

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 04/27/2020

Reviewed on 04/27/2020

1 Identification

- **Product Identifier**
- **Trade Name: Hand Sanitizer- WHO Formulation 1**
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:**
For personal use
Satisfies FDA/WHO/CDC guidelines for Hand Sanitizer
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
E.S.E.
1111 S Central Avenue
Los Angeles, CA 90021
(213) 614-0102
- **Emergency telephone number:** (213) 614-0102

2 Hazard(s) Identification

- **Classification of the substance or mixture:**



Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

Eye Irrit. 2B H320 Causes eye irritation.

- **Label elements:**
- **Hazard pictograms:**



- **Signal word:** Danger
- **Hazard statements:**
H225 Highly flammable liquid and vapor.
H320 Causes eye irritation.
- **Precautionary statements:**

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 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.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use for extinction: CO2, powder or water spray.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

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· **Unknown acute toxicity:**

This value refers to knowledge of known, established toxicological or ecotoxicological values.

0 % of the mixture consists of component(s) of unknown toxicity.

· **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	3	Fire = 3
REACTIVITY	0	Physical Hazard = 0

· **Hazard(s) not otherwise classified (HNOC):** None known

* 3 Composition/Information on Ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of substances listed below with non-hazardous additions.

· **Dangerous Components:**

CAS: 64-17-5 RTECS: KQ 6300000	Ethanol (v/v) ⚠ Flam. Liq. 2, H225; ⚠ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	80%
CAS: 56-81-5 RTECS: MA 8050000	Glycerol	1.45%
CAS: 7722-84-1 RTECS: MX0887000	Hydrogen peroxide (v/v) ⚠ Ox. Liq. 1, H271; ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	.125%

* 4 First-Aid Measures

· **Description of first aid measures**

· **After inhalation:** Consult a doctor for complaints.

· **After skin contact:**

Wash with soap and water.

If skin irritation occurs, consult a doctor.

· **After eye contact:**

If easy to do so, remove contact lenses if worn.

If eye irritation occurs, consult a doctor.

Rinse opened eye for several minutes under running water.

· **After swallowing:**

Never give anything by mouth to an unconscious person.

Rinse mouth with water.

If swallowed and symptoms occur, consult a doctor.

· **Information for doctor** Treat symptomatically and supportively.

· **Most important symptoms and effects, both acute and delayed:** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

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* 5 Fire-Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information.
- **Special hazards arising from the substance or mixture:**
Do not use a solid water stream as it may scatter and spread fire.
Cool closed containers exposed to fire with water spray.
Flash back possible over considerable distance.
May form explosive mixtures in air.
Exposure to decomposition products may be a hazard to health.
Carbon oxides
- **Advice for firefighters**
- **Special protective equipment for firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

* 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:**
Keep away from ignition sources.
Nonsparking tools should be used.
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.
Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:		
64-17-5	Ethanol (v/v)	1,800 ppm
56-81-5	Glycerol	45 mg/m ³
7722-84-1	Hydrogen peroxide (v/v)	10 ppm
· PAC-2:		
64-17-5	Ethanol (v/v)	3300* ppm
56-81-5	Glycerol	180 mg/m ³
7722-84-1	Hydrogen peroxide (v/v)	50 ppm
· PAC-3:		
64-17-5	Ethanol (v/v)	15000* ppm
56-81-5	Glycerol	1,100 mg/m ³

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7722-84-1	Hydrogen peroxide (v/v)	100 ppm
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*** 7 Handling and Storage**

- **Handling**
- **Precautions for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool, dry place away from sparks and flame.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s):** No further relevant information available.

*** 8 Exposure Controls/Personal Protection**

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituents have no known exposure limits.

64-17-5 Ethanol (v/v)	
PEL	Long-term value: 1900 mg/m ³ , 1000 ppm
REL	Long-term value: 1900 mg/m ³ , 1000 ppm
TLV	Short-term value: 1880 mg/m ³ , 1000 ppm
56-81-5 Glycerol	
PEL	Long-term value: 15* 5** mg/m ³ mist; *total dust **respirable fraction
TLV	TLV withdrawn-insufficient data human occup. exp.

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:** Protective gloves recommended in manufacturing.
- **Material of gloves:** Not applicable.
- **Penetration time of glove material:** Not applicable.

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Trade Name: Hand Sanitizer- WHO Formulation 1**· Eye protection:**

Tightly sealed goggles

· Limitation and supervision of exposure into the environment: None*** 9 Physical and Chemical Properties****· Information on basic physical and chemical properties****· General Information****· Appearance:**

Form: Liquid
Color: Clear, transparent

· Odor: None**· Odor threshold:** Not determined.**· pH-value @ 20 °C (68 °F):** 6-7**· Change in condition**

Melting point/Melting range: Not determined.
Boiling point/Boiling range: ≥78 °C (≥172.4 °F)

· Flash point: 21 °C (69.8 °F)**· Flammability (solid, gaseous):** Not applicable.**· Ignition temperature:** ≥425 °C (≥797 °F)**· Decomposition temperature:** Not determined.**· Auto igniting:** Product is not self-igniting.**· Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.**· Explosion limits:**

Lower: ≥3.5 Vol %
Upper: ≤15 Vol %

· Vapor pressure @ 20 °C (68 °F): ≤59 hPa (≤44.3 mm Hg)**· Density @ 20 °C (68 °F):** 0.7994 g/cm³ (6.671 lbs/gal)**· Relative density:** Not determined.**· Vapor density:** Not determined.**· Evaporation rate:** Not determined.**· Solubility in / Miscibility with:****Water:** Fully miscible.**· Partition coefficient (n-octanol/water):** Not determined.**· Viscosity:**

Dynamic: Not determined.
Kinematic: Not determined.

