

Product Name **LIQUID CHLORINE**
1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name **CLEAN PLUS CHEMICALS PTY LTD**
Address 16 George Young Street AUBURN NSW 2144
Telephone 02 9738 7444
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Emergency 1800 201 700
Email info@cleanplus.com.au
Web Site www.cleanplus.com.au
Synonym(s) BLEACH 12.5% • PRODUCT CODE – 305
Use(s) UNIVERSAL DISINFECTANT BLEACH.
SDS Date 24 February 2010 v1
 3 July 2012 v2

2. HAZARDS IDENTIFICATION
CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC/ASCC CRITERIA
RISK PHRASES

R35 Causes severe burns
 R41 Risk of serious damage to eyes

SAFETY PHRASES

S1/2 Keep locked up and out of reach of children
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
 S28 After contact with skin, wash immediately with plenty of water
 S37/39 Wear suitable gloves and eye/face protection
 S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)
 S50 Do not mix with acids, metal salts, peroxides and reducing agents

CLASSIFIED AS A DANGEROUS GOODS BY THE CRITERIA OF THE ADG CODE

UN No.	1791	DG Class	8	Subsidiary Risk(s)	None Allocated
Packing Group	III	Hazchem Code	2R	EPG	8A1

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
SODIUM HYDROXIDE	Na-OH	1310-73-2	<1%
SODIUM HYPOCHLORITE	CL-O-Na	7681-52-9	10-30%

SODIUM CHLORIDE	NaCL	7647-14-5	10-30%
NON HAZARDOUS INGREDIENTS	Not Available	Not Available	Remainder

4. FIRST AID MEASURES

- Eye** If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poison Information Centre or a doctor, or for at least 15 minutes.
- Skin** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre or a doctor.
- Inhalation** If inhaled, remove from contaminated area. To protect rescuer, use an Air-line respirator where an inhalation risk exists. Apply artificial respiration if not breathing.
- Ingestion** For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

Advice to Doctor Treat symptomatically.

First Aid Facilities Eye wash facilities and safety shower should be available.

5. FIRE FIGHTING MEASURES

- Flammability** Non flammable. May evolve toxic gases(chlorine) if strongly heated to decomposition. May evolve carbon oxides and chlorinated compounds when heated to decomposition.
- Fire and Explosion** Non flammable. Evacuate area and contact emergency services. Toxic gases(chlorine) may be evolved. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus(SCBA). Use waterfog to cool intact containers and nearby storage areas.
- Extinguishing** Non flammable. Prevent contamination of drains or waterways.
- Hazchem Code** 2R

6. ACCIDENTAL RELEASE MEASURES

- Spillage** If spilt (bulk), contact emergency services if appropriate. Wear splash-proof goggles and PVC/rubber gloves, an Air-line respirator (where an inhalation risk exists). Absorb spill with sand or similar and place in sealed containers for disposal. Wash spill site down with water. For small amounts, dilute with water and flush to sewer. Caution: surfaces may be slippery.

7. STORAGE AND HANDLING

- Storage** Store in cool, dry, well ventilated area, removed from acids, combustible materials and foodstuffs. Ensure containers are adequately labeled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should have appropriate ventilation systems.
- Handling** Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure Stds	Sodium Hydroxide (Peak limitation) Sodium Hypochlorite(Peak limitation)	TWA:2.0mg/m ³ (Reference: ASCC(AUS)) TWA:3.0mg/m ³ (Reference:ASCC(AUS))
Biological Limits	No biological limit allocated.	
Engineering Controls	Ensure adequate natural ventilation. Maintain vapour levels below the recommended exposure standard.	
PPE	Wear splash-proof goggles and PVC or rubber gloves, rubber, face shield and coveralls. Where an inhalation risk exists, wear a type A (organic vapor) respirator.	

