

MATERIAL SAFETY DATA SHEET

Section 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

COMPANY	Delshine Chemicals
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EMAIL	delshine-chemicals@bigpond.com
WEB SITE	www.delshinechemicals.com

BRAND NAME – Liquid Pool Chlorine
CODE NAME - Not Relevant
SHIPPING NAME (section 14) – Hypochlorite Solution
USE – Sanitising and Chlorinating Swimming Pools

RESTRICTIONS – Do not mix with Acids

Section 2 HAZARDS CLASSIFICATION / IDENTIFICATION

CLASSIFIED AS : HAZARDOUS / According to the criteria of NOHSC and Classified as Dangerous Goods According to the ADG Code

UN NUMBER : 1791

Appearance – Clear yellow liquid.

Emergency overview – Harmful if inhaled. Corrosive .Toxic.Oxidizer.Light sensitive. May cause methemoglobinemia. Causes eye and skin burns. Causes digestive and respiratory tract burns.

Target Organs - Blood

Potential Health Effects

Eyes – Causes eye burns. Causes redness and pain

Skin – Causes skin burns. Causes redness and pain

Ingestion - Causes gastrointestinal irritation with nausea, vomiting and diarrhoea. Causes gastrointestinal tract burns . Overexposure may cause methemoglobinemia.

CONTINUE HAZARDS CLASSIFICATION / IDENTIFICATION

Inhalation – Harmful if inhaled. May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung oedema. Causes chemical burns to the respiratory tract.

Chronic – May cause methemoglobinemia which is characterized by chocolate brown coloured blood, headache, weakness, dizziness, breath shortness, rapid heart rate, unconsciousness and possible death.

RISK PHRASES :

R31 – Contact with acid liberates toxic gas R34 – Causes Burns

R41- Risk of serious eye damage

SAFETY PHRASES:

S 1 / 2 Keep locked up and out of reach of children
S 3 / 7 / 9 Keep container tightly closed in a cool well ventilated place
S23 Do not breathe vapour
S 24 / 25 Avoid contact with skin and eyes.
S 28 After contact with skin wash with plenty of water and soapsuds
S36/37/39 Wear suitable protective clothing, gloves & eye/face protection
S 45 In case of accident or if you feel unwell seek medical advice
(Show label whenever possible)
S 50 Do not mix with other chemicals or materials other than water

Section 3 COMPOSITION / INFORMATION OF INGREDIENTS

CAS #	CHEMICAL NAME	%W/V
7681 – 52 – 9	Sodium Hypochlorite	12.5 as available chlorine
1310 – 73 – 2	Sodium Hydroxide	<1
7732 – 18 – 5	Water	> 60%

Section 4 FIRST AID MEASURES

Eyes – Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid.

Skin – Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before re use. Destroy contaminated shoes.

CONT : FIRST AID

Ingestion – Never give anything by mouth to an unconscious person. Do Not induce vomiting. Allow the victim to rinse out mouth and then drink 2 – 4 cups of water and seek medical advice.

Inhalation – Remove from exposure to fresh air immediately. If not breathing give artificial respiration. If breathing is difficult give oxygen. Get medical aid

Notes to Physician – For methemoglobinemia , administer oxygen alone or with Methylene blue depending on the methemolobinemia concentration in the blood. Can cause corneal burns.

First Aid Facilities: **Ensure an eye bath and safety shower are available and ready for use.**

Section 5

FIRE FIGHTING MEASURES

General Information – As in any fire wear a self contained breathing apparatus in pressure demand. AS1715/1716 approved or equivalent and full protection gear. Substance is noncombustible. Oxidizer. Greatly increases the burning rate of combustible materials. Containers may explode in the heat of a fire.

Extinguishing Media – Use extinguishing media most appropriate for the surrounding fire. Do Not get water inside containers, For small fires use dry chemical, carbon dioxide or water spray. For large fires use dry chemical, carbon dioxide, alcohol resistant foam or water spray. Cool containers with flooding quantities of water until well after the fire is out.

Autoignition Temperature – not available.

Flash point – Not available

NFPA Rating – Not Published

Explosion Limits, Lower : Not available - **upper** : Not available

Section 6

ACCIDENTAL RELEASE MEASURES

General Information – Use proper personal protective equipment as indicated in section 8.

Spills and Leaks : Absorb spill with inert material – (dry sand or earth) then place into a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways. Remove all sources of ignition. Use a spark - proof tool. Do not get water inside containers. Residues should be treated with dilute sodium thiosulphate solution and flushed to the drain with excess water.

Section 7 HANDLING AND STORAGE

Storage: Store in a cool, dry area away from oxidising agents. Do not store in direct sunlight. Store in a tightly closed container in a corrosive area.

Handling: Do not breathe vapour, mist or gas. Do not get in eyes, on skin or on clothing. Use only in a chemical fume hood. Discard contaminated shoes.

Class : 8

Section 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

NOHSC Exposure Limits Chlorine : TWA 1 ppm (3mg/m³ peak limitation)

Engineering Controls : Facilities storing or utilizing the material should be equipped with eyewash facility and safety shower.

Personal Protective Equipment

Eyes : Wear appropriate protective eyeglasses or chemical safety goggles.

