

SAFETY, HEALTH & ENVIRONMENT**MATERIAL SAFETY DATA SHEET**

Doc. no.: DSSH-10-CDA-00

DECEMBER 2011

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TITLE**D'fend Hospital Concentrate****1. Identification of the Product and Company**

Product Name	D'fend Hospital Concentrate
Product Code	CDA
Other names	Chlorhexidine Gluconate and Cetrimide concentrate solution.
Use	To clean and disinfect equipments.
Company Name & Contact Details	Dishman Pharmaceutical & Chemical Ltd. Bhadr-raj chambers, Swastik Cross Roads, Navrangpura, Ahmedabad, India Tel: +91 (0) 79 26443053 Fax: +91 (0) 79 26420198 Dishman Pharmaceutical & Chemical Ltd. Survey No. 47, Paiki Sub Plot No. 1, Vill. : Lodariyal, Tal. : Sanand, Dist. : Ahmedabad – 382220 (India) Tel: +91 (0) 2717 287192-94 Fax: +91 (0) 2717 287195

2. Hazards Identification

Hazard classification	NON-HAZARDOUS PRODUCT NON-DANGEROUS GOODS
Risk Phrases(s)	None under normal operation conditions. May cause eye and skin irritation. May be harmful if swallowed.
Safety Phrases	S39 : Wear eye/face protection. S26: In case of contact with eyes rinse immediately with plenty of water & seek medical advice.

3. Composition/Information on ingredients

Chemical Entity	CAS No.	Proportion
Water	7732-18-5	>30%
Chlorhexidine Gluconate	18472-51-0	1.5%
Strong Cetrimide Solution	8044-71-1	15%
Isopropyl alcohol	67-63-0	0 – 10%
Dye		0 – 10%

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Fragrance

Not found

0 – 10%

4. First Aid Measures**Inhalation**

If fumes or combustion products are inhaled remove to fresh air and keep patient at rest. Seek medical attention immediately.

Ingestion

If material is swallowed, get medical attention or advice. If swallowed do not induce vomiting. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.

Skin

No adverse effects anticipated from normal use. Concentrate and diluted solution is readily removed with water. Seek medical attention in event of irritation.

Eyes

If this product comes in contact with the eyes, wash out immediately with fresh running water. If pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Advice to Doctor

Treat symptomatically. If respiration is depressed, assisted respiration may be necessary.

5. Fire Fighting Measures**Specific Hazards**

There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog.

Hazards from Combustion Products

On thermal decomposition: oxides of carbon, nitrogen oxides (Nox), chloride, hydrogen bromide and other pyrolysis products typical of burning organic material.

Precautions & Equipments for Fire Fighters

Fire fighters should wear full-face, self contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling any combustion products.

HazChem Code

None.

6. Accidental Release Measures**Spills and Disposal**

Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. In case of large spills, wear

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protective clothing to prevent skin & eye contact and inhalation of vapors. Contain & absorb using inert material such as sand, earth, vermiculite where appropriate. Collect and seal in properly labeled containers for disposal. Wash area down with excess water.

7. Handling and Storage**Safe handling practices**

Wash thoroughly after handling. Use in well-ventilated area. Avoid eye contact and prolonged inhalation of vapors. When handling do not eat, drink or smoke. Avoid physical damage to containers. Use good occupational work practice.

Storage

Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks.

8. Exposure Controls; Personal Protection**Exposure limits**

There are no known exposure limits for this product but the following Threshold limit values (TLV) for isopropyl alcohol should be used:

Isopropyl alcohol [67-63-0]:

TLV : 400ppm (983 mg/m³)TWA.

ACGIH : 200ppm TWA & 400ppm STEL.

OSHA : 400ppm TWA & 980 983 mg/m³ TWA.

The following materials had no OELs on our records.

