

**Toroprep (CHG 2% w/v & IPA 70% v/v) (clear/tinted-liquid)**



(Hospital Division)

A MEMBER OF TORRENT GROUP

### Safety Data Sheet

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### Material Safety Data Sheet

**Product Name : TOROPREP**

**MSDS No. : MSDS/FZDT23/01**

**Version No.: 01**

**Effective Date: 31/01/2019**

**Ref. SOP: SOP/QA/020/03**

**Page No.: 1 of 13**

#### Product identifier

TOROPREP (0.5% - 2% CHG, 70% IPA) (clear/tinted-liquid)

#### Recommended use and restrictions on use

##### Intended Use

Sanitizer / Skin antisepsis

##### Restrictions on use

Not applicable

#### Supplier's details

**Firms Name: TORREL COS. PVT. LTD.**

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#### Emergency telephone number

Medical Emergency Telephone: +91 99241 47043

## SECTION 2: Hazard identification

This product is exempt from hazard classification

### 2.1 Classification of the substance or mixture

Flammable Liquid: Category 2.

Serious Eye Damage/Irritation: Category 2A.

Specific Target Organ Toxicity (single exposure): Category 3.

### 2.2 Label elements

#### Signal word

Danger

#### Symbols

Flame | Exclamation mark |

#### Pictograms



#### Hazard statements

Highly flammable liquid and vapour.

Causes serious eye irritation. May cause drowsiness or dizziness.

#### Precautionary statements

##### Prevention:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Use non-sparking tools. Take action to prevent static discharges. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting equipment. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves and eye/face protection. Wash exposed skin thoroughly after handling.

##### Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Call a POISON centre or doctor/physician if you feel unwell.

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

##### Storage:

Store in a well-ventilated place. Keep cool. Store locked up.

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Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

**2.3 Other hazards**

Repeated exposure may cause skin dryness or cracking.

**SECTION 3: Composition/information on ingredients**

This material is a mixture.

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>% by Wt</b>	<b>Common Name</b>
Isopropyl alcohol	67-63-0	40 - 70	2-Propanol
Water	7732-18-5	30 - 60	Water
CHLORHEXIDINE DIGLUCONATE	18472-51-0	0.5 - 1.5	D-Gluconic acid, compd. with N,N'-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)

Isopropyl alcohol is a hazardous Trade Secret material according to WHMIS criteria. Refer to Section 15 for further information.

**SECTION 4: First aid measures****4.1 Description of first aid measures****Inhalation:**

Remove person to fresh air. If you feel unwell, get medical attention.

**Skin Contact:**

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

**Eye Contact:**

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

**If Swallowed:**

Rinse mouth. If you feel unwell, get medical attention.

**4.2 Most important symptoms and effects, both acute and delayed**

See Section 11.1. Information on toxicological effects.

**4.3 Indication of any immediate medical attention and special treatment required**

Not applicable

## SECTION 5: Fire-fighting measures

### 5.1 Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

### 5.2 Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

## Hazardous Decomposition or By-Products

### Substance

### Condition

Carbon monoxide  
Carbon dioxide

During Combustion  
During Combustion

### 5.3 Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2 Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

### 6.3 Methods and material for containment and cleaning up

Contain spill. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard.

Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

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## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

For industrial or professional use only. Not for consumer sale or use. Keep away from heat/sparks/open flames/hot surfaces.- No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Do not get in eyes. Wear low static or properly grounded shoes. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

### **7.2 Conditions for safe storage including any incompatibilities**

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from oxidizing agents.

## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters**

#### **Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>Agency</b>	<b>Limit type</b>	<b>Additional Comments</b>
Isopropyl alcohol	67-63-0	ACGIH	TWA:200 ppm;STEL:400 ppm	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

### **8.2 Exposure controls**

#### **8.2.1 Engineering controls**

Use explosion-proof ventilation equipment. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

#### **8.2.2 Personal protective equipment (PPE)**

##### **Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Indirect Vented Goggles

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### Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Gloves made from the following material(s) are recommended: Butyl Rubber

Fluoroelastomer

Nitrile Rubber

### Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors

For questions about suitability for a specific application, consult with your respirator manufacturer.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Specific Physical Form:</b>	Liquid
<b>Appearance/Odour</b>	Clear liquid with alcohol odour;
<b>Odour threshold</b>	<i>No Data Available</i>
<b>pH</b>	5 - 8 [ <i>Details:at 25C</i> ]
<b>Melting point/Freezing point</b>	<i>No Data Available</i>
<b>Boiling point</b>	80 °C - 100 °C
<b>Flash Point</b>	22 °C [ <i>Test Method:Closed Cup</i> ]
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Flammable Limits(LEL)</b>	2 % volume
<b>Flammable Limits(UEL)</b>	12 % volume
<b>Vapour Pressure</b>	<i>No Data Available</i>
<b>Vapour Density</b>	<i>No Data Available</i>
<b>Density</b>	0.872 g/ml - 0.887 g/ml

**Toroprep (CHG 2% w/v & IPA 70% v/v) (clear/tinted-liquid)**

<b>Relative density</b>	0.872 - 0.887 [ <i>Ref Std:WATER=1</i> ]
<b>Water solubility</b>	100 %
<b>Solubility- non-water</b>	<i>No Data Available</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>No Data Available</i>
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Decomposition temperature</b>	<i>No Data Available</i>
<b>Viscosity</b>	<i>No Data Available</i>
<b>Volatile Organic Compounds</b>	<i>No Data Available</i>
<b>Percent volatile</b>	<i>No Data Available</i>
<b>VOC Less H2O &amp; Exempt Solvents</b>	<i>No Data Available</i>

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

**10.2 Chemical stability**

Stable.

