

88 Jackson St. • Eugene, Oregon 97402 • thinkingtreespirits.com

Safety Data Sheet Issue Date: March 15, 2020

Product Name: OHA HAND RUB

SECTION 1: IDENTIFICATION

Product Name: THINKING TREE ANTISEPTIC HAND RUB

Chemical Name: Ethanol (80% Solution)

Synonyms: Hand Rub, Glycerol (1.45% v/v) in Ethanol,

Proper Shipping Name: UN 1170, Class 3, PG II, ETHYL ALCOHOL SOLUTION (80%

ETHANOL)

Supplier of the Safety Data Sheet

Supplier Name: THINKING TREE SPIRITS
Address: 88 Jackson St. Eugene, OR 97402

Telephone: 541-357-2211

Emergency: 1-800-424-9300 CHEMTREC

TOLL FREE 24 HOUR EMERGENCY NUMBER

SECTION 2: HAZARD(S) IDENTIFICATION

Classification:

This solution, if used in industry is considered hazardous by the OSHA Hazard Communication Standard 29CFR1910.1200

GHS-US classification

Flam. Liq. 3 H226 Eye Irrit. 2A H319

Label Elements:

Hazard Pictograms (GHS-US)



GHS-US classification

Flam. Liq. 3 H226 Eye Irrit. 2A H319 Skin Irritation 2 H315

Signal Word (GHS-US): Danger

Hazard Statements (GHS-US):



Danger:

H225 – Highly Flammable liquid and vapor

 \Diamond

Warning: Eye Irritant. 2A, Causes serious eye irritation.

H320 – Causes serious eye irritation



Health Hazard: May cause damage to organs through prolonged or repeated exposure

Precautionary Statements (GHS-US):

P210 - Keep away from heat, open flames, sparks. - No smoking.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241-Use explosion-proof electrical, lighting, ventilation equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P264 - Wash hands, forearms, and exposed areas thoroughly after handling.

P280 - Wear eye protection, protective gloves, protective clothing.

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.

P370+P378 - In case of fire: Use appropriate media to extinguish.

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

P501- Dispose of contents/container in accordance with local, regional, national regulations and guidelines

Special Provisions:

None.

Other Hazards:

Hazards Not Otherwise Classification:

Flammable vapors can accumulate in the headspace of closed systems.

Warning: his product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

Ingredients With Unknown Acute Toxicity (GHS-US): Not Available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Name	Product identifier	% (v/v)	GHS-US classification
Ethyl AEthyl Alcohol	(CAS No) 64-17-5 (EC no) 200-578-6	75 - 85	Flam. Liq. 2, H225 Eve Irrit. 2B, H320
Water	(CAS No) 7732-18-5 (EC no) 231-791-2	15 - 20	Not classified
Glycerol	(CAS No) 56-81-5 (EC no) 200-289-5	1.4 – 1.5	Not classified
Hydrogen Peroxide	(CAS No) 7722-84-1 (EC no) 231-765-0	0.12 - 0.13	Skin Corrosion/Irritation 2 H315
			Serious Eye Damage/Eye Irrit. 1 H318
2-Propanol, 2-Methyl	(CAS No) 75-65-0 (EC no) 200-889-7	0-0.85	Flam. Liq. 2, H225 Acute Tox. 4, H332 Eye Irrit. 2, H319
Denatonium Benzoate	(CAS No) 3734-33-6 (EC no) 223-095-20	<0.001 (w/w)	Acute Tox. 4, H302, H332
			Skin Irrit. 2, H315
			Eye Dam. 1, H318

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures:

General: Never give anything by mouth if victim is rapidly losing consciousness or is unconscious or convulsing. DO NOT INDUCE VOMITING. Have victim drink about 250ml (8fl. oz.) of water to dilute material in stomach. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. If exposed or concerned: Seek medical advice/attention.

Inhalation: Artificial respiration should be given if breathing has stopped and cardiopulmonary resuscitation if heart has stopped. Oxygen may be given if necessary. Seek medical attention immediately.

Skin Contact: If symptoms of allergic reaction are observed rinse immediately with large amounts of water. Call a POISON CENTER or doctor/ physician if you feel unwell. Wash contaminated clothing before reuse.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Get medical advice and attention if you feel unwell. Rinse mouth. Do NOT induce vomiting.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes serious eye irritation.

Inhalation: Prolonged exposure to liquid may cause a mild irritation.

Skin Contact: Repeated or prolonged skin contact may cause dermatitis and defatting.

