



Industrial Cleaners

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION

Revision Date : December 2006

Product Name : SODIUM HYPOCHLORITE SOLUTION

Other Names : LIQUID BLEACH SODIUM OXYCHLORIDE

Uses : Bleaching paper pulp, textiles etc., intermediate, organic chemicals, water purification, medicine, fungicides, swimming pool disinfectant, laundering, reagent, germicide.

Organisation	Location	Telephone	Ask For
INDUSTRIAL CLEANSERS PTY LTD	Unit 2A 424 Bilsen Rd Geebung Qld 4034	(07) 3265 6311	
	EMERGENCY INFORMATION	0417 720 832	Technical Officer
Poisons Information Centre	Westmead NSW Australia	131126	
Chemcall	Australia	1800-251525	
	New Zealand	1800-127406	
National Poisons Centre	New Zealand	0800-243622	
		0800-764766	

2. HAZARD IDENTIFICATION

Hazardous according to criteria of NOHSC/ASCC

Dangerous According to the Australian Code for the Transport of Dangerous Goods

Classified as Dangerous Goods According to NZS 5433:1999

CORROSIVE

Risk Phrases

- R31 Contact with acids liberates toxic gas.
R34 Causes burns.

UNCONTROLLED DOCUMENT

R41 Risk of serious damage to eyes.

Safety Phrases

S1/2 Keep locked up and out of the reach of children.
S28 After contact with skin, wash immediately with plenty of soap-suds.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).
S50:SOHYCL Do not mix with acids.

ERMA New Zealand Approval Code : No Data

HSNO Hazard Classification : No Data

This Material Safety Data Sheet may not provide exhaustive guidance for all HSNO Controls assigned to this substance. The ERMA website <http://www.ermanz.govt.nz/> should be consulted for a full list of triggered controls and cited regulations

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportions (%)
SODIUM HYPOCHLORITE	[7681-52-9]	10 - 30
WATER	[7732-18-5]	> 60

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed

Immediately rinse mouth with water. Give water to drink. DO NOT induce vomiting. Seek immediate medical assistance.

Eye

Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical centre.

Skin

Immediately wash contaminated skin with plenty of water. Remove contaminated clothing and wash before re-use. If swelling, redness, blistering or irritation occurs seek medical advice. For skin burns immediately flood burnt area with plenty of water and cover with a clean, dry dressing. Seek immediate medical advice.

Inhaled

Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Advice to Doctor

Treat symptomatically. Do not use acid antidotes in the treatment of sodium hypochlorite poisoning. Sodium thiosulphate reduces hypochlorite to non-toxic products but may produce hydrogen sulphide in contact with acid. Can cause corneal burns.

Additional Information

Aggravated medical conditions caused by exposure

No effects have been reported following long-term exposure to sodium hypochlorite.

5. FIRE FIGHTING MEASURES

Extinguishing Media

Fire-fighters should wear full protective clothing including self-contained breathing apparatus. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. Use water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder). Fire fighters should wear self-contained breathing apparatus if risk of exposure to products of decomposition.

Hazards from Combustion Products

Not combustible. Can decompose upon heating liberating toxic fumes including those of chlorine.

Special protective precautions and equipment for fire fighters

No Data Available

Flammability Conditions

Non-combustible material.

Additional Information

Hazchem Code : 2X

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures

Wear protective equipment to prevent skin and eye contamination. Increase ventilation. Clear area of all unprotected personnel.

Methods and materials for containment and clean up

Small spills - wash to drain with excess water. Large spills - contain using sand or soil - prevent runoff into drains and waterways. If authorised by appropriate authority, allow controlled access to drain accompanied by suitable neutralising agents such as sodium

metabisulphite or sodium thiosulphate and a large excess of water. If contamination of sewers or waterways has occurred advise local emergency services.

7. HANDLING AND STORAGE

Precautions for safe handling

Ensure an eye bath and safety shower are available and ready for use.

Conditions for safe storage, including any incompatibles

Store in a cool, well ventilated place out of direct sunlight. Store away from acids, peroxides, metal salts, reducing agents, combustible materials and foodstuffs. Keep containers closed at all times - check regularly for leaks. Containers must be carefully vented to release any pressure build-up. Transport and store upright with vent at top. This material is a scheduled poison S5 and must be stored, maintained and used in accordance with the relevant regulations. Avoid contact with most metals. Will react with peroxides, metal salts and reducing agents.

Container Type

Drums with vented bungs.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards

An exposure standard has not been established for this product by Worksafe Australia, however an exposure standard does exist for decomposition product : Chloride : TWA 1ppm (3 mg/m³) STEL peak limitation Peak Limitation : a ceiling concentration which should not be exceeded over a measurement period which should be as short as possible but not exceeding 15 minutes.

