



Section 1: Identification of the Material and Supplier

Product Name: Chloro-foam

Other Names: Chlorinating surfactant solution.

Proper shipping name (ADG Code): None assigned.

Recommended use: As a concentrated chlorinating detergent for use in the cleaning and sanitising of equipment, walls and tables in the food and related industries. Dilute and use as directed on the product label.

Supplier: **Hunters Products (TAS) Pty. Ltd.,**
A.C.N. 004 601 263

HEAD OFFICE

60 Gleadow Street,
INVERMAY TAS 7248
Tel: 03 6331 4755
Fax: 03 6334 1065

HOBART OFFICE

105 Albert Road,
MOONAH TAS 7009
Tel: 03 6228 7955
Fax: 03 6228 7988

BURNIE OFFICE

22 Pearl Street,
WIVENHOE TAS 7320
Tel: 03 6431 9627
Fax: 03 6432 2083

Emergency Phone Numbers:

Transport/Fire Emergency:	000	(Emergency services)
Medical Emergency:	131126	(Poisons Information Centre)

Section 2: Hazards Identification

Classified as hazardous according to criteria of Worksafe Australia.

Non-dangerous goods.

Risk Phrases: R: 36/38 Irritating to eyes and skin.
R: 31 Contact with acids liberates toxic gas.

Safety Phrases: S: 1/2 Keep locked up and out of the reach of children.
S: 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S: 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S: 50 Do not mix with other chemicals.

Section 3: Composition/Information on Ingredients

Ingredients:

Sodium hypochlorite	[7681-52-9]	< 10 %
Potassium hydroxide	[1310-58-3]	< 5 %
Surfactant		< 10 %
Other ingredients deemed not to be hazardous		< 10 %
Water	[7732-18-5]	to 100 %
Available chlorine	[7782-50-5]	up to 5 %

Section 4: First Aid Measures

For advice, contact a Poisons Information Centre (Phone 131126) or a doctor.

Swallowed: If swallowed, do NOT induce vomiting.

Skin: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

Eyes: 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.

Inhaled: Remove from exposure, rest and keep warm. Seek medical advice.

First Aid facilities:

Recommended: Eye wash. Hand wash basin.

Advice to Doctor:

Product is a dilute, alkaline, chlorine bleach containing a low proportion of a surfactant. Irritating to skin and eyes. If swallowed, vomiting should not have been induced because of risk of aspiration of froth into the lungs. Contact Poisons Information Centre.

Aggravated medical conditions:

Persons with pre-existing respiratory disease may be more at risk from this product.

Section 5: Fire Fighting Measures

HAZCHEM Code: None assigned.

Evacuate: No.

Extinguishant: Water.

Risk of violent reaction or explosion: No.

Products of combustion: Water vapour, chlorine, hydrogen chloride, oxides of sulphur, oxides of nitrogen.

Protective Equipment: Breathing apparatus and protective gloves for fire only.

Section 6: Accidental Release Measures

Emergency Procedures:

Contain.
Increase ventilation.

For large spills:

Contain spillages with sand or earth. Transfer both liquid and solids to suitable container(s). Treat residues as for small spills.

For small spills:

If local regulations permit, mop up with plenty of water and run to waste, diluting greatly with running water. Otherwise, absorb on inert absorbent and transfer to suitable closed container. Wash site of spillage thoroughly with water and detergent. Ventilate area to dispel any residual vapours.

Section 7: Handling and Storage

Precautions for safe handling:

Avoid contact with skin and eyes.
Avoid breathing concentrated vapours.
Keep away from acids.

Conditions for safe storage:

Store in a cool, well ventilated place, out of reach of children. Large quantities should be stored in a bunded flammables store. Store in original container. Keep container tightly closed and out of direct sunlight. Prevent vapours from collecting in enclosed or low lying spaces. Keep away from acids. Protect from physical damage. Clean up all spills and splashes promptly; avoid secondary accidents.

Incompatibles:

Acids, active metals (such as aluminium, tin, zinc), reducing agents, combustible materials.

Section 8: Exposure Controls/Personal Protection

National Exposure Standards:

ES-TWA:	Potassium hydroxide	2 mg/m ³
	Chlorine	1 ppm, 3 mg/m ³
ES-STEL:	None assigned.	
ES-PEAK:	Potassium hydroxide	2 mg/m ³
	Chlorine	1 ppm, 3 mg/m ³

Notations: None.

[Peak] indicates a ceiling concentration which should not be exceeded, even momentarily.

Biological Limit Values: No data found.

Engineering Controls:

Avoid using aluminium, tin, zinc or galvanised iron as materials of construction.

Ensure adequate ventilation (same as outdoors) when using.

If handling industrial quantities, or if vapour risk exists, consider local mechanical exhaust/extraction to keep airborne contamination as low as possible and at least below the TLV.

Personal Protective Equipment:

Avoid contact with skin. Prevent contact with eyes. Avoid breathing concentrated vapours. Personal protection to be selected from those recommended below, as appropriate to mode of use, quantity handled and degree of hazard:-

Normal Use:

Eye/face protection
Gloves, rubber or plastic.

Industrial Quantities:

Face shield or safety glasses
Gloves, rubber or plastic
Plastic apron, sleeves and boots
Impervious overalls.

Section 9: Physical and Chemical Properties

Appearance:	Clear, pale amber, mobile, frothing liquid.	
Odour:	Slight smell of chlorine bleach.	
	Odour threshold (chlorine): 0.3 ppm.	
pH (1 % solution):	12.7	Very alkaline.
Vapour Pressure:	No data.	
Vapour Density:	No data.	
Boiling Point:	From 100 °C	
Melting Point:	No data.	
Volatiles:	About 84 %	[as water]
Volatile Organic Compounds (VOC):	< 1 %	
Evaporation Rate:	No data.	
Solubilities:	Miscible with water in all proportions.	