· Solvent content:

Organic solvents: 81.5 %
VOC content: 80.00 %

· Solids content: 0.0 %

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- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:**
Flammable.
Reacts with strong oxidizing agents.
- **Conditions to avoid:** Heat, flame and ignition sources.
- **Incompatible materials:** Strong oxidizing agents.
- **Hazardous decomposition products:** No dangerous decomposition products known.

* 11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

64-17-5 Ethanol (v/v)

Oral	LD50	7,060 mg/kg (Rat) Remarks: Lungs, Thorax, or Respiration: Other changes. Carcinogenicity - Mouse - Oral Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors. Blood: Lymphomas including Hodgkin's disease. Central nervous system depression, narcosis, Damage to the heart., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Heart - Irregularities - Based on Human Evidence Central nervous system - Breathing difficulties - Based on Human Evidence Stomach - Irregularities - Based on Human Evidence
Inhalative	LC50/4 h LC50/96 hours	20,000 mg/l (Rat) 12,900-15,300 mg/l (Trout)

56-81-5 Glycerol

Oral	LD50	12,600 mg/kg (Rat)
Dermal	LD50	>10,000 mg/kg (Rabbit)
Inhalative	LC50/96 hours	>50,000 mg/l (Trout)

- **Primary irritant effect:**
- **On the skin:** No irritating effect.
- **On the eye:** Irritating effect.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
- **Carcinogenic categories:**
- **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 as to its carcinogenicity to humans
Group 4 - Probably not carcinogenic to humans

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The IARC (the International Agency for Research on Cancer) concluded that ethanol found alcoholic beverages to be Group 1 - Carcinogenic to humans. All other instances it is not consider carcinogenic.

64-17-5	Ethanol (v/v)	1
7722-84-1	Hydrogen peroxide (v/v)	3

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

* **12 Ecological Information**

· **Toxicity:**

· **Aquatic toxicity:**

64-17-5 Ethanol (v/v)

EC50 34,900 mg/l (Daphnia)

· **Persistence and degradability:** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential:** No further relevant information available.

· **Mobility in soil:** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.

· **Results of PBT and vPvB assessment:**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

· **Waste treatment methods**

· **Recommendation:**

Observe all federal, state and local environmental regulations when disposing of this material.

· **Uncleaned packaging**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

· **UN-Number:**

· **DOT, ADR/ADN, IMDG, IATA**

UN1987

· **UN proper shipping name:**

· **DOT**

Alcohols, n.o.s. (Ethanol)

· **ADR/ADN**

UN1987 ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL))

· **IMDG**

ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL))

· **IATA**

ALCOHOLS, N.O.S. (ETHANOL)

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Trade Name: Hand Sanitizer- WHO Formulation 1· **Transport hazard class(es):**· **DOT**

- **Class:** 3 Flammable liquids
- **Label:** 3

· **ADR/ADN**

- **Class:** 3 (F1) Flammable liquids
- **Label:** 3

· **IMDG, IATA**

- **Class:** 3 Flammable liquids
- **Label:** 3
- **Packing group:** II
- **DOT, ADR/ADN, IMDG, IATA** II
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Warning: Flammable liquids
- **Hazard identification number (Kemler code):** 33
- **EMS Number:** F-E,S-D
- **Stowage Category** A
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **Transport/Additional information:**
- **DOT**
- **Quantity limitations:** On passenger aircraft/rail: 5 L
On cargo aircraft only: 60 L

· **ADR/ADN**

- **Excepted quantities (EQ):** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

· **IMDG**

- **Limited quantities (LQ):** 1L
- **Excepted quantities (EQ):** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
- **UN "Model Regulation":** UN 1987 ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL)), 3, II

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*15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

- **Section 355 (extremely hazardous substances):**

7722-84-1	Hydrogen peroxide (v/v)
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- **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

- **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

- **Hazardous Air Pollutants**

None of the ingredients are listed.

- **California Proposition 65:**



WARNING: This product can expose you to chemicals including the listed chemicals which are known to the State of California to cause cancer, birth defects and/or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

- **Chemicals known to cause cancer:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**

64-17-5	Ethanol (v/v)
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- **New Jersey Right-to-Know List:**

All ingredients are listed.

- **New Jersey Special Hazardous Substance List:**

64-17-5	Ethanol (v/v)	CA, MU, TE, F3
7722-84-1	Hydrogen peroxide (v/v)	CO, MU, R3

- **Pennsylvania Right-to-Know List:**

All ingredients are listed.

- **Pennsylvania Special Hazardous Substance List:**

7722-84-1	Hydrogen peroxide (v/v)	E
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- **Carcinogenic categories:**

- **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

- **TLV (Threshold Limit Value established by ACGIH):**

64-17-5	Ethanol (v/v)	A3
7722-84-1	Hydrogen peroxide (v/v)	A3

- **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

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Trade Name: Hand Sanitizer- WHO Formulation 1**· GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms:**· Signal word: Danger****· Hazard statements:**

H225 Highly flammable liquid and vapor.

H320 Causes eye irritation.

· Precautionary statements:

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 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.

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

P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

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

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

None of the ingredients are listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.*** 16 Other Information**

This product has not been tested to determine its efficacy against viruses, e.g., COVID-19 or any coronavirus. User is solely responsible for the selection of appropriate sanitizing/disinfecting product for the setting and application.

· Date of last revision/ revision number: 04/27/2020 / 1**· Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 2: Flammable liquids – Category 2

Ox. Liq. 1: Oxidizing liquids – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· *** Data compared to the previous version altered.**

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