



## MATERIAL SAFETY DATA SHEET

**Product : CHLORHEXIDINE 10% Solution**

### 1. IDENTIFICATION

**Product Name: CHLORHEXIDINE 10% SOLUTION**

**Product Codes: DL5210 - 200mL Amber Glass Poisons Bottle**

**Other Names CHLORHEXIDINE DIGLUCONATE 10% SOLUTION**

CHLORHEXIDINE GLUCONATE 10% SOLUTION

**Uses** Used for preparation of decontaminant cleaning solutions.  
Low foaming, cleaning agent for removal of salts and neutralisation of anionic solutions.  
For dilution to required concentration for intended use.  
Strong cationic solution.

Contact Information	Organisation	Location	Telephone
	Dentalife Pty Ltd	Factory 9 / 505 Maroondah Highway Ringwood VIC 3134 Australia	+61 3 9879 1226

Poisons Information Centre (24 hour, 7 days a week) in an emergency : 13 11 26

### 2. HAZARD IDENTIFICATION

**Signal Word** DANGER

**Label Elements:**



**Pictogram**

Hazardous according to criteria of NOHSC/ASCC.

DANGEROUS FOR THE ENVIRONMENT IRRITANT

**Risk Phrases**

H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements**

**Prevention** P273 Avoid release to the environment.  
P280 Wear eye protection/face protection.

**Response** P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P391 Collect spillage



## MATERIAL SAFETY DATA SHEET

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredients :**

Chemical Entity	CAS Number	Proportion
Chlorhexidine Diglucuronate	18472-51-0	10%
Water, Purified	7732-18-5	90%

### 4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	Seek medical treatment. Do not give anything by mouth to an unconscious or convulsing person.
Eye	Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention.
Skin	Remove contaminated clothing immediately and drench affected skin with plenty of water, then wash with soap and water. Continue to wash the affected area for at least 15 minutes. If symptoms occur obtain medical attention. Contaminated clothing should be thoroughly cleaned.
Inhaled	Remove persons affected by vapour to fresh air. If breathing becomes difficult, call a physician. Apply artificial respiration only if patient is not breathing or under medical supervision.

Advice to Doctor Symptomatic treatment and supportive therapy based on judgement of doctor and individual reactions of patient.

**Medical Conditions Aggravated by Exposure**

No information available on medical conditions aggravated by exposure to this product. Most important symptoms and effects, both acute and delayed Severe irritant to the eye. Accidental ingestion is likely to result in irritation of the gastrointestinal tract.

### 5. FIRE FIGHTING MEASURES

**Extinguishing Media**

In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions. For small fire, use dry chemical powder. For large fires, use water spray, fog foam. Do NOT use water jet.

**Hazards from Combustion Products**

Combustible liquid. Incompatible with oxidising agents, anionic compounds, sulfates, borates, bicarbonates, chlorides, chlorinating substances and sources of ignition. When involved in a fire, this product may generate carbon oxides, nitrogen oxides and halogenated compounds.

**Special Protective Precautions and Equipment for Fire Fighters**

Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit. Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low



## MATERIAL SAFETY DATA SHEET

### Special Protective Precautions and Equipment for Fire Fighters (contd)

areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.

### Flammability Conditions

Product is a combustible liquid.

### Additional Information

**Hazchem Code** N/A

## 6. ACCIDENTAL RELEASE MEASURES

**General Response Procedure** - Eliminate all sources of ignition. Increase ventilation. Avoid walking through spilled product as it may be slippery. Stop leak if safe to do so. Use clean, non-sparking tools and equipment.

**Clean Up Procedures** - Evacuate the area. Adsorb spillages. Prevent liquid entering sewers, basements and any watercourses. Transfer to a container for disposal or recovery. Collect mechanically and dispose of according to Section 13.

**Containment** - Stop leak if safe to do so.

**Environmental Precautionary Measures** - Eliminate sources of ignition. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Disposal should be in accordance with local, state or national legislation. Ventilate area and wash spill site after material pick up is complete.

