



**MATERIAL SAFETY DATA SHEET**  
**RIOTANE™ (CHLORHEXIDINE 0.5% in ALCOHOL 70% TINTED PINK)**

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**1. Identification of the Product and Company**

<b>Product Name:</b>	<b>RIOTANE™ (CHLORHEXIDINE 0.5% in ALCOHOL 70% TINTED PINK)</b>
<b>Product Code:</b>	RIO02173F, RIO02180F, RIO02191F
<b>Other Names:</b>	None allocated
<b>Use:</b>	A hospital grade disinfectant.
<b>Company Name &amp; Contact Details</b>	Drug Information Pharmacist ORION Laboratories Pty Ltd ABN 56 009 293 136 25-29 Delawney Street, Balcatta, Western Australia 6021 AUSTRALIA <b>Telephone (all hours): +618 9441 7800</b> FREE PHONE: 1800 805 546 FREE FAX: 1800 004 110 EMAIL: customerservice@orion.net.au; WEBSITE: www.orion.net.au ORION® is a registered trademark of Orion Laboratories Pty Ltd
<b>Other Information</b>	All reasonable care has been taken to ensure information and advice contained in this data sheet is accurate at time of printing. However, Orion accepts no liability for any loss or damages suffered as a consequence of reliance on the information contained herein.

**2. Hazards Identification**

<b>Hazard Classification</b>	<b>HAZARDOUS SUBSTANCE. DANGEROUS GOOD.</b>
<b>Risk phrase(s)</b>	R11 – Highly Flammable; R20/22 – Harmful by inhalation and if swallowed; R36/38 – Irritating to the eyes and skin; R66 – Repeated exposure may cause skin dryness and cracking.
<b>Safety phrase(s)</b>	S7 – Keep container tightly closed; S16 – Keep away from sources of ignition – no smoking; S23 – Do not breathe vapour; S24/25 – Avoid contact with skin and eyes; S29 – Do not empty into drains; S33 – Take precautionary measures against static discharges; 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 whenever possible).

**3. Composition/Information on Ingredients**

<b>Chemical Entity</b>	<b>CAS No:</b>	<b>Proportion</b>
Ethanol (alcohol)	64-17-5	>60%
Chlorhexidine gluconate	18472-51-0	<10%
Colour	-	<10%
Purified Water	7732-18-5	to 100% v/v

**4. First Aid Measures**

<b>Inhalation:</b>	Remove patient to fresh air. If respiratory irritation, dizziness, nausea or headache occurs, seek immediate medical attention. Apply artificial respiration if breathing stops.
<b>Ingestion:</b>	If swallowed, give large amounts of water to drink. Do not induce vomiting. Contact a doctor or Poisons Information Centre.
<b>Skin:</b>	Remove contaminated clothing and wash skin with water. Launder contaminated clothing before use.
<b>Eye:</b>	Hold eyelids open and flush eye with gently running water for at least 15 minutes. Seek medical attention promptly if irritation persists.
<b>Advice to Doctor:</b>	Care should be taken during emesis to prevent pulmonary aspiration of the return flow. If respiration is depressed, assisted respiration may be necessary.

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### 5. Fire Fighting Measures

*Highly flammable liquid.* Burns with a colourless flame. Eliminate all possible sources of ignition. Ventilate area well. Contain using sand or earth and use an absorbent (sand, sawdust, vermiculite) where appropriate. Collect and seal in properly labelled containers for disposal. Wash area down with excess water.

<b>Extinguishing Media</b>	Water fog/spray, carbon dioxide, dry chemical powder, carbon dioxide or alcohol stable foam.
<b>Hazards from Combustion products</b>	On burning may emit toxic fumes including carbon monoxide and carbon dioxide. Remove containers from path of fire. Heating can cause expansion and rupture of containers. Keep containers cool with water spray.
<b>Precautions &amp; Equipment for Fire Fighters</b>	Fire-fighters should wear self-contained breathing apparatus as exposure to vapour or combustion products is likely. Vapour is heavier than air and may travel along the ground. Distant ignition is possible.
<b>Hazchem Code</b>	2[Y]E

### 6. Accidental Release Measure

Eliminate all possible sources of ignition; take measures to prevent static discharge. Stop & contain spill; avoid entry into drains & waterways; use inert absorbent material (sand, vermiculite). Dispose all waste containers and used drums in accordance with local authority guidelines. Ventilate area well. Cleanup personnel to wear suitable respirator to minimise inhalation & protective clothing (eg gloves) to avoid skin contact.