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	CLEAR YELLOW THICK LIQUID	Solubility (Water)	SOLUBLE
Odour	CHLORINE LIKE ODOUR	Specific Gravity	1.17 TO 1.19
Ph	12.5 – 13.5	Volatiles	NOT AVAILABLE
Vapour Pressure	NOT AVAILABLE	Flammability	NON FLAMMABLE
Vapour Density	NOT AVAILABLE	Flash Point	NOT RELEVANT
Boiling Point	100°C (Approximately)	Upper Explosion Limit	NOT RELEVANT
Melting Point	NOT AVAILABLE	Lower Explosion Limit	NOT RELEVANT
Evaporation Rate	NOT AVAILABLE		

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended conditions of storage.
Conditions to Avoid	Avoid heat, sparks, open flames and other ignition sources.
Material to Avoid	Incompatible with reducing agent(eg. Amines), organic materials, some metals (eg. Aluminium) and acids (eg. Nitric acid). Do not mix with other chemicals.
Decomposition	May evolve toxic gas(chlorine) if heated to decomposition.
Hazardous Reactions	Polymerization is not expected to occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard	Corrosive. Use safe work practices to avoid eye or skin contact , spray must generation or inhalation. Over exposure to Chlorine may result in lung tissue damage. Do not mix with other chemicals unless advised and specific instructions provided, as toxic and irritating gases may be evolved. Use safe practices to avoid over exposure. If diluted, the potential for corrosive effects will be reduced.
Eye	Corrosive – severe irritant. Contact may result in irritation, lacrimation, pain, redness and conjunctivitis. Prolonged contact may result in corneal burns and possible permanent damage.
Inhalation	Corrosive. Over exposure to mists or vapours (if sprayed) may result in mucous membrane irritation of the nose and throat with coughing. At high levels nausea, dizziness and headache. Low vapour pressure, considerably reduces the potential for an inhalation hazard.

Skin	Corrosive . Prolonged or repeated contact may result in drying the skin, rash and dermatitis.
Ingestion	Highly corrosive-toxic. Ingestion may result in burns to the mouth and throat, nausea, vomiting, abdominal pain and diarrhea. Ingestion of large quantities may result in ulceration, unconsciousness, convulsion, and death.
Toxicity Data	SODIUM HYDROXIDE (1310-73-2) LDLo (Ingestion):500mg/kg (rabbit) SODIUM HYPOCHLORITE(7681-52-9) LD50(Ingestion):5800mg/kg (mouse) TDLo(Ingestion):1mg/kg (woman) TDLo(Intravenous):45mg/kg(man)

12. ECOLOGICAL INFORMATION

Environment	WATER: If released to waterways, alkaline products may change the pH of the waterway. Fish will die if the pH reaches 10-11 (goldfish 10.9, bluegill 10.5) SOIL: May leach to groundwater with toxic effects on aquatic life as above. ATMOSPHERE: Not expected to reside in the atmosphere. Drops or particles released to atmosphere should be removed by gravity and/or be rained out.
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13. DISPOSAL CONSIDERATIONS

Waste Disposal	ATMOSPHERE: May release toxic chlorine gas. For small amounts absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer for additional information if larger amounts are involved. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.
Legislation	Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOODS BY THE CRITERIA OF THE ADG CODE

Shipping Name	SODIUM HYPOCHLORITE SOLUTION			Subsidiary Risk(s)	None Allocated
UN No.	1791	DG Class	8	EPG	8A1
Packing Group	III	Hazchem Code	2R		

15. REGULATORY INFORMATION

Poison Schedule	Classified as Schedule 6(S6) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
AICS	All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Additional Information

ABBREVIATIONS:

ADB - Air-Dry Basis.
BEI - Biological Exposure Indice(s)
CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.
CNS - Central Nervous System.
EINECS - European Inventory of Existing Commercial chemical Substances.
IARC - International Agency for Research on Cancer.
M - moles per litre, a unit of concentration.
mg/m3 - Milligrams per cubic metre.
NOS - Not Otherwise Specified.
NTP - National Toxicology Program.
OSHA - Occupational Safety and Health Administration.
pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm - Parts Per Million.
RTECS - Registry of Toxic Effects of Chemical Substances.
TWA/ES - Time Weighted Average or Exposure Standard.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Clean Plus Chemicals report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Clean Plus Chemicals report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Report Status

This Safety Data Sheet document has been compiled by Clean Plus Chemicals. Further clarification regarding any aspect of this product should contact Clean Plus Chemicals. While Clean Plus Chemicals has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Clean Plus Chemicals accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

End of Report

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