

1. PRODUCT AND COMPANY INFORMATION

Product name : Hu-Scrub
Company : HUONS MEDICARE CO., LTD.
Address : 22, Noksansandan 165-ro, Gangseo-gu, Busan, Republic of Korea
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E-mail : contact@huonsmedicare.com
Website : www.huonsmedicare.com

Recommended use of the chemical and restrictions on use

Recommended use : Disinfection of skin
Restrictions on use : Foodstuffs

2. HAZARDS IDENTIFICATION

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Physical hazard : Flammable liquid - Category 2

Health hazards : Eye Irritation - Category 2

Specific Target Organ Toxicity (Single Exposure) - Category 3

- Specific Target Organ : Respiratory System

Environment hazard : N/A

Label elements including precautionary statements

Symbols

Signal word : Danger



Hazard statements H225 Highly flammable liquid and vapor
H319 Causes serious eye irritation
H335 May cause respiratory irritation

Precautionary statements

Prevention P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge
P280 Wear protective gloves/protective clothing/eye protection/face protection.

- P264 Wash ... thoroughly after handling.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P271 Use only outdoors or in a well-ventilated area.
- protection.** P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P370+P378 In case of fire: Use dry chemical powder and Carbon dioxide fire extinguishers for extinction.
- Storage** P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P235 Keep cool.
- P405 Store locked up.
- Disposal** P501 Dispose of contents/ container to : Comply with applicable regulations

US NFPA

Health : 2

Flammability : 3

Reactivity : 0

Water reactivity : 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No.	EINECS No.	Conc. %
Chlorhexidine gluconate	18472-51-0	242-354-0	0.2 %
Etc.	-	-	0.7~ 1.0 %
Ethanol	64-17-5	200-578-6	< 80 %
Water	7732-18-5	231-791-2	19 %

4. FIRST AID MEASURES
In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

In case of skin contact

Wash off with soap and plenty of water.

If inhaled

If breathed in, move person into fresh air.

If not breathing, give artificial respiration.

Consult a physician.

If swallowed

Never give anything by mouth to an unconscious person.

Rinse mouth with water.

Consult a physician.

Other medical attention.

Medical personnel should be aware of the protective measures of the substance.

Potential health effect

May be harmful if swallowed.

5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point : 20 ° C (Tag Closed Cup)

Suitable extinguishing media

Water spray, alcohol-resistant foam, dry chemical powder, carbon dioxide

Specific hazards arising from the chemical

No data available

Special protective equipment for fire-fighters

The sealed container is cooled by water spray.

After wearing air respirator and safety protection equipment, entering the fire area.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Have a proper exhaust system.

Eliminate all ignition sources

Note the vapor scale that can form an explosion.

Avoid contact with eyes.

Avoid breathing vapor, mist or gas.

Environmental precautions

Don't dispose the product into drainages and waterway.

Methods and materials for containment and cleaning up

. Collect with nonflammable substances (sand and soil)

7. HANDLING AND STORAGE

Precautions for safe handling

- Wear protective gloves/protective clothing/eye protection/face protection.
- Do not spray on an open flame or other ignition source.
- Install a forced exhaust vent in the tank or in an enclosed space.
- Avoid contact with eyes.
- Avoid inhalation of vapor or mist.
- Use the explosion detection device.
- Avoid ignition source. – No smoking
- Do not allow static electricity to accumulate.

Conditions for safe storage

- Keep it tightly closed.
- Keep in a cool, well-ventilated cool dark place.
- Avoid sunlight / ignition source / oxidizing properties (liquids) / oxidizing properties (solids)

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Components with workplace control parameter

- KOSHA:

Chemical Name	TWA	STEL
Ethanol	1,000 ppm (1,900 mg/m ³)	-

-US ACGIH:

Chemical Name	TWA	STEL
Ethanol	-	1000 ppm

Appropriate engineering controls : Ventilation, Emergency shower

Personal protective equipment

Respiratory protection : Approved air respirator with cartridge for organic gas

Eye protection : protective goggles

Hand protection : Chemical resistant gloves

Skin and body protection : Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid at 20°C

