Section 1: Identification of the Material and Supplier

Product Name: **Riteodour**

Other Names: Ethanol solution.

Proper shipping name (ADG Code): Ethanol solution.

Recommended use: As an air freshener.
Use as directed on the product label.

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: 10 Flammable.

Safety Phrases:
S: 2 Keep out of the reach of children.
S: 7 Keep container tightly closed.
S: 16 Keep away from sources of ignition - No smoking.

Section 3: Composition/Information on Ingredients

Ingredients:

Ethanol	[64-17-5]	30 - 60 % v/v
Surfactant		< 10 % v/v
Other ingredients deemed not to be hazardous		< 10 % v/v
Water	[7732-18-5]	to 100 % v/v

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 solution of methylated spirit in water, containing low proportions of a surfactant. If swallowed, vomiting should not have been induced because of the risk of aspiration of froth into the lungs. May be irritating to skin and eyes. Ethanol is a central nervous system depressant. Contact Poisons Information Centre.

Aggravated medical conditions:

Liver or kidney disfunction.

Section 5: Fire Fighting Measures

HAZCHEM Code:	2[Y]
Evacuate:	No.
Extinguishant:	Water fog or fine water spray.
Risk of violent reaction or explosion:	Yes. Vapours will be heavier than air - risk of remote ignition. CAUTION: Ethanol flames may be nearly invisible in bright sunlight.
Products of combustion:	Water vapour, oxides of carbon.
Protective Equipment:	Breathing apparatus and protective gloves for fire only.

Section 6: Accidental Release Measures

Emergency Procedures:
Contain.
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 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 naked flames and other sources of ignition.

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. Keep away from naked flames and other sources of ignition. Prevent vapours from collecting in enclosed or low lying spaces. Keep away from oxidising agents. Protect from physical damage. Clean up all spills and splashes promptly; avoid secondary accidents.

Incompatibles:
Oxidising agents.

Section 8: Exposure Controls/Personal Protection

National Exposure Standards:

ES-TWA:	Ethanol	1,000 ppm, 1,880 mg/m³	
ES-STEL:	None assigned by NOHSC, but see:		
	Ethanol	1,250 ppm, 2,400 mg/m³	[Finland]
		3,000 mg/m³	[Hungary, Poland]
ES-PEAK:	None assigned.		
Notations:	None assigned.		

Biological Limit Values: No data found.

Engineering Controls:

Use **only** flame proof equipment.
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 and 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, yellow, mobile liquid.	
Odour:	Perfumed.	
pH:	About neutral.	
Vapour Pressure:	No data.	
Vapour Density:	1.6	[ethanol]
Boiling Point:	From about 78 °C	[ethanol]
Melting Point:	No data.	
Volatiles:	> 90 %	
Volatile Organic Compounds (VOC):	48 %	
Evaporation Rate:	No data.	
Solubilities:	Miscible with water in all proportions.	
Specific Gravity/Density:	0.94 g/mL @ 20 °C	
Flash Point:	27 °C (closed cup)	
Flammable Limits:	3.3 - 19.0 %	[ethanol]
Dust Explosion:	Not applicable.	
Auto-ignition Temperature:	363 °C	[ethanol]

Other Information:

Flammable mixture. Vapour/air mixtures may become flammable. Contact with strong oxidising agents may cause fire. May react with strong mineral acids, caustic alkalis. Slippery when spilled.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Incompatible materials, heat, sources of ignition.

Incompatible Materials: Oxidising agents, mineral acids, caustic alkalis.

Hazardous Decomposition Products: Oxides of carbon.

Hazardous Reactions: Contact with strong oxidising agents may cause fire.

Section 11: Toxicological Information

Health Effects:

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

Acute:

Swallowed: Bitter taste. Likely to cause gastric upset, nausea, vomiting and diarrhoea. Small doses may cause reddening of the face and neck and an exaggerated feeling of well-being. Larger doses may cause an initial burst of excitement and activity followed by increasing loss of coordination, slurred speech, drowsiness, nausea, stupor and coma, and possible death.
An aspiration risk.

Skin: May be irritating to skin. Will have a degreasing effect on the skin. May cause redness and dry skin.

Eyes: A moderate irritant, may cause redness, pain and a burning sensation. Contact with the liquid may cause severe irritation and may cause tissue injury. May cause painful sensitisation to light.

Inhaled: Moderately irritating to the respiratory tract and mucous membranes. Ethanol vapour may cause irritation to the nose and eyes at concentrations well below the TLV.
May cause cough, drowsiness, headache and fatigue. Repeated or prolonged exposure to ethanol vapours may cause symptoms of central nervous system depression, including alcohol intoxication and nausea.
Aspiration of froth into the lungs during swallowing or vomiting may lead to chemical pneumonitis (irritation of lung tissues) and pulmonary oedema (fluid build-up in the lungs). Onset of symptoms may be delayed.

Chronic: Repeated skin contact may lead to irritation and dermatitic effects. Some individuals may become sensitised and/or develop an allergy.
Chronic exposure to ethanol may damage the liver, kidneys and central nervous system.
Consumption of ethanol during pregnancy has been linked to adverse reproductive effects, including birth defects, in experimental animals and humans. **(1)(2)(3)(4)**

LD50:	Ethanol	7,060 mg/kg oral, rat. 3,450 mg/kg oral, mouse.
LDLo:	Ethanol	1,400 mg/kg oral, human. 2,000 mg/kg oral, child.
TDLo:	Ethanol	700 mg/kg oral, man - changes in psychophysiological tests. 1,430 µg/kg oral, man - changes in motor activity, ataxia, antipsychotic. 14,400 mg/kg/30 minutes oral, child - dyspnea, nausea, vomiting, coma.

Section 12: Ecological Information

Ecotoxicity: May be harmful to aquatic organisms.

Persistence and degradability: No data.

Mobility: Readily transported by running water.

Environmental Fate: Ethanol content may readily evaporate to atmosphere.

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 sewer, natural waters or the environment.

Special precautions for landfill or incineration:
High temperature incineration.
May be unsuitable for landfill.

Section 14: Transport Information

UN Number: UN 1170

UN Proper shipping name: Ethanol solution.

Class and subsidiary risk: 3 Flammable liquid.

Packaging group: III

Special precautions for user: Do not store or transport with dangerous goods of classes 1, 2.1 (bulk), 2.3, 4.2, 5.1, 5.2, 7. Contain spillages.

HAZCHEM Code: 2[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 1170 3/III 2[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 update: November 2006
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) *American Journal of Obstetrics and Gynecology. (C.V. Mosby Co., 11830 Westline Industrial Drv., St. Louis, MO 63146) v.145, p.251, 1983.*

(2) *American Journal of Diseases of Children. (AMA, 535 N. Dearborn S., Chicago, IL 60610) v.129 p.1075, 1975*

(3) *American Journal of Diseases of Children. (AMA, 535 N. Dearborn S., Chicago, IL 60610) v.134 p.419, 1980*

(4) *Teratology, The International Journal of Abnormal Development. (Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003) v.44, p.29, 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.