**10.3 Possibility of hazardous reactions**

Hazardous polymerization will not occur.

**10.4 Conditions to avoid**

Heat

Light

Sparks and/or flames

Light

**10.5 Incompatible materials**

Strong acids

Strong oxidizing agents

**10.6 Hazardous decomposition products**

**Substance**

**Condition**

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

### 11.1. Information on Toxicological effects

#### Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

##### Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

##### Skin Contact:

Contact with the skin during product use is not expected to result in significant irritation.

Prolonged or repeated exposure may cause: Dermal Defatting: Signs/symptoms may include localized redness, itching, drying and cracking of skin.

Allergic Skin Reaction (non-photo induced) in sensitive people: Signs/symptoms may include redness, swelling, blistering, and itching.

##### Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

##### Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. May cause additional health effects (see below).

#### Additional Health Effects:

##### Single exposure may cause target organ effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.



**Toroprep (CHG 2% w/v & IPA 70% v/v) (clear/tinted-liquid)****Toxicological Data**

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

**Acute Toxicity**

Name	Route	Species	Value
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Isopropyl alcohol	Dermal	Rabbit	LD50 12,870 mg/kg
Isopropyl alcohol	Inhalation-Vapor (4 hours)	Rat	LC50 72.6 mg/l
Isopropyl alcohol	Ingestion	Rat	LD50 4,710 mg/kg
CHLORHEXIDINE DIGLUCONATE	Dermal	Rabbit	LD50 > 5,000 mg/kg
CHLORHEXIDINE DIGLUCONATE	Ingestion	Rat	LD50 2,000 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Isopropyl alcohol	Multiple animal species	No significant irritation
CHLORHEXIDINE DIGLUCONATE	Rabbit	No significant irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
Isopropyl alcohol	Rabbit	Severe irritant
CHLORHEXIDINE DIGLUCONATE	Rabbit	Corrosive

**Toroprep (CHG 2% w/v & IPA 70% v/v) (clear/tinted-liquid)****Skin Sensitization**

Name	Species	Value
Isopropyl alcohol	Guinea pig	Not classified
CHLORHEXIDINE DIGLUCONATE	Human and animal	Some positive data exist, but the data are not sufficient for classification

**Respiratory Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

Name	Route	Value
Isopropyl alcohol	In Vitro	Not mutagenic
Isopropyl alcohol	In vivo	Not mutagenic
CHLORHEXIDINE DIGLUCONATE	In Vitro	Not mutagenic
CHLORHEXIDINE DIGLUCONATE	In vivo	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Isopropyl alcohol	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
CHLORHEXIDINE DIGLUCONATE	Ingestion	Multiple animal species	Not carcinogenic

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**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
Isopropyl alcohol	Ingestion	Not classified for development	Rat	NOAEL 400 mg/kg/day	during organogenesis
Isopropyl alcohol	Inhalation	Not classified for development	Rat	LOAEL 9 mg/l	during gestation
CHLORHEXIDINE DIGLUCONATE	Ingestion	Not classified for development	Rat	NOAEL 30 mg/kg/day	during gestation

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Isopropyl alcohol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Isopropyl alcohol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Isopropyl alcohol	Inhalation	auditory system	Not classified	Guinea pig	NOAEL 13.4 mg/l	24 hours
Isopropyl alcohol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
CHLORHEXIDINE DIGLUCONATE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

**Toroprep (CHG 2% w/v & IPA 70% v/v) (clear/tinted-liquid)****Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Isopropyl alcohol	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 12.3 mg/l	24 months
Isopropyl alcohol	Inhalation	nervous system	Not classified	Rat	NOAEL 12 mg/l	13 weeks
Isopropyl alcohol	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 400 mg/kg/day	12 weeks
CHLORHEXIDINE DIGLUCONATE	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 0.89 mg/kg/day	1 years
CHLORHEXIDINE DIGLUCONATE	Ingestion	immune system	Not classified	Rabbit	NOAEL 71 mg/kg/day	2 years
CHLORHEXIDINE DIGLUCONATE	Ingestion	hematopoietic system   kidney and/or bladder	Not classified	Rat	NOAEL 71 mg/kg/day	2 years

**Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.**

**SECTION 12: Ecological information**

No data available.

**SECTION 13: Disposal considerations**

Dispose of contents/ container in accordance with the local/regional/national/international regulations

**Toroprep (CHG 2% w/v & IPA 70% v/v) (clear/tinted-liquid)**

## **SECTION 14: Transport Information**

For Transport Information, please visit [www.torrel.in](http://www.torrel.in) or call +91 79-29701703 / +91 – 79 29701609/ +91 9924147041

## **SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.**

### **Global inventory status**

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Contact Torrel for more information. Contact the selling division for additional information on components. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory.

## **SECTION 16: Other information**

### **National Fire Protection Association (**

**) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.**

**Health: 2 Flammability: 3 Instability: 0 Special Hazards: None**

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

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