Flash point : 20 °C (Tag Closed Cup)

pH : 6.3 ~ 7.3 at 20°C ※ Sample : H₂O = 1 : 5 (V/V)

Viscosity : 3.1 mPa.s (cP) at 20°C

Density : 0.9 at 20°C

Water solubility : Soluble at 20°C

Explosive properties : No self-reaction hazard ※ UN TDG test & criteria - Test E3

Autoignition temperature : No spontaneous ignition below 200°C

Boiling point (Initial) : > 78°C

Partition coefficient (n-octanol/water) : No data available

Vapor pressure : No data available

Freezing point : No data available

Decomposition temperature : No data available

Lower explosion limit / Upper explosion limit : No data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions

Conditions to avoid

- Sunlight/heat/ignition sources /sparks
- Vapors may form explosive mixtures with air.

Materials to avoid

- Oxidizing properties(liquids) and oxidizing properties(solids)

Hazardous decomposition products

Carbon oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral	rat	LD ₅₀ : > 2,000 mg/kg	※ from ECHA/ US NLM
Skin	rabbit	LD ₅₀ : No data available	
Inhalation	rat	LC ₅₀ : No data available	

Skin irritation : No data available

※ from ECHA/ US NLM

Eye irritation

- Irritating (Ethanol)

※ from ECHA/ US NLM

Respiratory sensitization : No data available

Skin sensitization : No data available

Germ cell mutagenicity : No data available

Carcinogenicity : Not classifiable

※ from ECHA

Reproductive toxicity : No data available

Specific target organ toxicity - single exposure

- May cause respiratory irritation (Ethanol)

※ from ECHA/ US NLM

Specific target organ toxicity - repeated exposure : No data available

Aspiration hazard : No data available

12. ECOLOGICAL INFORMATION

Toxicity

Fish	LC ₅₀ : No data available	※ from ECHA/ US NLM
Crustacean	EC ₅₀ : No data available	
Algae	EC ₅₀ : No data available	

Persistence and degradability : No data available

Bioaccumulative potential : No data available

Mobility in soil : No data available

Other adverse effect : No data available

13. DISPOSAL CONSIDERATIONS

Disposal consideration

Disposal according to related environmental regulations

Disposal precaution

Avoid disposing to the environment.

14. TRANSPORT INFORMATION

UN TDG

UN No. : 1993 Class : 3 Packing Group : II

Proper Shipping Name : FLAMMABLE LIQUID, N.O.S. (CONTAINS ETHANOL)

IATA

UN No. : 1993 Class : 3 Packing Group : II

Proper Shipping Name : Flammable liquid, n.o.s. (contains ethanol)

IMDG

UN No. : 1993 Class : 3 Packing Group : II

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (CONTAINS ETHANOL)

Marine pollution : Not applicable

Special precaution

- Fire EmS Guide : F-E (Non-water-reactive flammable liquids)
- Spillage EmS Guide : S-E (Flammable liquids, floating on water)

15. REGULATORY INFORMATION

US OSHA Hazards (GHS) : Flammable Liquids, Irritation, Specific Target Organ Toxicity

16. OTHER INFORMATION

References

- Toxic & ecological information : OECD SIDS, IUCLID, US NLM, HSDB, IARC, ECHA, CCRIS

Acronyms and Websites

- ECHA : European chemical agency, <http://echa.europa.eu/>
- IUCLID : International Uniform Chemical Information Database, <http://esis.jrc.ec.europa.eu/>
- US NLM : U.S. National Library of Medicine, <http://chem.sis.nlm.nih.gov/chemidplus/>
- HSDB : U.S. Hazardous Substances Data Bank, <http://toxnet.nlm.nih.gov/>
- CCRIS : U.S. Chemical Carcinogenesis Research Information System, <http://toxnet.nlm.nih.gov/>
- IARC : International Agency for Research on Cancer, <http://monographs.iarc.fr/>

The product composition is provided by the mentioned company of this SDS' section 1.
This SDS is composed in line with The Korea Occupational Safety and Health Act Article 41
to protect the health of the employees, and for documentation.
This SDS is composed with reference to documents and criteria provided by KOSHA.