**Evacuation Criteria** Evacuate all unnecessary personnel.

**Personal Precautionary Measures** - Wear suitable respiratory protective equipment. Wear suitable protective clothing, gloves and eye/face protection. Contaminated clothing should be thoroughly cleaned

## 7. HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. When using do not eat, drink or smoke. Wash hands and exposed skin after use. Contaminated clothing should be thoroughly cleaned.
Storage	Store in a cool, dry, well-ventilated, fire-proof area. Keep containers tightly sealed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. This product should be stored at a temperature not greater than: 25 deg C. Do NOT freeze.
Container	Container type/package must comply with all applicable local legislation. Store in original packaging as approved by manufacturer.



## MATERIAL SAFETY DATA SHEET

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### National Exposure Standards

No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC).

#### Biological Limit Values

No information available on biological limit values for this product.

#### Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

#### Personal Protection

RESPIRATOR: Wear an approved respirator with suitable vapour respirator or a self-contained breathing apparatus should be used to avoid inhalation of the product (AS1715/1716). EYES: Chemical goggles to prevent splashing in the eyes (AS1336/1337). HANDS: Wear impervious protective gloves (AS2161). CLOTHING: Long-sleeved lab coat, full-suit, and safety footwear (AS3765/2210) NOTE: Suggested protective clothing might not be sufficient; consult a specialist before handling this product.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance .....: Clear, colourless to amber solution

Odour / Fragrance .....: Odourless

Boiling Point (°C) .....: Not available

Vapour Pressure .....: Not available

Specific Gravity .....: 1.0 to 1.1 g/mL

Flashpoint (°C) .....: Not available

Flammability Limits (%) .....: Non flammable

Solubility in Water (g/L) .....: Complete

pH .....: 7.0 to 7.4

Other Properties ..... : Disinfectant and surfactant properties.

### 10. STABILITY AND REACTIVITY

#### Chemical Stability

Product is stable under normal conditions of use, storage and temperature. Combustible liquid.

#### Conditions to Avoid

Avoid excessive heat (>40°C), sunlight, moisture, static discharges, naked flames, and other sources of ignition.



## MATERIAL SAFETY DATA SHEET

### Incompatible Materials

Incompatible with oxidising agents, anionic compounds, sulfates, borates, bicarbonates, chlorides, chlorinating substances and sources of ignition.

### Hazardous Decomposition Products

When involved in a fire, this product may generate carbon oxides, nitrogen oxides and halogenated compounds.

### Hazardous Reactions

Hazardous Polymerisation has not been reported.

## 11. TOXICOLOGICAL INFORMATION

### Toxicity Data

Acute Oral Toxicity : 6300mg/Kg (Mouse - Calculated value for the mixture) Oral Median LD Rat : 2000mg/Kg Acute Oral LD50 Rat : 2000mg/Kg (Chlorhexidine Gluconate) Acute Oral LD50 Mus : 1260mg/Kg Chronic Effects : The substance is toxic to lungs, mucous membrane (human) Routes of Entry : Eye contact, inhalation, ingestion.

### Health Effects - Acute Swallowed

Very hazardous in case of ingestion. May be harmful if swallowed. Accidental ingestion may cause human health damage. It is likely to result in irritation of the gastrointestinal tract.

### Eye

Severe irritant to the eye. This material is considered to represent risk of serious damage to eyes.

### Skin

Hazardous in case of skin contact (irritant). It is not expected to cause significant or prolonged irritation by skin contact. Repeated exposure may cause dermal disturbances. It is not expected to cause systemic harmful effects after skin contact. Product is a photosensitiser. This material showed low primary skin irritation potential to rabbit skin. Eczema and leg ulcer patients patch tested with 1% Chlorhexidine Digluconate solutions developed contact dermatitis. Topical applications of solutions in patients have caused urticaria, dyspnea and anaphylactic shock.

### Inhaled

Hazardous in case of inhalation. The substance is toxic to lungs, mucous membrane (human).

