Section 1: Identification of the Material and Supplier

Product Name: **Safety Bleach**

Other Names: Sodium perborate tetrahydrate

Proper shipping name (ADG Code): UN 1479 Oxidising solid, n.o.s. (sodium perborate tetrahydrate)

Recommended use: Raw material for industrial use.
Cleaning, washing agent and additive.

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

HEAD OFFICE	**HOBART OFFICE**	**BURNIE OFFICE**
60 Gleadow Street,	105 Albert Road,	22 Pearl Street,
INVERMAY TAS 7248	MOONAH TAS 7009	WIVENHOE TAS 7320
Tel: 03 6331 4755	Tel: 03 6228 7955	Tel: 03 6431 9627
Fax: 03 6334 1065	Fax: 03 6228 7988	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.

Dangerous goods.

Risk Phrases:

R: 8	Contact with combustible material may cause fire.
R: 22	Harmful if swallowed.
R: 36	Irritating to eyes.

Safety Phrases:

S: 17	Keep away from combustible materials.
S: 26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S: 36	Wear suitable protective clothing.

Section 3: Composition/Information on Ingredients

Ingredients:

Sodium perborate tetrahydrate	[10486-00-7]	98.6 %
Minor impurities	to	100.0 %

Section 4: First Aid Measures

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

Swallowed: Do not induce vomiting.

Skin: Remove contaminated clothing and wash skin thoroughly. Wash clothing thoroughly before re-use.

Eyes: Hold eyes open, flood with water for at least 15 minutes and seek medical advice.

Inhaled: Remove from exposure, rest and keep warm.

First Aid facilities:

Recommended: Eye wash. Hand wash basin. Emergency shower if handling industrial quantities.

Advice to Doctor:

Product is sodium perborate tetrahydrate. Oxidiser. Irritating to eyes and respiratory system. Moderately toxic if swallowed. Contact Poisons Information Centre.

Aggravated medical conditions:

Pre-existing skin disorders.

Section 5: Fire Fighting Measures

HAZCHEM Code: 1 Y

Evacuate: No.

Extinguishant: Water.

Risk of violent reaction or explosion: Yes. Contact with combustible materials may cause fire.

Products of combustion: Oxides of sodium, oxides of boron.

Protective Equipment: Breathing apparatus and protective gloves.

Section 6: Accidental Release Measures

Emergency Procedures:
Contain.
Prevent spillages from entering natural waters.
Shut off all sources of ignition.
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:
Absorb on inert absorbent (NOT sawdust or paper) 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 dust.
Keep away from combustible materials, acids, reducing agents.

Conditions for safe storage:
Store in a cool, dry, well ventilated place, out of reach of children. Large quantities should be stored in a dangerous goods store. Store in original container. Keep container tightly closed, dry, and out of direct sunlight. Keep away from acids, reducing agents, combustible or flammable materials. Protect from physical damage. Clean up all spills promptly; avoid secondary accidents.

Incompatibles:
Acids, combustible or flammable materials, reducing agents, moisture.

Section 8: Exposure Controls/Personal Protection

National Exposure Standards:

ES-TWA:	None assigned.
ES-STEL:	None assigned.
ES-PEAK:	None assigned.
Notations:	None.

Biological Limit Values: No data found.

Engineering Controls:

Do not use wood or paper products as materials of construction.
Segregate from combustible or flammable materials.
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.

Personal Protective Equipment:

Avoid contact with skin and eyes. Avoid breathing dust.
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:

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

CAUTION: *Cotton overalls impregnated with oxidising agents (such as sodium perborate) may be readily ignited and can burn fiercely.*

Section 9: Physical and Chemical Properties

Appearance:	White, free-flowing, crystalline powder.
Odour:	Odourless.
pH:	10.2 - 10.6 (1 % in water)
Vapour Pressure:	No data.
Vapour Density:	Not applicable.
Boiling Point:	Decomposes when heated.
Melting Point:	Decomposes above 60 °C
Volatiles:	None.
Volatile Organic Compounds (VOC):	None.
Evaporation Rate:	Not applicable.
Solubilities:	21.g g/L in water @ 18 °C 23 g/L in water @ 20 °C
Specific Gravity/Density:	No data.
Flash Point:	None.
Flammable Limits:	None.
Dust Explosion:	Will not occur.
Auto-ignition Temperature:	Decomposes above 60 °C

Other Information:

Oxidiser, contact with combustible materials may cause fire.
Releases hydrogen peroxide on contact with water or moisture.
Will decompose, with release of oxygen, on contact with warm or moist air. Harmful to aquatic organisms.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Incompatible materials, moisture, heat.

Incompatible Materials: Acids, reducing agents, combustible materials.

Hazardous Decomposition Products: Oxides of sodium, oxides of boron.

Hazardous Reactions: Contact with combustible materials may cause fire. Releases hydrogen peroxide or oxygen when wet, when heated or in contact with warm or moist air.

Section 11: Toxicological Information

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

Acute:

Swallowed: Harmful if swallowed. May be fatal. Likely to cause gastric irritation, nausea, vomiting and diarrhoea. Possible risk of convulsions, muscle weakness, circulatory collapse.

Skin: Irritating to skin. May be absorbed through broken skin.

Eyes: Moderately irritating to eyes. May cause redness, irritation and pain. May cause corneal damage.

Inhaled: Inhaled dust will irritate the respiratory system. May cause cough, shortness of breath. Exposure may lead to pulmonary oedema (fluid build-up in the lungs). Onset of symptoms may be delayed.

Chronic: Repeated skin exposure may lead to dermatitis.
Oral administration of sodium perborate tetrahydrate to experimental animals (after conception) has caused adverse reproductive effects, including fertility changes and birth defects. **(1)**

LD50:	Sodium perborate tetrahydrate	1,200 mg/kg oral, rat. 1,060 mg/kg oral, mouse.
LDLo:	Sodium perborate tetrahydrate	214 mg/kg oral, human. 250 mg/kg oral, child. 400 mg/kg oral, infant.

Section 12: Ecological Information

Ecotoxicity: Harmful to aquatic organisms.

Persistence and degradability: Rapidly hydrolysed to boron, peracetic acid and acetic acid in the aquatic environment.

Mobility: Readily transported by running water.

Environmental Fate: No data.

Bioaccumulative potential: Available data indicates a low potential for bioaccumulation.

Other adverse environmental effects: No data.

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.

Special precautions for landfill or incineration:
Unsuitable for incineration.
May be suitable for landfill after treatment.

Section 14: Transport Information

UN Number: UN 1479

UN Proper shipping name: Oxidising solid, n.o.s. (sodium perborate tetrahydrate)

Class and subsidiary risk: 5.1 Oxidiser.

Packaging group: II

Special precautions for user: Store and transport segregated from DG classes 1, 2.1, 2.3, 3, 4.1, 4.2, 4.3, 5.2, 7, 8, and fire risk substances of classes 6 and 9, and any other fire risk or combustible materials.

HAZCHEM Code: 1 Y

Material for export: Regulated.
Refer to **IMO/IMDG** and **IATA/ICAO**.

Section 15: Regulatory Information

Poisons (SUSDP): Not a scheduled poison.

Dangerous Goods: Yes. UN 1479 5.1/II 1 Y

Carcinogen:	**Australia**	**IARC**	**NTP**	**RTECS**
	No.	No.	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 preparation: February 2006

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) *Teratology, The International Journal of Abnormal Development. (Alan R. Liss Inc., 41 E. 11th Street, New York, NY 10003) v.53, p.26A, 1996.*

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.