1. Identification of the Product and Company

Product Name: CHLORHEXIDINE 2% in ALCOHOL 70% TINTED PINK

Product Code: CHL02342F, CHL02023F, CHL02212F

Other Names: None allocated.

Use: Hospital grade disinfectant.

Company Name & Contact Details

Medical Information Associate
Distributed by Perrigo Australia
Orion Laboratories Pty. Ltd., trading as Perrigo Australia
ABN 56 009 293 136
25-29 Delawney Street, Balcatta, Western Australia 6021 AUSTRALIA
Telephone (all hours): +618 9441 7800
FREE PHONE: 1800 805 546 FREE FAX: 1800 004 110
EMAIL: customerservice@perrigo.com.au; WEBSITE: www.perrigo.com.au
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Other Information

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

Hazard Classification HAZARDOUS SUBSTANCE. DANGEROUS GOOD.

Risk phrase(s) R11 – Highly Flammable; R20/22 – Harmful by inhalation and if swallowed.

Safety phrase(s) S7/9 - Keep container tightly closed and in a well ventilated place.
S16 - Keep away from sources of ignition - No smoking.
S25 - Avoid contact with the eyes

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Entity</th>
<th>CAS No:</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (alcohol)</td>
<td>64-17-5</td>
<td>&gt; 60% v/v</td>
</tr>
<tr>
<td>Chlorhexidine Gluconate</td>
<td>18472-51-0</td>
<td>&lt; 10% w/v</td>
</tr>
<tr>
<td>Colour</td>
<td></td>
<td>&lt; 10% w/v</td>
</tr>
<tr>
<td>Water - purified</td>
<td>7732-18-5</td>
<td>&gt; 30% v/v</td>
</tr>
</tbody>
</table>

4. First Aid Measures

Inhalation: Remove patient to fresh air. If respiratory irritation, dizziness, nausea or headache occurs, seek immediate medical attention. Apply artificial respiration if breathing stops.

Ingestion: Give plenty of water to drink. Seek medical attention or contact Poisons Information (Australia 13 11 26). Do not attempt to induce vomiting or give anything by mouth to an unconscious person.

Skin: Remove contaminated clothing and wash skin with water. Launder contaminated clothing before use.

Eye: Hold eyelids open and flush eye with gently running water for at least 15 minutes. Seek medical attention promptly if irritation persists.

Advice to Doctor: Care should be taken during emesis to prevent pulmonary aspiration of the return flow. If respiration is depressed, assisted respiration may be necessary.
5. Fire Fighting Measures

Highly flammable. 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.

Extinguishing Media

Water fog/spray, carbon dioxide, dry chemical powder or alcohol stable foam.

Hazardous Combustion Products

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.

Precautions & Equipment for Fire Fighters

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.

Hazchem Code

2[Y]E

6. Accidental Release Measure

Eliminate all possible sources of ignition. Ventilate area well. Cleanup personnel to wear suitable respirator to minimise inhalation & protective clothing (eg gloves) to avoid skin contact.

7. Handling and Storage

Safe Handling Practices

Alcoholic solutions are highly flammable.
- Avoid pooling on surfaces.
- Do not use near a naked flame or other ignition source.

Storage

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

Exposure Limits:

There are no known Threshold Limit Values (TLV) for Chlorhexidine 2%, in Alcohol 70% Tinted Pink but the following limits for 100% ethanol should serve as a guide:

Ethanol TLV

1000ppm: TWA

1880mg/m³

TWA: time weighted average airborne concentration over an eight-hour day, for a five-day working week over an entire working life.

Engineering Controls

No respiratory protection is necessary under normal circumstances. Maintain concentration below recommended exposure limit and use with adequate ventilation at all times.

Personal Protection

Avoid contact with eyes, ears, mucous membranes and broken skin. If spillage or splashing are 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

Appearance:

A clear pink, mobile liquid with alcoholic odour.

pH:

Not known

Flash point

21°C (closed cup)

Vapour Pressure:

<58.1mbar; 20°C

Solubility:

Miscible

Vapour Density:

Not known

Specific Gravity or Density:

0.875 – 0.895g/mL

Boiling Point:

78°C
10. Stability and Reactivity

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

11. Toxicological Information

| Inhalation: | Moderately irritating to mucous membranes. |
| Ingestion: | May cause nausea and vomiting. Aspiration may cause lung damage. |
| Skin: | May cause irritation and reddening. |
| Eye: | Vapour may irritate the eyes. Liquid or mist may irritate or damage the eyes |
| Chronic: | Long term exposure by swallowing or repeated inhalation may cause degenerative changes in the liver, kidneys, gastrointestinal tract and heart muscle. |

12. Ecological Information

| Mobility: | Not known. |
| Persistence and Degradability: | No data available; Degree of elimination of 100% ethanol: 94% |
| Ecotoxicity: | (100% ethanol) – Toxicity to fish: > 1000mg/l/48h. |

13. Disposal Considerations

| Disposal Methods & Containers: | 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. |

14. Transport Information

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

15. Regulatory Information

| Poisons Schedule: | Schedule 5 using the criteria in the Standard Uniform Schedule for Medicines and Poisons. |
| Classification: | Hazardous according to criteria of NOHSC. Dangerous Good according to criteria of the Australian Dangerous Good Code. |

16. Other Information

| References: | • Ethanol MSDS-022 issued 10 August 2010 Sucrogen Bioethanol |
| | • Chlorhexidine Digluconate 20% solution, issued July 2002, Australian Pharmaceutical Ingredients |

END OF MSDS