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Acutely toxic towards fish, acutely very toxic to daphnia magna and algae. LC50 (fish, fresh water, 48h) = 13,4 mg/L EC50 (Daphnia magna, 48h) = 0,087 mg/L EC50 (algae, 72h) = 0,081 mg/L



## MATERIAL SAFETY DATA SHEET

### Persistence and Degradability

Bio-elimination : <10% Oxygen consumption Summary : Chlorhexidine Gluconate is not biodegraded in screening level tests due to its antimicrobial properties and high concentration of test substance in these tests. Environmental : Test with activated sludge (Batch and continuous tests) at environmentally relevant, Chlorhexidine Digluconate concentrations demonstrate nearly waste water, largely as a result of bio-degradation.

### Mobility

No information available on mobility for this product. Easily Soluble in water.

### Environmental Fate (Exposure)

Do NOT let product reach waterways, drains and sewers.

### Bioaccumulative Potential

No information available on bioaccumulation for this product

## 13. DISPOSAL CONSIDERATIONS

### Disposal

Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

### Special Precautions for Land Fill or Incineration

Contact a specialist disposal company or the local waste regulator for advice. This should be done in accordance with 'The Hazardous Waste Act'. Bury on an authorized landfill site or incinerate under approved controlled conditions.

## 14. TRANSPORT INFORMATION

### Land Transport (Australia)

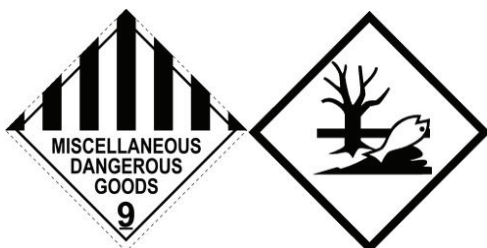
Regulation Name	ADG
UN Number	Not applicable.
Shipping Name	CHLORHEXIDINE DIGLUCONATE SOLUTION
Dangerous Goods Class	Not applicable.
Subsidiary Risk	Not applicable.
Pack Group	Not applicable.
Precaution for User	DANGEROUS FOR THE ENVIRONMENT IRRITANT
Hazchem Code	N/A
EPG	LOW TO MODERATE HAZARD SUBSTANCES
Special Provision	SPAU01



## MATERIAL SAFETY DATA SHEET

### Sea Transport (Australia)

**Regulation Name** IMDG  
**UN Number** 3082  
**Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Chlorhexidine 10% Solution)  
**Dangerous Goods Class** 9 Miscellaneous Dangerous Substance  
**Subsidiary Risk** Not applicable.  
**Pack Group** III  
**Precaution for User** DANGEROUS FOR THE ENVIRONMENT IRRITANT  
**Hazchem Code** 3Z  
**EPG** 47 LOW TO MODERATE HAZARD SUBSTANCES  
**Special Provision** Not applicable.



### Air Transport (Australia)

**Regulation Name** IATA  
**UN Number** 3082  
**Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Chlorhexidine Digluconate 10% Solution)  
**Dangerous Goods Class** 9 Miscellaneous Dangerous Substance  
**Subsidiary Risk** Not applicable.  
**Pack Group** III  
**Precaution for User** DANGEROUS FOR THE ENVIRONMENT IRRITANT  
**Hazchem Code** 3Z  
**EPG** LOW TO MODERATE HAZARD SUBSTANCES  
**Special Provision** Not applicable.





## MATERIAL SAFETY DATA SHEET

Page 8 of 8

### 15. REGULATORY INFORMATION

Not applicable.

**Poisons Schedule** Not Applicable

**EPG** 47

**AICS Name** D-GLUCONIC ACID, COMPOUND WITH N"N"-BIS(4-CHLOROPHENYL)-3,12-DIIMINO-2,4,11,13- TETRAAZATETRADECANEDIIMIDAMIDE (2:1)

**HSNO Hazard Classification** 6.1E 6.3A 6.4A 9.1B

### 16. OTHER INFORMATION

**Literature References** No data available.

**Sources for Data** No data available.

**This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. No warranty, either expressed or implied, is made with respect to the information or the product to which the information refers. Each user must review this MSDS in the context of how the product will be handled and used in the workplace.**

---

End of Document