

**Safety Data Sheet (SDS)**

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

Issue date 03/30/2020

Reviewed on 03/30/2020

**\* 1 Identification****· Product Identifier****· Trade Name: Hand Sanitizer (World Health Organization formula)****· Relevant identified uses of the substance or mixture and uses advised against:**

This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

**· Product Description:**

For personal use  
Satisfies FDA/WHO/CDC guidelines for Hand Sanitizer

**· Details of the Supplier of the Safety Data Sheet:****· Manufacturer/Supplier:**

Caledonia Spirits  
116 Gin Lane  
Montpelier, VT 05601  
802-472-8000  
<http://caledoniaspirits.com>

**· Emergency telephone number: Poison Control: 1-800-222-1222****2 Hazard(s) Identification****· Classification of the substance or mixture:**

Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.

Eye Irrit. 2B H320 Causes eye irritation.

**· Label elements:****· Hazard pictograms:****· Signal word: Warning****· Hazard statements:**

H226 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.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P264 Wash thoroughly after handling.

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

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.

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P403+P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **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

· **Non-hazardous components:**

7732-18-5	Water, distilled water, deionized water	balance%
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· **Chemical characterization: Mixtures**

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

· **Dangerous Components:**

CAS: 64-17-5 RTECS: KQ 6300000	Ethanol ⚠ 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	3% Hydrogen peroxide (stabilized) ⚠ Ox. Liq. 1, H271; ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	0.125%

### 4 First-Aid Measures

· **Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** If skin irritation occurs, consult a doctor.

· **After eye contact:**

Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.

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

If eye irritation occurs, consult a doctor.

· **After swallowing:** If swallowed and symptoms occur, consult a doctor.

· **Information for doctor**

· **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:**  
CO<sub>2</sub>, 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:**  
Use personal protective equipment.  
Ensure adequate ventilation.  
Remove all sources of ignition.  
Evacuate personnel to safe areas.  
Keep people away from and upwind of spill/leak.  
Material can create slippery conditions.
- **Environmental precautions:**  
Dilute with plenty of water.  
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.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).  
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	1,800 ppm
56-81-5	Glycerol	45 mg/m <sup>3</sup>
7722-84-1	Hydrogen peroxide solution	10 ppm

· **PAC-2:**

64-17-5	Ethanol	3300* ppm
56-81-5	Glycerol	180 mg/m <sup>3</sup>
7722-84-1	Hydrogen peroxide solution	50 ppm

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· <b>PAC-3:</b>		
64-17-5	Ethanol	15000* ppm
56-81-5	Glycerol	1,100 mg/m <sup>3</sup>
7722-84-1	Hydrogen peroxide solution	100 ppm

### 7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**  
For personal protection see section 8.  
Keep away from heat and flame.  
Use with local exhaust ventilation.  
Avoid contact with eyes.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect from heat.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**  
Take measures to prevent the build up of electrostatic charge.  
Keep in properly labelled containers.  
Keep containers tightly closed in a dry, cool and wellventilated place.  
Store in accordance with the particular national regulations.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Protect from heat and direct sunlight.
- **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.

<b>64-17-5 Ethanol</b>	
PEL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
REL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
TLV	Short-term value: 1880 mg/m <sup>3</sup> , 1000 ppm
<b>56-81-5 Glycerol</b>	
PEL	Long-term value: 15* 5** mg/m <sup>3</sup> 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.  
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- **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.  
Avoid contact with the eyes.
- **Breathing equipment:** Not required.
- **Protection of hands:** Not required.
- **Material of gloves:** Not applicable.
- **Penetration time of glove material:** Not applicable.
- **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

· **Odor:** Slight alcohol  
Alcohol-like

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

#### · Change in condition

**Melting point/Melting range:** Not determined.

**Boiling point/Boiling range:** ≥78 °C (≥172.4 °F)

· **Flash point:** 25 °C (77 °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):** 0.8363 g/cm<sup>3</sup> (6.9789 lbs/gal)

· **Relative density:** Not determined.

· **Vapor density:** Not determined.

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- **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 %
- **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:** No dangerous reactions known.
- **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

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	20,000 mg/l (Rat)
	LC50/96 hours	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.

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· **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):**

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.

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

64-17-5	Ethanol	1
7722-84-1	Hydrogen peroxide solution	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**

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.

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### 14 Transport Information

- **UN-Number:** UN1170
- **DOT, ADR/ADN, IMDG, IATA** UN1170
- **UN proper shipping name:** Ethanol mixture
- **DOT** UN1170 ETHANOL (ETHYL ALCOHOL) mixture
- **ADR/ADN** ETHANOL (ETHYL ALCOHOL) mixture
- **IMDG** ETHANOL mixture
- **IATA**
- **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:** III
- **DOT, ADR/ADN, IMDG, IATA** Not applicable.
- **Environmental hazards:** Warning: Flammable liquids
- **Special precautions for user:** 30
- **Hazard identification number (Kemler code):** F-E,S-D
- **EMS Number:** A
- **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: 60 L  
On cargo aircraft only: 220 L

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- **ADR/ADN**
- **Excepted quantities (EQ):** Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml

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- **IMDG**
- **Limited quantities (LQ):** 5L
- **Excepted quantities (EQ):** Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml
- **UN "Model Regulation":** UN 1170 ETHANOL (ETHYL ALCOHOL) MIXTURE, 3, III

**15 Regulatory Information**

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

· <b>Section 355 (extremely hazardous substances):</b>	
7722-84-1	Hydrogen peroxide solution
· <b>Section 313 (Specific toxic chemical listings):</b>	
None of the ingredients are listed.	
· <b>TSCA (Toxic Substances Control Act):</b>	
All components have the value ACTIVE.	
· <b>Hazardous Air Pollutants</b>	
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](http://www.P65Warnings.ca.gov).

· <b>Chemicals known to cause cancer:</b>		
None of the ingredients are listed.		
· <b>Chemicals known to cause reproductive toxicity for females:</b>		
None of the ingredients are listed.		
· <b>Chemicals known to cause reproductive toxicity for males:</b>		
None of the ingredients are listed.		
· <b>Chemicals known to cause developmental toxicity:</b>		
64-17-5	Ethanol	
· <b>New Jersey Right-to-Know List:</b>		
64-17-5	Ethanol	
56-81-5	Glycerol	
7722-84-1	Hydrogen peroxide solution	
· <b>New Jersey Special Hazardous Substance List:</b>		
64-17-5	Ethanol	CA, MU, TE, F3
7722-84-1	Hydrogen peroxide solution	CO, MU, R3
· <b>Pennsylvania Right-to-Know List:</b>		
64-17-5	Ethanol	

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56-81-5	Glycerol
7722-84-1	Hydrogen peroxide solution

· **Pennsylvania Special Hazardous Substance List:**

7722-84-1	Hydrogen peroxide solution	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	A3
7722-84-1	Hydrogen peroxide solution	A3

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

None of the ingredients are listed.

· **GHS label elements**

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

· **Hazard pictograms:**



· **Signal word:** Warning

· **Hazard statements:**

H226 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.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P264 Wash thoroughly after handling.

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

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

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Date of last revision/ revision number:** 03/30/2020 / 1

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· **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  
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  
Flam. Liq. 3: Flammable liquids – Category 3  
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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