

SAFETY DATA SHEET

Product Name CHLORFOAM

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier name LIBERATO BULK CHEMICAL & REPACK SPECIALISTS PTY. LTD.
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Telephone 1300 377 696
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Web site <http://www.liberato.com.au>
Synonym(s) POTASSIUM HYDROXIDE SOLUTION
Use(s) FOAMING CLEANSER • SANITISER
SDS date 05 November 2013

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

RISK PHRASES

R31 Contact with acids liberates toxic gas.
R35 Causes severe burns.
R50 Very toxic to aquatic organisms.

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.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

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

UN number 1814 **DG class** 8
Packing group II **Subsidiary risk(s)** None Allocated
Hazchem code 2R

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Identification	Classification	Content
POTASSIUM HYDROXIDE	CAS: 1310-58-3 EC: 215-181-3	Xn;R22 C;R35	<10%
SODIUM HYPOCHLORITE	CAS: 7681-52-9 EC: 231-668-3	T;R31 C;R34 N;R50	<10%
NON HAZARDOUS INGREDIENTS	Not Available	Not Available	10 to 30%
WATER	CAS: 7732-18-5 EC: 231-791-2	Not Available	Remainder

4. FIRST AID MEASURES

Eye	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
Inhalation	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
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 a Poisons Information Centre or a doctor.
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) when heated to decomposition. Reacts with aluminium to liberate highly flammable hydrogen gas.
Fire and explosion	Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.
Extinguishing	Use an extinguishing agent suitable for the surrounding fire.
Hazchem code	2R 2 Water Fog (or fine water spray if fog unavailable) R Full protective equipment including Self Contained Breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear Personal Protective Equipment (PPE) as detailed in Section 8 of this SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.
Environmental precautions	Prevent product from entering drains and waterways.
Methods of cleaning up	Contain spillage, then cover/absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.
References	See Sections 8 and 13 for exposure controls and disposal.

7. STORAGE AND HANDLING

Storage	Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage, sealed when not in use, vented and stored upright. 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 standards**

Ingredient	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Chlorine (Peak Limitation)	SWA (AUS)	1	3	--	--
Potassium hydroxide	SWA (AUS)	--	2	--	--
SODIUM HYPOCHLORITE	SWA (AUS)	1	3	--	--

Biological limits No biological limit allocated.

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Engineering controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

PPE

- Eye / Face** Wear splash-proof goggles.
- Hands** Wear nitrile or PVC or rubber gloves.
- Body** Wear coveralls. When using large quantities or where heavy contamination is likely, wear rubber boots and a PVC apron.
- Respiratory** Where an inhalation risk exists, wear a Full-face Type B (Inorganic and Acid gas) respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	YELLOW LIQUID
Odour	SLIGHT ODOUR
Flammability	NON FLAMMABLE
Flash point	NOT RELEVANT
Boiling point	100°C
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
pH	13 to 13.5
Vapour density	NOT AVAILABLE
Specific gravity	1.15
Solubility (water)	SOLUBLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	NOT RELEVANT
Lower explosion limit	NOT RELEVANT
Partition coefficient	NOT AVAILABLE
Autoignition temperature	NOT AVAILABLE
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE
% Volatiles	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 agents (eg. sulphites), acids, organic materials, some metals. Do not mix with any other chemicals.
Hazardous Decomposition Products	May evolve oxides of chlorine when heated to decomposition.
Hazardous Reactions	Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Highly corrosive. This product has the potential to cause serious adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. Over exposure to chlorine vapour 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. Upon dilution, the adverse health effects associated with this product are reduced.
Eye	Highly corrosive. Contact may result in irritation, lacrimation, pain, redness and corneal burns with possible permanent damage.
Inhalation	Corrosive - toxic. Over exposure may result in mucous membrane irritation of the respiratory tract,

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coughing and possible burns. High level exposure may result in ulceration of the respiratory tract, breathing difficulties, chemical pneumonitis and pulmonary oedema.

Skin Corrosive. Contact may result in irritation, redness, pain, rash, dermatitis, ulceration and burns.

Ingestion Highly corrosive - toxic. Ingestion may result in burns to the mouth and throat, nausea, vomiting, ulceration of the gastrointestinal tract, oedema, rapid pulse, shock, unconsciousness, convulsions and death.

Toxicity data

POTASSIUM HYDROXIDE (1310-58-3)
LD50 (ingestion) 273 mg/kg (rat)

SODIUM HYPOCHLORITE (7681-52-9)
LD50 (ingestion) 5800 mg/kg (mouse)
TDLo (ingestion) 1 gm/kg (woman)
TDLo (intravenous) 45 mg/kg (man)

12. ECOLOGICAL INFORMATION

Toxicity Hypochlorites are extremely toxic to fish; Exposure to 0.5 % over 96 hours resulted in death of trout.

Persistence and degradability Hypochlorites are non-persistent in the environment and there is no accumulation potential as they gradually decompose into a salt and oxygen.

Bioaccumulative potential Hypochlorites are non-persistent in the environment and there is no accumulation potential as they gradually decompose into a salt and oxygen.

Mobility in soil May leach to groundwater with resultant toxicity to aquatic organisms.

Other adverse effects No information provided.

13. DISPOSAL CONSIDERATIONS

Waste disposal 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 GOOD BY THE CRITERIA OF THE ADG CODE

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
UN number	1814	1814	1814
Proper shipping name	POTASSIUM HYDROXIDE SOLUTION		
DG class/ Division	8	8	8
Subsidiary risk(s)	None Allocated	None Allocated	None Allocated
Packing group	II	II	II
GTEPG	8A1		
Environmental hazards	Not a Marine Pollutant		
Hazchem code	2R		
EMS	F-A, S-B		

15. REGULATORY INFORMATION

Poison schedule	Classified as a Schedule 6 (S6) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Inventory Listing(s)	AUSTRALIA: AICS (Australian Inventory of Chemical Substances) All components are listed on AICS, or are exempt.

16. OTHER INFORMATION

Additional information RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

EXPOSURE STANDARDS - TIME WEIGHTED AVERAGE (TWA) or WES (WORKPLACE EXPOSURE STANDARD) (NZ): Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this 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.

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 ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m ³	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (highly acidic) to 14 (highly alkaline).
ppm	Parts Per Million
REACH	Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

Revision history

Revision	Description
1.0	Initial SDS Creation

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Report status

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT 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, RMT 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.

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Revision: 1

SDS Date: 05 November 2013

End of SDS