Safety Data Sheet



BOAT KLEEN

1. PRODUCT & COMPANY IDENTIFICATION

Product Name	: BOAT KLEEN
Uses:	Replacement for hydrochloric acid.
	Calcium deposit removal for the marine
	industry, dairy industry, water treatment.
Supplier Detai	s: E.D. Oates Pty Ltd
	Trading As: RESEARCH PRODUCTS
Address: 13-2	21 Maygar Blvd, Broadmeadows, Vic, 3047
Phone: (03)	9355 6994 Fax: (03) 9359 9509
Website: www	w.oateslaboratories.com.au
Email: cus	tomerservice@oates.com.au

Emergency Contact: Phone 13 11 26 (Australia wide)

2. HAZARDS IDENTIFICATION

Classified as hazardous according to criteria of NOHSC/ASCC

Xi; Harmful, Irritant

Risk Phrases

R36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases

- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S28 After contact with skin wash with plenty of soap and water.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Identity: Chloride content	CAS No.	Percentage 10 – 15%
Organic salts Water	506-89-8 7732-18-5	< 50% Balance
Water	1102-10-5	Dalance

4. FIRST AID MEASURES

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For advice contact a doctor or Poisons Information Centre (phone 13 11 26).

Swallowed: Rinse mouth thoroughly with water immediately. If swallowed promote vomiting by usual means. Seem immediate medical assistance.

Eyes: Immediately irrigate with copious quantities of water for at least 15 minutes. Hold eyelids open. Seek immediate medical assistance.

Skin: Immediately wash contaminated skim with plenty of water and then wash with soap and water. Seek medical advice.

Inhalation: Remove victim from exposure to fresh air – avoid becoming a casualty. Seek medical advice. **Advice to doctor**: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Hazchem Code: None Allocated

Fire/Explosion Hazards:

Conditions to avoid: High temperature: Toxic fumes of hydrogen chloride may be released if involved in a fire. Fire fighters are to wear self contained breathing apparatus and full protective clothing due to chlorine gas risk.

Materials to avoid: Strong Alkalis

Hazardous Decomposition Products: May produce hydrogen chloride and/or corrosive gases.

Extinguishing Media: Fire fighters should wear full protective clothing including self contained breathing apparatus. In case of fire use water, foam, carbon dioxide, dry powder.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Use personal protective equipment.

Methods & Materials for Containment & Clean Up:

Clear area of all unprotected personnel. Wear protective equipment to prevent skin and eye contamination including breathing apparatus.

Contain, do not allow spill material to enter the environment. Contain using inert absorbent material, eg. Vermiculite. Place into suitable containers and hold for waste disposal. Wash down area with excess water once removed.

7. HANDLING & STORAGE

Handling:

Avoid contact with eyes, skin and clothing. Wash hands thoroughly after handling. Keep container tightly closed. Do not breathe vapours, mist or fumes.

Conditions for safe storage

Use only plastic (PE, PP, PVC) or fibreglass

containers/vessels. Other tanks should be lined with chloride resistant materials. Pumps should also be lined with chloride resistant materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit(s): (for atmospheric contaminants in the occupational environment) No value assigned for this product by the NOHSC (Workcover). However, the exposure standard for the acid constituent is:

	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Carbamidic acid	No data			

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6 Reservoir Avenue, Greenacre SYDNEY NSW 2190 Australia

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Exposure controls:

Eyes: The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate.

- Skin: Rubber or PVC gloves, overalls or PVC suit, safety or rubber boots.
- **Respiratory:** If mist is generated the use of chlorine vapour half face piece respirator is recommended.
- Engineering measures: Maintain concentration below recommended exposure limit. Use in a well-ventilated area. Avoid generating and inhaling mists and aerosols. Keep containers closed when not in use. If risk of overexposure exists, wear SAA approved respirator to comply with Australian Standards, ensuring correct fit to obtain adequate protection.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical state:	Liquid
Colour:	Clear to pale yellow solution
Odour:	Characteristic
pH (5% solution):	< 1
Shelf life:	360 days
Boiling point/range:	N/A
Freezing point/range:	-34 degrees Celsius
Flash point:	Not determined
Lower explosion limit:	N/A
Upper explosion limit:	N/A
Vapour pressure:	Not established
Relative vapour density:	Not established
Solubility in water (g/L):	Soluble
Viscosity:	16cps
Evaporation rate:	Not established
Percent volatility:	Not established
NOTE: The physical data pres	sented above are typical values
and should not be construed a	as a specification.

