

1. IDENTIFICATION

Product identifier: Chlorhexidine 0.5% in Alcohol 70% Tinted Red
Synonyms: CHL01597F, CHL01090S

Global Contact: Perrigo Company
Address: 515 Eastern Avenue
 Allegan, MI 49010 USA

Telephone number: +1 269-673-8451
Emergency telephone: +1 888-464-2986

Australian Contact: Perrigo Australia
Address: 25-29 Delawney Street
 Balcatta, Western Australia 6021 Australia

Telephone number: +618 9441 7800
Emergency telephone: +1 760-476-3962 Code 333304

Poisons Information Centre: 13 11 26

New Zealand Contact: Orion Laboratories (NZ) Pty Ltd
Address: PO Box 781
 Whangaparaoa, New Zealand

Telephone number: +618 9441 7800
Emergency telephone: +1 760-476-3962 Code 333304

National Poisons Centre: 0800 764 766

Recommended use: Hospital Grade Disinfectant
Restrictions on use: None
HSNO Number: HSR002528

2. HAZARD(S) IDENTIFICATION

Classification:

Physical	Health
Flammable Liquid Category 2 (H225)	Eye Irritation Category 2A (H319)

Label Elements

DANGER!



Hazard statement(s)

Highly flammable liquid and vapour.
 Causes serious eye irritation.

Precautionary statement(s)

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 attention.

Precautionary statement(s)

Keep away from heat, sparks, open flames and hot surfaces. No smoking.
 Keep container tightly closed.
 Wash hands thoroughly after handling.
 Wear eye protection.

IF on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
 In case of fire: Use water fog or spray, carbon dioxide, dry chemical or alcohol-resistant foam to extinguish.
 Store in a well-ventilated place. Keep cool.
 Dispose of container and contents in compliance with all national and local regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration	Substance Classification
Ethanol	64-17-5	>60%	Flammable Liquid Category 2 (H225) Eye Irritation Category 2A (H319)
Chlorhexidine Gluconate	18472-51-0	<1%	Eye Damage Category 1 (H318) Aquatic Acute Toxicity Category 1 (H400) Aquatic Chronic Toxicity Category 1 (H410)

4. FIRST-AID MEASURES

Inhalation: Remove person to fresh air. If irritation occurs or symptoms develop, get medical attention.

Skin contact: If irritation develops and persists get medical attention. Remove and contaminated clothing and launder it before reuse.

Eye contact: Immediately flush eyes with water while lifting the upper and lower lids for at least 15 minutes. Remove contact lenses, if present and easy to do after 5 minutes of flushing, then continue flushing. Get medical attention if irritation persists.

Ingestion: Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to a person who is unconscious or convulsing. Get medical attention.

Most important symptoms/effects, acute and delayed: Causes eye irritation. Inhalation may cause headache and drowsiness. Prolonged skin contact may dry the skin.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention is not generally required.

5. FIRE-FIGHTING MEASURES

Extinguishing media: Use water fog or spray, carbon dioxide, dry chemical or alcohol-resistant foam.

Specific hazards arising from the chemical: Highly flammable liquid and vapour. Vapours are heavier than air and can flow to remote ignition sources and flash back. Vapours may be explosive in confined areas. Vapours will collect in low areas. Vapours may be ignited by static sparks. Flames may be invisible in daylight.

Special protective equipment and precautions for fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for all fires involving chemicals. Cool fire exposed containers with water.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear appropriate protective clothing and equipment as described in Section 8. Eliminate all ignition sources and ventilate the area with explosion-proof equipment.

Environmental Precautions: Prevent spill from entering sewers and water courses. Report releases as required by local and national authorities.

Methods and materials for containment and cleaning up: Stop spill at the source if it is safe to do so. Absorb with an inert material. Use non-sparking tools and equipment. Collect into a suitable container for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid eye contact. Avoid breathing vapours. Use only with adequate ventilation. Wash thoroughly after handling. Remove contaminated clothing and launder before re-use. Keep product away from heat, sparks and all other sources of ignition. Do not smoke while using. Do not leave the container in direct sunlight.

Conditions for safe storage, including any incompatibilities: Protect containers from physical damage. Store in a cool area. Keep away from excessive heat and open flames. Store out of direct sunlight. Store away from oxidizers. Store below 25°C. Keep containers closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

Ethanol	1000 ppm STEL ACGIH TLV 1000 ppm TWA AU OEL 1000 ppm TWA NZ OEL
Chlorhexidine Gluconate	None Established

Appropriate engineering controls: Use with adequate general or local exhaust ventilation to minimize exposures levels. Use explosion-proof equipment where required.

Individual protection measures:

Respiratory protection: None needed under normal use conditions. If exposure levels are exceeded or irritation is experienced, an approved organic vapour or supplied air respirator is recommended. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with applicable regulations and good Industrial Hygiene practice.

Skin protection: Impervious gloves recommended.

Eye protection: Chemical safety goggles recommended if needed to avoid eye contact.

Other: None known.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, colour, etc.): Clear, red liquid

Odour: Alcohol odour

Odour threshold: 100 ppm (Ethanol)	pH: 5.0-8.0
Melting point/freezing point: -89.5°C	Boiling Point: 78°C
Flash point: 21°C (closed cup)	Evaporation rate: Not determined
Flammability (solid, gas): Not applicable	VOC: 70% v/v
Flammable limits: LEL: 3% (ethanol)	UEL: 19% (ethanol)
Vapour pressure: 59.3 mmHg @ 25°C (ethanol)	Vapour density: 1.59 (ethanol)
Relative density: 0.88 g/mL	Solubility(is): Miscible in water @ 20°C
Partition coefficient: n-octanol/water: -0.31 (ethanol)	Auto-ignition temperature: Not determined
Decomposition temperature: Not determined	Viscosity: Not determined

10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.

