

MATERIAL SAFETY DATA SHEET

Product Name

RICO Hand Sanitizer Wipes

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

- a. Product Name RICO Hand Sanitizer Wipes
- b. Recommended use of the chemical and restrictions on use
Recommended use of the chemical human cleanliness
Restrictions on use No data
- c. Manufacturer/Supplier/Distributor Information
Name Hanul co.,Ltd.
Address 11,Sinchon1-ro, Paju-si, Gyeonggi-do, Korea
Emergency phone number 031-944-0015

2. HAZARDS IDENTIFICATION

Hazard. Risk Classification flammable liquid : category 2
Serious eye damage/eye irritation : category 2

Label elements

Pictogram



Hazard symbol
Hazard statements

DANGER

H225 Highly flammable liquid and vapour

H319 Causes serious eye irritation

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

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

P264 Wash contaminated parts thoroughly after handling

P280 Wear protective gloves/protective clothing/eye protection/face 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.

P308+P313 IF exposed or concerned: Get medical advice/attention

P337+P313 If eye irritation persists: Get medical advice/attention

P370+P378 In case of fire: Use water in large amounts, powder, alcohol-resistant foam, carbon dioxide for extinction

Storage

P403+P235 Store in a well-ventilated place. Keep cool

P405 Store locked up

Disposal

P501 Dispose of this material and its container in accordance with local/regional/national/international regulation

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical identity	Synonyms	CAS No.	Assay
Ethyl alcohol anhydrous	Ethanol anhydrous	64-17-5	62.00
1,3-butandiol	-	107-88-0	0.50
Citric acid	Citric acid monohydrate	5949-29-1	0.03
Propolis Extract	-	85665-41-4	0.01
Fragrance	-	-	0.03
Water	Dihydrogen monoxide	7732-18-5	37.43

4. FIRST AID MEASURES

a. In case of eye contact	Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15 minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, transport to a hospital immediately
b. In case of skin contact	Not applicable under normal circumstances If irritation persists, consult a physician
c. If inhaled	Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician
d. If swallowed	Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15 minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists transport to a hospital immediately
e. Notes to physician	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves

5. FIRE FIGHTING MEASURES

Extinguishing media	Use water in large amounts, powder, alcohol-resistant foam, carbon dioxide
Specific hazards arising from the chemical	High flammable The vapour mixes well with air, explosive mixtures are easily formed. Reacts slowly with calcium hypochlorite, silver oxide and ammonia This generates fire and explosion hazard. Reacts violently with strong oxidants such as nitric acid, silver nitrate, mercuric nitrate and magnesium perchlorate. This generates fire and explosion hazard.
Special protective equipment and precautions for firefighters	Firemen should wear normal protective equipment (full bunker gear) and positive-pressure self-contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Remove ignition sources and ventilate the area. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin and eyes.
Environmental precautions	Prevent spills from entering sewers, watercourses or low areas
Methods for cleaning up	Do not touch spilled material without suitable protection. Take up spilled material with ashes or other absorbents. After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly Remove, clean, or dispose of contaminated clothing

7. HANDLING AND STORAGE

Precaution for safe handling	Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Handle material with suitable protection away from source of heat or ignition and use non-sparking type tools. Use explosion-proof electrical equipments and lighting. This material is hygroscopic
Conditions for safe storage	Store away from sunlight in well-ventilated dry place at room temperature (preferably cool place). Keep container tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure standards	
Korea	Ethyl alcohol anhydrous: TWA 1000 ppm, 1900 mg/m ³
ACGIH	Ethyl alcohol anhydrous: TWA 1000 ppm
Appropriate engineering controls	Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation
Individual protection measures	
Respiratory protection	Use a NIOSH/MSHA or European Standard EN149 approved respirator
Eye protection	Safety glasses(goggles)
Hand protection	Chemical resistant gloves
Body protection	Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Form	Wet Nonwoven Sheets
Color	Colorless
Odour	Characteristic odor
Odour threshold value	10 ppm (as Ethyl alcohol anhydrous)
pH	Not available
Freezing point	-115 ~ -73 °C
Initial boiling point	78.3 °C (as Ethyl alcohol anhydrous)
Flash point	20 °C (as Ethyl alcohol anhydrous)
Evaporating rate	17 °C
Flammability(solid, gas)	No data available
Explosive limits	19 / 3.3 % (as Ethyl alcohol anhydrous)
Vapor pressure	57.3 hPa (at 19.6 °C) (as Ethyl alcohol anhydrous)
Solubility in water	Miscible
Vapor density	1.59 (Air= 1) (as Ethyl alcohol anhydrous)
Relative density	0.809~0.816 (at 15 °C)
Partition coefficient: n-octanol/water	-0,31 (as Ethyl alcohol anhydrous)
Autoignition temperature	363 °C (as Ethyl alcohol anhydrous)
Decomposition temperature	No data available
Viscosity	1.17 cP (at 20 °C) (as Ethyl alcohol anhydrous)
Molecular weight	No data available