10. STABILITY & REACTIVITY

Hazardous Reactions: Product is stable under normal conditions of use, storage and temperature.Materials to avoid: No special precautions.Polymerization: Product will not undergo polymerization.

11. TOXICOLOGICAL INFORMATION

Toxicology:

Dermal Irritation / Corrosion Test:

A modified Draize method was used as described in OECD Guidelines for the Testing of Chemicals, Sec. 404, Paris 1981 (revised 1992). This study complies with the requirements of OECD principles of GLP, Annex 2, Paris 1981, revised as of July 1992.

- Organo Kleen received a Primary Irritation Score of 2 +- 0.9, and is classified as a "Mild Irritant".
- LD-50: 1121 mg/Kg (Rat, Oral)

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Mutagenicity: This product was found NOT to be mutagenic when tested by the AMES Assay, (OECD Guidelines for Testing of Chemicals, Sec.471).

Biodegradation Test:

- The COD is 3500 mg/L. This test method was Hach's Reactor Digestion Method for Waste water and Sea Water. The Hach Reactor Digestion Method is a semi micro-adaption of the Standard Methods. (For comparisons, organic acids, surfactants, and glycol ethers will typically have COD's in the range of 1,000,000 – 2,000,000 mg/L). The BOD is 500mg/L after 5 days and 600mg/L at 10 days. The test method used was part 507 Oxygen Demand (Biochemical) of the Standards Methods for Examination of Water and Waste water, 1985, 16th Ed.
- Health Effects: Symptoms that may arise if the product is mishandled are:

Health Effects – Acute

Swallowed: Ingestion may result in nausea.

Eye: May cause eye irritation.

Skin: May be irritating to skin.

Inhaled: Should not occur however if heated may release chlorine which may cause respiratory irritation.

Chronic Effects: Repeated or prolonged skin contact may lead to irritant contact dermatitis.

12. ECOLOGICAL INFORMATION

Ecotoxicity: No data available Persistence and degradability: No information available for this product. Mobility: No information available on this product. Additional information Environmental fate (exposure): Avoid contaminating waterways, drains and sewers. Bioaccumulative potential: No information available for this product.

13. DISPOSAL CONSIDERATIONS

Refer to State and Land Management Authority and relevant Environmental Protection Authority.

14. TRANSPORT INFORMATION

Classification for ROAD and RAIL transport: Not regulated (Not dangerous for transport) Classification for SEA transport (IMO-IMDG): Not regulated (Not dangerous for transport) Classification for AIR transport (IATA/ICAO): Not regulated (Not dangerous for transport) Not classified as dangerous according to the Australian Dangerous Goods Code (ADG Code)

U.N. Number:	N/A	Class:	N/A
Hazchem:	N/A	Packaging Group:	N/A

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15. REGULATORY INFORMATION

Label: Classification and labelling have been performed according to regulations.
Poison Schedule: Not scheduled
EPG: None allocated
Australia. Industrial Chemical (Notification and Assessment) Act (AUSTR). All ingredients in this preparation are listed in the Australian Inventory of Chemical Substances, AICS.

16. OTHER INFORMATION

SDS Version: 1.0 Date of Preparation: 01/03/12

Key to Abbreviations & Acronyms Used in MSDS:

<	Less Than
>	Greater Than
AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstracts Service (Registry Number)
LC50	LC stands for lethal Concentration. LC50 is the
	concentration of a material in air which causes
	death of 50% (one half) of a group of test
	animals.
LD50	LD stands for "Lethal Dose". LD50 is the amount
	of a material, given all at once, which causes the
	death of 50% (one half) of a group of test animals.
NOHSC	National Occupational Health and Safety
	Commission.
OECD	Organisation for Economic Co-operation and
	Development.
PEL	Permissible Exposure Limit.
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average
UN	United Nations (Number)
deg C ('C)	Degrees Celsius
g	Gram
g/cm3	Grams per cubic centimetre
g/l	Grams per litre
Immiscible	Liquids are insoluble in each other
kg	Kilogram
kg/m3	Kilograms per cubic metre
ltr	Litre
m3	Cubic metre
mg	Milligram
mg/24H	Milligrams per 24 hours
mg/kg	Milligrams per kilogram
mg/m3	Milligrams per cubic metre
miscible	Liquids form one homogeneous liquid
ppm	Parts per million
wt	vveignt

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of MSDS



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