Chemical stability: Stable.

Possibility of hazardous reactions: Reaction with strong oxidizers will generate heat and cause fire.

Conditions to avoid: Avoid heat, sparks, flames, and all other sources of ignition.

Incompatible materials: Avoid oxidizing agents, acids and bases.

Hazardous decomposition products: Thermal decomposition may yield carbon oxides and chlorine compounds.

11. TOXICOLOGICAL INFORMATION

Acute effects of exposure:

Inhalation: Inhalation of vapours may cause irritation of the mucous membranes and upper respiratory tract and central nervous system effects such as dizziness, drowsiness and headache.

Ingestion: Swallowing may cause gastrointestinal irritation and nervous system effects such as drowsiness and dizziness.

Skin contact: No adverse effects are expected. Prolonged skin contact may dry skin. May stain the skin red.

Eye contact: Contact may cause irritation with redness, pain and tearing.

Chronic Effects: None known.

Sensitization: Not a sensitizer.

Germ Cell Mutagenicity: Not a germ cell mutagen. Ethanol did not induce mutations in mouse lymphoma L5178Y TK+/- cells and did not induce micronuclei in Chinese hamster V79 cells in the absence of metabolic activation. No chromosomal aberrations or sister chromatid exchanges were observed in Chinese hamster ovary cells treated with ethanol. Ethanol did not increase the frequency of micronuclei in the bone marrow of mice. Chlorhexidine gluconate was negative in the in-vitro mammalian gene cell mutation asses (OECD 476), the Ames test, and the mammalian chromosome aberration test (OECD 473). It was also negative in an in-vivo micronucleus test in mice.

Reproductive Toxicity: Not a reproductive toxin. Alcoholic beverages are known to cause developmental toxicity when intentionally ingested during pregnancy. Chlorhexidine gluconate did not cause malformations or variations of any kind when tested in rats.

Carcinogenicity: None of the components present at 0.1% or greater are listed as carcinogens or suspected carcinogens by IARC, NTP, or ACGIH Ingestion of alcoholic beverages is known to cause cancer in humans (IARC group 1). Chlorhexidine gluconate did not cause cancer in lifetime feeding studies in rats or mice.

Acute Toxicity Values: Ethanol: LD50 oral rat 7060 mg/kg; LC50 inhalation rat 20000 ppm/10 hr.
Chlorhexidine Gluconate: LD50 oral rat >2000 mg/kg, LD50 dermal rabbit >5000 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity values: Ethanol: Rainbow Trout: LC50 13000mg/L/96hr, Daphnia magna: LC50 9268-14221 mg/L/48hr, Chlorella pyrenoidosa (green algae; growth inhibition) 9310 mg/L/48hr
 Chlorhexidine gluconate: LC50 danio rerio 2.08 mg/L/96 hr; EC50 daphnia magna 0.087 mg/L/48 hr, NOEC 0.02 mg/L/21 d. (mortality); ErC50 algae 0.081 mg/L/72 hr.

Persistence and degradability: Ethanol and chlorhexidine gluconate are readily biodegradable.

Bioaccumulative potential: Ethanol BCF= 3, potential for bioaccumulation is low

Mobility in soil: Ethanol is expected to have high mobility in soil.

Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations. No specific disposal method is recommended.

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
IMDG	UN1170	Ethanol Solution	3	II	No
IATA	UN1170	Ethanol Solution	3	II	No
ADG	UN1170	Ethanol Solution	3	II	No

Hazchem Code: ●2YE

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None known.

15. REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP): Not scheduled.

Australia Inventory: Components are listed on AICS.

New Zealand Inventory: Components are listed on the New Zealand inventory.

16. OTHER INFORMATION

NFPA Rating: Health = 1 Flammability = 3 Instability = 0
HMIS Rating: Health = 2 Flammability = 3 Physical Hazard = 0

SDS Revision History: Corrections to tables in sections 3 and 9.

Date of preparation: 29 November 2016

Date of last revision: 17 July 2016

Full Text of GHS Classification and H Phrases from Section 3:

H225 Highly flammable liquid and vapour.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

List of Abbreviations or Acronyms:

ACGIH American Conference of Industrial Hygienists
ADG Australian Dangerous Goods
AICS Australian Inventory of Chemical Substances
AU Australia
EC Effective Concentration
EU European Union
GHS Globally Harmonized System of Classification and Labelling of Chemicals
HSNO Hazardous Substances and New Organisms
IARC International Agency of Research on Cancer
IATA International Air Transport Association
IMDG International Maritime Dangerous Goods
LC Lethal Concentration
LD Lethal Dosage
LEL Lower Explosive Limit
NTP National Toxicology Program
NZ New Zealand
OEL Occupational Exposure Limits
US OSHA United States Occupational Safety and Health Administration
PEL Permissible Exposure Limit
SDS Safety Data Sheet
STEL Short Term Exposure Limit
TWA Time-Weighted Average
UEL Upper Explosive Limit
VOC Volatile Organic Compounds
WES Workplace Exposure Standards
WHS Work Health and Safety

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