MATERIAL SAFETY DATA SHEET
CHLORHEXIDINE 0. 5% in ALCOHOL 70 %

1. Identification of the Product and Company

Product Name:	**CHLORHEXIDINE 0.5% in ALCOHOL 70%**
Other Names:	Nil
Use:	Antimicrobial Hospital grade disinfectant.
Company Name & Contact:	
Details:	Distributed by Barrs Pharmaceuticals Industries (Pty) Ltd. 10 Inyoni Street NDABENI 7405 **Telephone (all hours): 021 531 6601**
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 Barrs Pharmaceuticals Industries accepts no liability for any loss or damage suffered as a consequence of reliance on the information contained herein.

2. Hazards Identification

Hazard Classification:	**HAZARDOUS SUBSTANCE. DANGEROUS GOODS.**
Risk phrase(s):	R11 - Highly Flammable
Safety phrase(s):	S2 - Keep out of reach of children S7 - Keep container tightly closed S16 - Keep away from sources of ignition S25 - Avoid contact with the eyes

3. Composition/Information on Ingredients

Chemical Entity:	**Proportion**
Ethanol	>60 % v/v
Chlorhexidine Gluconate	<5 % v/v
Colour	<5 % w/v
Water – purified	>30 % v/v

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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:	If swallowed, give large amounts of water to drink. Do not induce vomiting. Contact a doctor or Poisons Information Centre.
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 liquid. Burns with a colourless flame. Eliminate all possible sources of ignition. Ventilate area well. Contain using sand or earth and use an inert absorbent (sand, vermiculate) 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.
Hazards from 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:	1170

6. Accidental Release Measure

Eliminate all possible sources of ignition. Ventilate area well; 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. Clean up personnel to wear suitable respirator to minimise inhalation & protective clothing (e.g gloves) to avoid skin contact.

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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 0,5 %, in Alcohol 70 % but the following limits for 100 % ethanol should serve as a guide:

Ethanol TLV	1000 ppm; 1880 mg/m^3	TWA: time weighted average airborne concentration over an eight hours 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 light green liquid, with an alcoholic odour.

pH: 5.0 – 8.0

Solubility in water: Miscible

Vapour Pressure: 33mbar @ 20 °C

Vapour Density: 2.1

Boiling Point: 82.4 °C

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10. Stability and Reactivity

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

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 (ethanol 100 %): 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 rising with water prior to disposal.

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14. Transport Information

Dangerous substance for the purpose of transport. Refer to appropriate Local Regulations for storage and transport requirements.

Proper Shipping Name:	Ethanol Solutions.
DG Class & Packing Group:	Classified as Flammable Liquid class 3, PG II.
Hazchem Code:	1170

15. Regulatory Information

Poisons Schedule:	Not scheduled
Classification:	Hazardous according to criteria of NOHSC. Dangerous Good according to criteria of the South African Dangerous Good Code.

16. Other Information

References:

1. Chlorhexidine Digluconate Solution MSDS, issued 11/06/2008, Science Lab.com
2. Chlorhexidine 0.5 % in alcohol 70 % Tinted Red (CHLOIS97f_MSDS_08_June 2013).