Biological Limit Values

No Data Available

Engineering Controls

Ensure ventilation is adequate and that air concentrations of chlorine (decomposition product) is controlled below quoted exposure standards. Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

Personal Protection

Avoid skin and eye contact and inhalation of vapours/mists. Wear overalls, face shield, elbow-length impervious gloves, splash apron and rubber boots. Available information suggests that gloves made from natural rubber, neoprene, nitrile rubber or polyethylene should be suitable. However, due to variations in glove construction and local conditions, a final assessment should be made by the user. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Pale yellow-green liquid, may have a slight odour of chlorine.
Formula	ClNaO
Odour	No Data Available
Vapour Pressure	Not Applicable
Vapour Density	No data
Boiling Point	100 deg C
Melting Point	N/A deg C
Solubility in water	Misc
Specific Gravity	1.20 (Water = 1)
Flash Point	Not Applicable
pH	12.5 ()
Flammability Limits (as percentage volume in air)	
Lower Explosion Limit	Not Applicable
Upper Explosion Limit	Not Applicable
Ignition Temperature	No Data
Specific Heat Value	No Data
Particle Size	No Data
Volatile Organic Compounds (VOC) content	No Data
Evaporation Rate	No Data
Viscosity	No Data
Percent Volatile	No Data
Octanol/Water partition coefficient	No Data
Saturated Vapour Concentration	No Data
Additional Characteristics	No Data
Flame Propagation/Burning Rate of Solid Materials	No Data
Properties of materials that may initiate or contribute to fire intensity	No Data
Potential for Dust Explosion	No Data
Reactions that Release Flammable Gases	No Data
Fast or Intensely Burning Characteristics	No Data
Non-flammables that could contribute unusual hazards to a fire	No Data
Release of invisible flammable vapours and gases	No Data
Decomposition Temperature	No Data

Additional Information

Solubility in water = miscible. Insoluble in organic solvents.

10. STABILITY AND REACTIVITY

Chemical Stability : No Data

Conditions to avoid : No Data

Incompatible Materials : No Data

Hazardous Decomposition Products : No Data

Hazardous Reactions : No Data

11. TOXICOLOGICAL INFORMATION

Toxicity Data

Oral LD50 = 8910 mg/kg (Rat) An alkaline poison and primary irritant to mucous membranes, throat and gastrointestinal tract and respiratory tract. Low systemic toxicity. Based on knowledge of the constituent sodium hypochlorite.

Health Effects - Acute

Swallowed

Swallowing can result in severe irritation and corrosion of the mucous membranes of the mouth, throat and gastrointestinal tract with pain, inflammation and vomiting. Systemic effects include fall of blood pressure, delirium and coma.

Eye

A severe eye irritant. Prolonged contamination of the eyes can result in permanent injury. Corrosive to eyes; contact can cause corneal burns.

Skin

Contact with skin will result in moderate irritation. Corrosive to skin - may cause skin burns.

Inhaled

Not normally an inhalation risk due to low vapour pressure at ambient temperatures. Inhalation of mists or aerosols can produce respiratory irritation followed by pulmonary oedema.

12. ECOLOGICAL INFORMATION

Ecotoxicity : No Data

Persistence and degradability : No Data

Mobility : No Data

Additional information

Environmental fate (exposure) : No Data

Bioaccumulative potential : No Data

13. DISPOSAL CONSIDERATIONS

Disposal

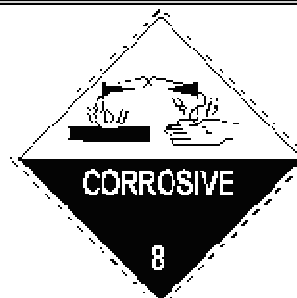
Refer to State Land Waste Management Authority. Decontamination and destruction of containers should be considered.

Special Precautions for land fill or incineration

No Data Available

14. TRANSPORT INFORMATION

UN No.	1791
Shipping Name	SODIUM HYPOCHLORITE SOLUTION
Dangerous Goods Class	8
Subsidiary Risk	None Allocated
Pack Group	III
Precautions for User	CORROSIVE
Hazchem Code	2X



15. REGULATORY INFORMATION

Poisons Schedule	N/A
EPG	37
AICS Name	No Data
NZ Toxic Substance	3
Additional information	No Data

16. OTHER INFORMATION

Additional information

Legend to abbreviations and acronyms:

<	less than
>	greater than
AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstracts Service (Registry Number)
CO2	Carbon Dioxide
COD	Chemical Oxygen Demand
ERMA	Environmental Risk Management Authority
HSNO	Hazardous Substance and New Organism
IDLH	Immediately Dangerous to Life and Health
LC50	LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.
LD50	LD stands for "Lethal Dose". LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals
Misc	miscible
N/A	Not Applicable

NIOSH	National Institute for Occupational Safety and Health
NOHSC	National Occupational Health and Safety Commission
OECD	Organization for Economic Co-operation and Development
PEL	Permissible Exposure Limit
RCP	Reciprocal Calculation Procedure
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average
UN	United Nations (number)
cm ²	square centimetres
deg C (°C)	degrees Celsius
g	gram
g/cm ³	grams per cubic centimetre
g/l	grams per litre
immiscible	liquids are insoluble in each other
kg	kilogram
kg/m ³	kilograms per cubic metre
ltr	Litre
m ³	cubic metre
mPa.s	milli Pascal per second
mbar	millibar
mg	milligram
mg/24H	milligrams per 24 hours
mg/kg	milligrams per kilogram
mg/m ³	milligrams per cubic metre
miscible	liquids form one homogeneous liquid phase regardless of the amount of either component present
mm	millimetre
ppb	parts per billion
ppm	parts per million
ppm/2h	parts per million per 2 hours
ppm/6h	parts per million per 6 hours
tne	tonne
ug/24H	micrograms per 24 hours
wt	weight

Literature references:

No Data

Sources for data:

No Data

This MSDS summarises INDUSTRIAL CLEANSERS Pty Ltd best knowledge of the health and safety hazard information of the selected substance and how to safely handle the selected substance in the workplace however INDUSTRIAL CLEANSERS Pty Ltd expressly disclaims that the MSDS is a representation or guarantee of the

chemical specifications for the substance. Each user should read the MSDS and consider the information in the context of how the selected substance will be handled and used in the workplace including its use in conjunction with other substances.

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