Eye Contact: Causes serious eye irritation. Symptoms may include: Redness, pain, swelling,

itching, burning, tearing, and blurred vision.

Ingestion: Ingestion resulting in a rise of alcohol blood levels to between 0.05 -0.15% will result in 25% of individuals showing signs of intoxication. Severe poisoning occurs when the blood ethanol level is 0.3 -0.5%. Above 0.5% the individual will be comatose and death can occur.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media:

Suitable Extinguishing Media: Alcohol-resistant foam, carbon dioxide, dry chemical, water spray, fog.

Unsuitable Extinguishing Media: Do not use a heavy water stream. A heavy water stream may spread burning liquid. Water may be ineffective because it may not cool material below its flash point.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Highly flammable liquid and vapor.

Explosion Hazard: May form flammable/explosive vapor-air mixture. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

Reactivity: Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. Prevent firefighting water from entering environment.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO2)

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions. Protective Equipment and Emergency Procedures:

General Measures: Use special care to avoid static electric charges. Keep away from heat, sparks, open flames, hot surfaces. - No smoking. Avoid all eyes and skin contact, and do not breathe vapor and mist.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection. Use appropriate personal protection equipment (PPE).

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Environmental Precautions: Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and Material for Containment and Cleaning Up

For **Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material. Use only non-sparking tools.

Reference to Other Sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling:

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

Additional Precautions: Empty containers may contain residual liquids and vapors that are flammable.

Conditions for Safe Storage. Including Any Incompatibilities

Technical Measures: When handling in bulk, use proper grounding procedures to avoid static electricity. Ground/bond container and receiving equipment. Use explosion-proof electrical, lighting, ventilating equipment.

Storage Conditions: Store bulk containers in a dry, cool, and well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container closed when not in use. Keep in fireproof place.

Incompatible Materials: Strong oxidizing agents, acids, alkali metals, ammonia, hydrazine, peroxides, sodium, acid anhydrides, calcium hypochlorite, chromyl chloride, nitrosyl perchlorate, bromine pentafluoride, perchloric acid, silver nitrate, mercuric nitrate, potassium -tert -but oxide, magnesium perchlorate, acid chlorides, platinum, uranium hexafluoride, silver oxide, iodine heptafluoride, acetyl bromide, disulfuryl difluoride, tetrachlorosilane + water, acetyl chloride, permanganic acid, ruthenium (VIII) oxide, uranyl perchlorate, potassium dioxide.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide sufficient ventilation to keep vapors below permissible exposure limit. Gas detectors should be used when flammable gases/ vapors may be released. Proper grounding procedures should be followed to avoid static electricity.

Ensure that all national/local regulations are observed.

Personal Protective Equipment: Protective clothing. Gloves. Protective goggles.

Hand Protection: Wear chemically resistant protective gloves - Neoprene, butyl or natural rubber.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Use chemically protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethyl alcohol	STEL: 1000 ppm	TWA: 1000 ppm (1900 mg/m ³)	IDLH: 3300 ppm TWA: 1000 ppm (1900 mg/ m ³)
Glycerol (10 mg/m ³)		TWA: (15 mg/m ³)	IDLH: No Data Available
Hydrogen Peroxide	$\begin{bmatrix} 1 \text{ WA. 1 ppin} \\ 3 \end{bmatrix} \begin{bmatrix} 1 \text{ WA. 1 ppin} \\ 3 \end{bmatrix} $ TWA		IDLH: 75 ppm TWA: 1 ppm (1.4 mg/m ³)
2-Propanol, 2- Methyl TWA: 100 ppm (303 mg/m ³)		TWA: 100 ppm (300 mg/m ³)	IDLH: 1600 ppm (4848 mg/m ³)
Denatonium Benzoate	Not Listed	Not Listed	Not Listed

Legend

ACGIH TLV - American Conference of Governmental Industrial Hygienists

Threshold Limit Value

OSHA PEL - Occupational Safety and Health Administration Permissible Exposure Limit

NIOSH IDLH - The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

In areas of insufficient ventilation: wear respiratory protection.