### 7. Handling and Storage

<b>Safe Handling Practices</b>	Alcoholic solutions are highly flammable. <ul style="list-style-type: none"><li>▪ Avoid pooling on surfaces.</li><li>▪ Do not use near a naked flame or other ignition source.</li></ul>
<b>Storage</b>	Should not be stored or transported with flammable gases, explosives, spontaneously combustible substances, oxidising agents or foodstuffs. Store away from sources of heat or ignition. Store in a well-ventilated area and keep containers closed when not in use to avoid evaporation. Store below 25°C. Protect from light.

### 8. Exposure Controls; Personal Protection

<b>Exposure Limits</b>	There are no known Threshold Limit Values (TLV) for Riotane™ Chlorhexidine 0.5% in Alcohol 70% but the following limits for 100% ethanol should serve as a guide:  Ethanol 1000ppm; TWA: time weighted average airborne concentration over an eight-hour day, for a five-day working week over an entire working life. 100% 1880mg/m <sup>3</sup>
<b>Engineering Controls</b>	Respiratory protection is not necessary under normal circumstances. Maintain concentration below recommended exposure limit & use with adequate ventilation at all times.
<b>Personal Protection</b>	Avoid contact with eyes, ears, mucous membranes and broken skin. If spillage or splashing is likely to occur during handling, wear safety spectacles. Approved barrier creams may prove useful in preventing dermatitis when prolonged skin contact is unavoidable. Wash hands before smoking, eating, drinking or using the toilet. Do not smoke.

### 9. Physical and Chemical Properties

<b>Appearance:</b>	A pink, water miscible, mobile liquid with alcoholic odour.		
<b>Boiling Point:</b>	78°C	<b>Flashpoint:</b>	21°C (closed cup)
<b>Vapour Pressure:</b>	<58.1mbar:20°C	<b>Solubility in Water:</b>	Miscible
<b>Specific Gravity:</b>	0.89	<b>Percent Volatiles</b>	70% v/v

## 10. Stability and Reactivity

<b>Chemical Stability:</b>	Stable
<b>Hazardous Polymerisation:</b>	Will not occur
<b>Incompatible Materials:</b>	Will react with strong oxidizing agents
<b>Conditions to Avoid:</b>	Heat, sparks, flame and build-up of electricity.
<b>Hazardous Decomposition:</b>	Burning can produce carbon monoxide and/or carbon dioxide

## 11. Toxicological Information

<b>Inhalation:</b>	Moderately irritating to mucous membranes.
<b>Ingestion:</b>	May cause nausea and vomiting. Aspiration may cause lung damage.
<b>Skin:</b>	May cause irritation and reddening.
<b>Eye:</b>	Vapour may irritate the eyes. Liquid or mist may irritate or damage the eyes
<b>Chronic:</b>	Long term exposure by swallowing or repeated inhalation may cause degenerative changes in the liver, kidneys, gastrointestinal tract and heart muscle. LD50/oral/rat: 7060mg/kg; LC50/inhalation/rat 38mg/l/10h [literature data for pure Ethanol].

## 12. Ecological Information

<b>Mobility in Soil:</b>	Not known.
<b>Persistence and Degradability:</b>	No data available; Degree of elimination (ethanol 100%) 94%
<b>Ecotoxicity:</b>	Toxicity to fish: > 1000mg/L/48h (Ethanol 100%)

## 13. Disposal Considerations

<b>Disposal Methods &amp; Containers:</b>	Wash empty containers with water. Waste material may be incinerated under controlled conditions where permitted. Refer to local Waste Management Authority Regulations for other approved methods. Empty containers should be decontaminated by rinsing with water prior to disposal.
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## 14. Transport Information

<b>UN Number:</b>	UN number 1170. Dangerous substance for the purpose of transport. Refer to appropriate State Regulations for storage and transport requirements.
<b>UN Proper Shipping Name:</b>	Ethanol Solutions
<b>DG Class &amp; Packing Group:</b>	Classified as Flammable Liquid class 3, PG II.
<b>Hazchem Code:</b>	2[Y]E

## 15. Regulatory Information

<b>Poisons Schedule:</b>	Not scheduled
<b>Classification:</b>	Hazardous according to criteria of NOHSC. Dangerous Good according to criteria of the Australian Dangerous Good Code.

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**16. Other Information**

**References:**

- *Ethanol MSDS-022 issued 04/2010* Sucrogen BioEthanol Pty Ltd (CSR distilleries)
- *Chlorhexidine Digluconate 20% solution, issued 11/06/2008*, Science Lab.com

Checked by: Anna McLean	Date: April 2010
Approved by: Robert Kimpton	Date: April 2010

Revision Information

Date	Document	Superseded Document	Revision Information
November 2005	RIO00806_01 November 2005	N/A	New document
November 2008	RIO00806_02 November 2008	RIO00806_01 November 2005	General review
April 2010	RIO00806_3 April 2010	RIO00806_02 November 2008	General review

END OF MSDS