. OSHA (Use and Standard Exposure of Chemicals Hazardous to Health) Regulations 2000.

EEC Classification : CORROSIVE
Hazard Symbol : C

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.

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SDS Recent Revision : 5

This data sheet was prepared in accordance with OSH CLASS Regulations 2013

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

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