- At ethyl alcohol concentrations up to 1000 ppm, an approved organic vapor cartridge respirator can be used.
- For concentrations above 1000 ppm, an air-supplying respirator is recommended.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State Liquid

Appearance Colorless, clear, volatile liquid

Odor

Alcohol-like
Odor Threshold 100-180 ppm
pH No data available
Melting Point/Range No data available

Boiling Point/Range 78°C (172.4°F) to 80°C (174°F) for ethanol

Flash Point 20°C (68°F) for 80% ethanol

Method Closed cup

Evaporation Rate

No data available Not applicable

Flammability (solid, gas)

Flammability or explosive limits

Upper 3.3% for ethanol

Lower

19% for ethanol

Vapor Pressure

44.6 mm Hg@ 20°C (68°F) for ethanol

Vapor Density

at 20°C 1.59 for Ethanol

Specific Gravity

No data available

Solubility

Miscible with water No data available

Partition coefficient; n-octanol/water Autoignition Temperature Decomposition Temperature

No data available
No data available

Viscosity

No data available

VOC Content (%) 80

SECTION 10: STABILITY AND REACTIVITY

Reactive Hazards Reacts violently with strong oxidizers:

(increased risk of fire/explosion)

Stability

Stable at standard temperature and pressure

Conditions to Avoid Heat, flame, sparks, ignition sources, incompatible materials. Incompatible Materials

Strong oxidizing agents, acids, alkali metals, ammonia, hydrazine, peroxides, sodium, acid anhydrides, calcium hypochlorite, chromyl Chloride, nitrosyl perchlorate, bromine pentafluoride, perchloric acid, silver

nitrate, mercuric nitrate, potassium-tert-butoxide, magnesium perchlorate, acid chlorides, platinum, uranium hexafluoride, silver oxide, iodine heptafluoride, acetyl bromide, disulfuryl difluoride, tertachlorosilane, acetyl chloride, permanganic acid ruthenium (VIII) oxide, uranyl perchlorate, potassium dioxide.

Hazardous Decomposition Products Hazardous Polymerization

Carbon monoxide (CO), Carbon dioxide (CO₂) Hazardous polymerization does not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity:

Oral LD50

Based on Acute Toxicity Estimates (ATE), the classification criteria are not met. ATE>2,000 mg/Kg

Dermal LD50

Based on ATE, the classification criteria are not met. ATE>2,000 mg/Kg

Vapor LC50

Based on ATE, the classification criteria are not met. ATE>20 mg/L

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
(Rat, Oral) Glycerol LD50 = 12,600 mg/kg (Rat, Oral) LD50 (35% Hydrogen Peroxide) =		LD50 = 20,000 mg/kg (Rabbit, Skin)	LC50 = 20,000 ppm/10H (Rat, Inhalation) LC50 = 31,623 ppm/4H (Rat, Inhalation)
		Mild Skin Irritation (Rabbit, Skin)	LC50 = 570 mg/m3/1H (Rat, Inhalation)
		LD50 (35% Hydrogen Peroxide) = 2,000 mg/kg (Rabbit, Skin)	LC50 2,000 ppm/8H (Rat, Inhalation)
2-Propanol, 2- Methyl	LD50 = 1,743 mg/kg (Rat, Oral)	LD50 = 2,000 mg/kg (Rabbit, Skin)	LC50 10,000 ppm/4H (Rat, Inhalation)
Denatonium Benzoate	LD50 = 584 mg/kg (Rat, Oral)	Not Listed	Not Listed

Toxicologically Synergistic: Carbon tetrachloride, chloroform, bromotrichloromethane, dimethyl nitrosamine

Irritation – Irritating to eyes and skin

Sensitization – No information available

Carcinogenicity - Ethanol has been shown to be carcinogenic in long-term studies when consumed and abused as an alcoholic beverage. Ethanol is listed in the OSHA Hazard Communication Carcinogen list.

Component	CAS-No	IARC	NTP	ACGIH	OSHA
Ethyl alcohol	64-17-5	Group 1	Known	A3	X
Glycerol	56-81-5	Not listed	Not listed	Not listed	Not listed
Hydrogen Peroxide	7722-84-1	Group 3	Not listed	A3	Not listed
2-Propanol, 2- Methyl	75-65-0	Not listed	Not listed	A4	Not listed

Denatonium Benzoate 3734-33-	Not listed	Not listed	Not listed	Not listed
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IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 – Not Classifiable

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

A4 – Not Classifiable as a Human Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

X = Listed

Mutagenic Effects Hydrogen peroxide may cause genetic defects.

Teratogenicity Repeated ingestion of ethanol by pregnant mothers has been

shown to adversely affect the central nervous system of the fetus, producing a collection of effects which together constitute the fetal alcohol syndrome. These include mental and physical retardation, disturbances of learning, motor and language deficiencies, behavioral disorders, and small size

head.