Skin : Wear appropriate protective gloves to prevent skin exposure.

Clothing : Wear appropriate protective clothing to minimize contact with skin.

Respirators : Use AS 1715/1716 approved respirators if exposure limits to be exceeded.

Section 9 PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE : Clear yellow liquid

ODOUR: sweetish odour

PH : 13 approx

VAPOUR PRESSURE : 17.5mm hg @ 20°C

BOILING POINT : 100-110°C (decomposes)

VAPOUR DENSITY : not available

FREEZING POINT : - 16°C

SOLUBILITY : soluble in water

SPECIFIC GRAVITY/DENSITY: 1.18

ADDITIONAL INFORMATION

Evaporation Rate – Not available -

Viscosity : mPa.s 20°C: 2.6 at 1 atm

Molecular Formula : NaClO -

Molecular Weight : 74.44

Decomposition Temperature – Not available

Section 10 STABILITY & REACTIVITY

Chemical Stability : Stable under normal temperatures and pressures.

Conditions to Avoid : Light , combustible materials , strong acids , temperature above 40°C.

Incompatibilities with other Materials : Strong acids , amines , ammonia , ammonium salts , reducing agents , metals , formic acid , methanol and phenylacetonitrile.

Hazardous Decomposition Products : Hydrogen chloride , chlorine, irritating and toxic fumes and gases and sodium oxide.

Hazardous Polymerization : Will not occur

Section 11 TOXICOLOGICAL INFORMATION

Sodium Hypochlorite : CAS# 7681 – 52 – 9 : oral, mouse : LD50 = 5800mg/kg

Chlorine : CAS# 7782 – 50 – 5 : Inhalation , mouse : LC50 = 137ppm/1H : rat : LC50 = 293 ppm/1H

Carcinogenicity:

Sodium Hypochlorite : Not listed by ACGIH , IARC , NIOSH , NTP , or OSHA.

Chlorine : ACGIH : A4 – Not classifiable as a Human Carcinogen.

Epidemiology: No information available.

Teratogenicity : No information available.

Reproductive Effects : No information available.

Neurotoxicity : No information available.

Mutagenicity : mmo – sat 1 mg/plate dnr – esc 20ag.disc dnd – esc 420 amo1/L

EPA GENETOX PROGRAME 1988, Positive : E coli polA without S9
EPA GENETOX PROGRAME 1988, Positive / dose response : In vitro cytogenetics – nonhuman
EPA GENETOX PROGRAME 1988, Inconclusive : Histidine reversion – Ames test
EPA TSCA

Section 8 (b) CHEMICAL INVENTORY

Section 12 ECOLOGICAL INFORMATION

Ecotoxicity : LC50 (48 hr) rainbow trout : 0.07mg/1 [Nikunen , E. Ecotoxicol. Environ.Saf. 1985 , 9 , 84 - 91] LC 50 (96hr) fathead minnow : 5.9 mg/1

[Curtis , M.W. et al J Hydrol.1981, 51 , 359]

Environmental Fate : Not available.

Physical / Chemical : Not available.

Other : Not available

Section 13	DISPOSAL CONSIDERATIONS
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Disposal : Dispose of in a manner consistent with federal , state and local regulations.

Section 14	TRANSPORT INFORMATION
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UN NUMBER : 1791

UN PROPER SHIPPING NAME : Hypochlorite Solutions

CLASS: 8

PACKING GROUP: 111

HAZCHEM CODE: 2 X

Section 15	REGULATORY INFORMATION
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Australian Inventory of Chemical Substance : All ingredients on AICS.

NOHSC (Worksafe) Labelling : Hazard Symbols : C Corrosive , Risk Phrases : R31

Contact with acids liberates toxic gas, R34 Causes burns Safety Phrases : S1/2 Keep locked up and out of reach of children, S28 After contact with skin wash immediately with plenty of water, S45 In case of accident or if you feel unwell seek medical advice immediately
(show label where possible) S50 Do not mix with combustible material.

Additional Advisory Labelling : R8 Contact with combustible material may cause fire.

SUSDP Labelling : Poison Schedule : 6 **First Aid** : For advice contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once. If swallowed DO NOT induce vomiting . If in eyes hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor or for at least 15 minutes. If skin or hair contact occurs remove contaminated clothing and flush skin and hair with running water.

Safety Directions : Corrosive liquid. Product will irritate the eyes , nose , throat and skin. Avoid contact with eyes and skin. Wash hands after each use. Avoid breathing vapour or spray mist. Ensure adequate ventilation when using. Store under cover in a dry clean cool well ventilated place away from sunlight. Store and transport in an upright container. Do not mix other chemicals. In case of spillage flush with large quantities of water. Use clean containers for dispensing. Mix with water only. Do not mix different types of chlorinating chemicals. Avoid contact with clothing.

Section 16	OTHER INFORMATION
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NFPA has no listing for the chemical in Codes 49 or 325 . It is not classified as an oxidizer by the NFPA (up to 12.5 % available chlorine)

DATE OF LAST REVISION OF MATERIAL SAFETY DATA SHEET :

25th August 2010

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AUTHORISATION FOR ISSUE

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DATE

Les Buss

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