Specific Gravity/Density: 1.09 g/mL @ 20 °C
Flash Point: None.
Flammable Limits: None.
Dust Explosion: Not applicable.
Auto-ignition Temperature: No data.

Other Information:

Highly alkaline solution. May react vigorously with acids, generating up to 5 % of chlorine, a toxic gas. Contact with active metals, such as aluminium, tin or zinc may generate hydrogen, a flammable gas. Mixture with combustible materials may cause fire. May react vigorously with reducing agents. May attack glass on prolonged contact. Slippery when spilled.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Incompatible materials, heat.

Incompatible Materials: Acids, reducing agents, active metals, combustible materials.

Hazardous Decomposition Products: Chlorine, hydrogen chloride, oxides of sulphur, oxides of nitrogen.

Hazardous Reactions: Contact with acids may liberate up to 5 % of chlorine gas.
Contact with active metals may generate hydrogen.
Contact with combustible materials may cause fire.

Section 11: Toxicological Information

Health Effects:

No data available for the mixture. Information presented relates to individual ingredients.

Acute:

Swallowed: Irritating to mouth, throat and gastrointestinal system. Likely to cause gastric upset, discomfort or pain, nausea, inflammation, vomiting and diarrhoea. May cause a burning sensation and tissue damage.
Large doses of sodium hypochlorite may cause lowered blood pressure, weakness and loss of consciousness.
A possible aspiration risk.

Skin: Irritating to skin. Will degrease the skin. Prolonged contact may cause skin burns.

Eyes: Irritating to eyes. May cause permanent tissue injury.

Inhaled: Vapours are irritating to the respiratory system. Over-exposure may cause coughing, shortness of breath, a burning sensation and possible swelling and obstruction of the airways.
Aspiration of froth into the lungs during swallowing or vomiting may cause bronchial irritation and pulmonary oedema (fluid build-up in the lungs). Onset of symptoms may be delayed for some hours.

Chronic: Repeated skin contact may lead to irritation, dermatitis effects and possible skin burns.

Chronic exposure to sodium hypochlorite may result in methaemoglobinemia, characterised by chocolate-brown coloured blood, headache, dizziness, weakness, shortness of breath, cyanosis, rapid heart rate, unconsciousness and possible death.

Hypochlorite salts have been classified by the IARC as Group 3; unclassifiable as to carcinogenicity to humans (inadequate evidence in experimental animals; no data available in humans). (1)

LD50:	Sodium hypochlorite	5,800 mg/kg oral, mouse.
	Surfactant	438 mg/kg oral, rat.
	Potassium hydroxide	273 mg/kg oral, rat.

Section 12: Ecological Information

Ecotoxicity:	Harmful to aquatic organisms.
Persistence and degradability:	No data.
Mobility:	Readily transported by running water.
Environmental Fate:	No data.
Bioaccumulative potential:	No data.
Other adverse environmental effects:	Contains a surfactant. Local concentrations may be harmful to aquatic organisms, including fish.

Section 13: Disposal Considerations

The generator of any wastes from this product is responsible for its proper classification, transport and disposal.

Consult appropriate local and State regulations.

Disposal methods and containers:

Avoid disposal to natural waters or the environment.
Do not use metal containers.

Special precautions for landfill or incineration:

Unsuitable for incineration.
May be unsuitable for some landfill sites.

Section 14: Transport Information

UN Number: None assigned.

UN Proper shipping name: None assigned.

Class and subsidiary risk: None assigned.

Packaging group: None assigned.

Special precautions for user: Keep away from acids.
Keep away from active metals.
Contain spillages.

HAZCHEM Code: None assigned.

Material for export: Not regulated.

Section 15: Regulatory Information

Poisons (SUSDP): Schedule 5
Potassium hydroxide < 5 % and pH > 11.5
Sodium hypochlorite with > 4 % available chlorine and with pH > 11.5

Dangerous Goods: No.

Carcinogen:	Australia	IARC	NTP	RTECS
	No.	Yes. (1)	No.	No.

Agricultural and Veterinary Chemicals Act: Not applicable.

Australian Inventory of Chemical Substances (AICS): Listed.

Other National/International Regulations: No data.

Section 16: Other information

Date of MSDS update: April 2007
Complete review and re-write of all sections.

Abbreviations:

NOHSC - National Occupational Health and Safety Commission.
ACGIH - American Conference of Governmental Industrial Hygienists.
MAK - Maximum workplace concentration - Germany,
(*maximale Arbeitsplatzkonzentration*)
IARC - International Agency for Research on Cancer (France).
NPT - National Toxicology Program (USA).
RTECS - Registry of Toxic Effects of Chemical Substances.

Literature references:

- (1) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. v.52, p.159, 1991.*

Other Available Sources of Data:

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [2011(2003)] - NOHSC.
Australian Dangerous Goods Code.
Standard for the Uniform Scheduling of Drugs and Poisons - AHMAC.
Exposure Standards for Atmospheric Contaminants in the Occupational Environment [1003]- NOHSC.
List of Designated Hazardous Substances [10005] - NOHSC.
Merck Index - Merck Inc.
Sax's Dangerous Properties of Industrial Materials - Lewis.
Handbook of Toxic and Hazardous Chemicals and Carcinogens - Sittig.
Handbook of Reactive Chemical Hazards - Bretherick.
Hawley's Condensed Chemical Dictionary - Wiley Interscience.
AUSREG's Chemical Data Package for PCs - AUSREG Consultancy.