STOT - single exposure Eyes, Skin, Central nervous system (CNS), Respiratory

system

STOT - repeated exposure Heart, Liver, Kidney, Blood. Long term repeated oral exposure

to ethanol may result in the development of progressive liver

injury with fibrosis.

Aspiration hazard No information available

Endocrine Disruptor InformationNo information available

Other Adverse Effects The toxicological properties have not been fully investigated

SECTION 12: ECOLOGICAL INFORMATION

Contains a substance which is: Toxic to aquatic organisms.

The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea	
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Ethyl alcohol	EC50 (72h) = 275 mg/l (Chlorella vulgaris)	Fathead minnow (Pimephales promelas) LC50 = 14,200 mg/l/96h	Photobacterium phosphoreum: EC50 = 34,634 mg/L/30 min EC50 = 35,470 mg/L/5 min	EC50 = 9,268 mg/L/48h EC50 = 10,800 mg/L/24h
Glycerol	No Data Available	No Data Available	No Data Available	No Data Available
Hydrogen Peroxide	EC50 (72h) = 2.5 mg/l	Fish LC50 = 16.4 mg/l/96h	No Data Available	No Data Available
2-Propanol, 2-Methyl	EC50 (72h) = 1000 mg/	Fathead minnow (Pimephales promelas) LC50 = 6,130 - 6,700 mg/l/96h	No Data Available	EC50 = 4,607 – 6,577 mg/L/48h
Denatonium Benzoate	No Data Available	No Data Available	No Data Available	No Data Available

Persistence and Degradability

Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation Mobility

	Component	log Pow	
I	Ethyl alcohol	-0.32	

No information available.

Mobility in the environment is likely.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Additional Information: Handle empty containers with care. Residual vapors are flammable.

SECTION 14: TRANSPORT INFORMATION

DOT

UN-Number UN1170
Proper Shipping Name Ethyl Alcohol Solution
Hazard Class
3
Packing Group II
Label Code 3

ERG Number TDG

UN-Number UN1170

Proper Shipping Name Ethyl Alcohol Solution

Hazard Class

Packing Group 3





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Label Code 3

IATA

UN-Number UN1170

Proper Shipping Name Ethyl Alcohol Solution

Hazard Class

Packing Group II
Label Code 3
ERG Code (IATA) 3L



IMDG/IMO

UN-Number UN1170

Proper Shipping Name Ethyl Alcohol Solution

Hazard Class

Packing Group II
Label Code 3
EmS Number (Fire) F-E
EmS Number (Spillage) S-D



SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Ethyl Alcohol, 160 Proof (64-17-5)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
SARA Section 311/312 Hazard Classes Fire hazard		
	Immediate (acute) health hazard	
Ethyl alcohol (64-17-5)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
Water (7732-18-5)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		

US State Regulations

U.S California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.	
U.S California - Proposition 65 - Developmental Toxicity	WARNING: This product contains chemicals known to the State of California to cause birth defects.	
State or local regulations		
U.S Massachusetts - Right To Know List U.S New Jersey - Right To Know Hazardo U.S Pennsylvania - RTK (Right to Know)		
Ethyl alcohol (64-17-5)		
U.S California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.	
U.S California - Proposition 65 - Developmental Toxicity	WARNING: This product contains chemicals known to the State of California to cause birth defects.	
Ethyl Alcohol, 160 Proof (64-17-5)		
U.S Massachusetts - Right To Know List		
U.S New Jersey - Right to Know Hazardous Substance List		
U.S Pennsylvania - RTK (Right to Know)		

Canadian Regulations

Ethyl Alcohol, 160 Proof (64-17-5)				
Listed on the Canadian DSL (Domestic Substance Listed on the Canadian IDL (Ingredient Disclosur				
YesIDL Concentration 0.1%				
WHMIS Classification Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects				
Ethyl Alcohol (64-17-5)				
Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian IDL (Ingredient Disclosure List)				
YesIDL Concentration 0.1%				
WHMIS Classification Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects				
Water (7732-18-5)				
Listed on the Canadian DSL (Domestic Substances List)				
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria			

This This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by CPR.

SECTION 16: OTHER INFORMATION

Revision Date: March 15, 2020

Revision Summary This document has been updated to comply with the US OSHA HazCom 2012

Standard, replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of

Chemicals (GHS).

SDS Provided By: Thinking Tree Spirits

88 Jackson St. Eugene, OR 97402

541-357-2211

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.