10. STABILITY AND REACTIVITY

Chemical stability &	Highly flammable
Possibility of hazardous reactions	The vapour mixes well with air, explosive mixtures are easily formed. Reacts slowly with calcium hypochlorite, silver oxide and ammonia This generates fire and explosion hazard. Reacts violently with strong oxidants such as nitric acid, silver nitrate, mercuric nitrate and magnesium perchlorate. This generates fire and explosion hazard.
Conditions to avoid	Sunlight, heat, high temperature
Incompatible materials	Combustible materials, strong oxidizers, calcium hypochlorite, silveroxide, ammonia
Hazardous decomposition products	Hazardous toxic and irritating fumes or smoke may be emitted.

11. TOXICOLOGICAL INFORMATION

Routes of exposures	The substance can be absorbed into the body by inhalation of its vapour and by ingestion. (ICSC)
Health hazard information	
Acute toxicity	
Oral	Ethyl alcohol anhydrous: LD50 15100 mg/kg Rat (OECD SIDS)
Skin	No data available
Inhalation	Ethyl alcohol anhydrous:LC50 > 60000 ppm/1hr Mouse (OECD SIDS)
Skin corrosion/irritation	Ethyl alcohol was not irritating to the skin of rabbit in a study performed in accordance with OECD TG 404 (OECD SIDS)

Eye damage/irritation	Available data from animal studies indicates that ethanol is moderately irritating to the eye. (OECD SIDS)
Respiratory sensitization	No data available
Skin sensitization	Ethyl alcohol was not sensitizing in the maximization test with guineapig. (IUCLID)
Germ cell mutagenicity	The balance of evidence is that ethanol is not genotoxic. Negative results from a number of bacterial mutation assays appear to be reliable. There is very little evidence to suggest that ethanol is genotoxic in somatic cells and it may have a very limited capacity to induce genetic changes in vivo but under very specific circumstances and at very high doses achievable in humans only by deliberate oral ingestion. (OECD SIDS)
Toxic to reproduction	The potential for reproductive and developmental toxicity exists in humans from deliberate over-consumption of ethanol. Blood ethanol concentrations resulting from ethanol exposure by any other route are unlikely to produce reproductive or developmental effects. (OECD SIDS)
Specific target organ toxicity (single exposure)	The substance is irritating to the eyes. Inhalation of high concentrations of the vapour may cause irritation of the eyes and respiratory tract. The substance may cause effects on the central nervous system. (ICSC)
Specific target organ toxicity (repeated exposure)	The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system. This may result in irritation, headache, fatigue and lack of concentration. (ICSC)
Aspiration hazard	No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity	
to fish	LC50 13480 mg/L/96hr Pimephales promelas (OECD SIDS)
to crustacea	LC50 12340 mg/L/48hr Daphnia magna (OECD SIDS)
to other aquatic life	EC50 10000 mg/L/96hr Selenastrum capricornatum (OECD SIDS)
Persistence/degradability	
Persistence	No data available
Degradability	Ethyl alcohol anhydrous: BOD5/COD = 0.57 (IUCLID)
Bioaccumulation potential	
Accumulation	Ethyl alcohol anhydrous: BCF=0.5 (OECD SIDS)
Biodegradability	Ethyl alcohol anhydrous: Readily biodegradable: de-graded to 95 % after 15 days. (OECD SIDS)
Mobility in soil	Mobility in soil Ethyl alcohol anhydrous: log Koc 0.44 (NLM:HSDB)
Other adverse effects	No data available

13. DISPOSAL CONSIDERATION

Disposal methods	Use only licensed transporters and permitted facilities for waste disposal.
Disposal considerations	Dispose of this material and its container in accordance with local/regional/national/international regulation.

14. TRANSPORT INFORMATION

UN Number	1170
UN Proper shipping name	ETHANOL SOLUTION
Dangerous Goods Class	3
Packing Group	II

15. REGULATORY INFORMATION

Korea	
Occupational safety and health act	Substance Requiring Exposure Standards
Toxic chemicals control act	Not listed
Dangerous substance control act	Alcohol, class 4: 400L
Wastes control act	Controlled Waste

16. OTHER INFORMATION

References and sources for data

Korea Occupational Safety & Health Agency(KOSHA)

National Chemicals Information System(NCIS)

Korea Fire Institute(KFI)

TOXNET(United States National Library of Medicine)

ICSCs(International Chemical Safety Cards)

OECD SIDS(OECD Screening Information Data Set)

Revision number and date

2020-04-01

Other

The information in this MSDS is based on several references and the present state of our knowledge.

However, the MSDS does not always cover all information about product. The information in this MSDS is only provision of information, and It does not represent any guarantee of the properties of the product.