Chlorhexidine gluconate : CAS : 18472-51-0

Strong cetrimide solution : CAS : 8044-71-1

Water : CAS : 7732-18-5

Engineering Controls

General exhaust is adequate under normal operating conditions. Correct fit is essential to obtain adequate protection. Provide adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Avoid creation of aerosols. Local and or mechanical (general) exhaust, fitted with flame and explosion proof electrical fittings.

Personal Protection

Obey reasonable safety precautions and practice good housekeeping.

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Appearance & Odour	Orange coloured solution with characteristic odour.
pH	5.5 - 7.0
Vapour Pressure	Not available
Vapour Density	Not available
Boiling Point	Not available
Freezing/Melting Point	Not available
Solubility	Soluble in water.
Specific Gravity / Density	0.900 - 1.100 gm/ml
Flash Point	Not available
Viscosity	Not available

10. Chemical Stability & Reactivity Information

Conditions Contributing to instability	Stable under usual application conditions.
Hazardous Polymerization	Hazardous polymerization will not occur.
Incompatible Materials	Keep away from incompatible materials.
Conditions to avoid	High temperature.
Hazardous Decomposition products	On thermal decomposition oxides of carbon, nitrogen oxides (Nox), chloride, hydrogen bromide and other pyrolysis products typical of burning organic material.

11. Toxicological Information

Inhalation	Not normally a hazard due to non-volatile nature of product. The material is not thought to produce adverse health effects or irritation of the respiratory tract.
Ingestion	May be harmful if swallowed. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.
Skin	May cause skin irritation. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the not considered to cause

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discomfort through normal use.

Eye

The materials may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

Acute toxicity

Toxicity : Not available. Refer to individual constituents.

Acute toxicity (for Isopropyl Alcohol)

Oral, rat: LD50 = 5045 mg/kg
Inhalation, rat: LC50 = 16000 ppm/8H

Acute toxicity (for Chlorhexidine gluconate)

Oral, rat: LD50 = 2000 mg/kg

Acute toxicity (for Water)

Oral, rat: LD50 = >90 mL/kg

Acute toxicity (for strong cetrimide)

Cetrimide : Reported Oral Rat figures for component Alkyl trimethyl Ammonium Br salts,
C14 Alkyl : LD50 > 2000mg/kg
C12 Alkyl : LDLo = 300mg/kg (chloride salt)
C16 Alkyl : LD50 = 410mg/kg

12. Ecological Information

The environmental characteristic of this mixture have not been fully evaluated. Releases to the environment should be avoided. Do not discharge into sewer or waterways. Refer to data for ingredients, which follows :

Persistence & Degradability: No data available.

Ecotoxicity (for Isopropyl Alcohol) Fish: Fathead Minnow: >1000 ppm; 96h; LC50Daphnia: >1000 ppm; 96h; LC50Fish: Gold orfe: 8970-9280 ppm; 48h;

Ecotoxicity (for Cetrimide) The group of Alkyl trimethyl Ammonium Bromides contained in Cetrimide have been shown to be very toxic to aquatic organisms. Typical ranges of toxicity are :-

LC50 96 hour, Fish : <10 mg/L
IC50 72 hour, Algae : <1 mg/L
EC50 96 hour, Bacteria : <0.1 mg/L

Ecotoxicity (for others) No significant Ecotoxicity data identification in literature search for Chlorhexidine gluconate and water.

13. Disposal Considerations**Disposal Methods & Containers:**

Dispose of in a manner consistent with federal, state, and local regulations.

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TITLE**D'fend Hospital Concentrate****14. Transport Information**

UN Number	Not regulated.
UN Proper Shipping Name	Not regulated for transport of dangerous goods.
DG Class & Subsidiary Risk	Not dangerous goods.
Packing Group	Not regulated.
HazChem Code	None

15. Regulatory Information

Not classified using the criteria in the Standard Uniform Schedule for Drugs and Poisons.

16. Other Information

Legal disclaimers :

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. **DISHMAN PHARMACEUTICALS & CHEMICALS LTD** shall not be held liable for any damage from handling or from contact with the above product.