



# SAFETY DATA SHEET

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## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** Clorox Commercial Solutions® Clorox® Bleach-Free Hand Sanitizer

### Other means of identification

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended use** Hand sanitizer

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Clorox Professional Products Company  
1221 Broadway  
Oakland, CA 94612

Phone: 1-510-271-7000

### Emergency telephone number

**Emergency Phone Numbers** For Medical Emergencies call: 1-800-446-1014  
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

## 2. HAZARDS IDENTIFICATION


### Classification

This product is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Flammable liquids	Category 2
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### GHS Label elements, including precautionary statements

#### Emergency Overview

<b>Signal word</b>	<b>Danger</b>		
<b>Hazard statements</b>	Highly flammable liquid and vapor		
			
<b>Appearance</b>	Clear, colorless	<b>Physical State</b>	Thin liquid
			<b>Odor</b> Alcohol

### Precautionary Statements - Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 Keep container tightly closed.  
 Ground/bond container and receiving equipment.  
 Use explosion-proof electrical/ventilating/lighting equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Wear eye protection such as safety glasses.

### Precautionary Statements - Response

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
 In case of fire: Use dry chemical, carbon dioxide (CO<sub>2</sub>), foam, or water spray to extinguish.

### Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool.

### Precautionary Statements - Disposal

Dispose of contents in accordance with all applicable federal, state, and local regulations.

### Hazards not otherwise classified (HNOC)

Inhalation of high concentrations of vapor or mist may cause irritation of the respiratory tract, headaches, dizziness, nausea, vomiting, and malaise. Ingestion may cause central nervous system depression, gastrointestinal irritation, nausea, vomiting, and diarrhea.

### Unknown Toxicity

0.2% of the mixture consists of ingredient(s) of unknown toxicity

### Other information

May cause slight eye irritation.  
 Toxic to aquatic life with long lasting effects.

### Interactions with Other Chemicals

Can react with strong oxidizers, inorganic acids, and halogens.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %	Trade Secret
Ethanol	64-17-5	60 - 75	*
Isopropyl alcohol	67-63-0	5 - 10	*

\* The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

#### First aid measures

<b>General Advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Eye Contact</b>	Hold eye open and rinse slowly and gently with water for 15–20 minutes. If present, remove contact lenses after the first 5 minutes of rinsing, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
<b>Skin Contact</b>	Not applicable.
<b>Inhalation</b>	Move to fresh air. If breathing problems develop, call a doctor.
<b>Ingestion</b>	Drink a glassful of water. Call a doctor or poison control center.
<b>Protection of First-aiders</b>	Remove all ignition sources. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

#### Most important symptoms and effects, both acute and delayed

<b>Most Important Symptoms and Effects</b>	May cause slight eye irritation.
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#### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	Treat symptomatically.
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### 5. FIRE-FIGHTING MEASURES

#### Suitable Extinguishing Media

Dry chemical, carbon dioxide (CO<sub>2</sub>), foam, or water spray.

#### Unsuitable Extinguishing Media

Use of water spray when fighting fire may be inefficient.

#### Specific Hazards Arising from the Chemical

Alcohol flames may not be readily visible. Vapors are heavier than air and may travel to source of ignition and flash back. Vapors may form explosive mixtures with air.

#### Hazardous Combustion Products

Oxides of carbon.

#### Explosion Data

<b>Sensitivity to Mechanical Impact</b>	No.
<b>Sensitivity to Static Discharge</b>	Yes.

#### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Keep containers cool with water spray.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions**                      Ensure adequate ventilation. Use personal protective equipment as required. Eliminate all potential sources of ignition. Take precautionary measures against static discharges.

**Other Information**                         Refer to protective measures listed in Sections 7 and 8.

**Environmental precautions**

**Environmental Precautions**             Prevent entry into surface water or sanitary sewers. See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for Containment**                Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up**                Eliminate all potential sources of ignition, and ventilate area. Absorb and containerize. Do not flush into surface water or sanitary sewer system.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Handling**                                      Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin, and clothing. Do not eat, drink, or smoke when using this product.

**Conditions for safe storage, including any incompatibilities**

**Storage**                                        Store in accordance all applicable regulations and fire codes. Keep containers tightly closed in a cool, well-ventilated place away from heat, sparks, open flames, and hot surfaces.

**Incompatible Products**                 Strong oxidizers, inorganic acids, and halogens.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	IDLH: 3300 ppm 10% LEL TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

**Appropriate engineering controls**

**Engineering Measures**                    Showers  
Eyewash stations  
Ventilation systems

**Individual protection measures, such as personal protective equipment**

<b>Eye/Face Protection</b>	None required for consumer use. If splashes are likely to occur, wear safety glasses.
<b>Skin and Body Protection</b>	No special protective equipment required.
<b>Respiratory Protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Physical and Chemical Properties**

<b>Physical State</b>	Thin liquid	<b>Odor</b>	Alcohol
<b>Appearance</b>	Clear	<b>Odor Threshold</b>	No information available
<b>Color</b>	colorless		

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks/ Method</u></b>
<b>pH</b>	6 - 9	None known
<b>Melting/freezing point</b>	No data available	None known
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flash Point</b>	~21°C (closed cup)	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limits in Air</b>		
<b>Upper flammability limit</b>	No data available	None known
<b>Lower flammability limit</b>	No data available	None known
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Specific Gravity</b>	~0.84	None known
<b>Water Solubility</b>	Complete	None known
<b>Solubility in other solvents</b>	No data available	None known
<b>Partition coefficient: n-octanol/water</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known
<b>Explosive Properties</b>	Not explosive	
<b>Oxidizing Properties</b>	No data available	

**Other Information**

<b>Softening Point</b>	No data available
<b>VOC Content (%)</b>	No data available
<b>Particle Size</b>	No data available
<b>Particle Size Distribution</b>	No data available

## 10. STABILITY AND REACTIVITY

### Reactivity

Can react with strong oxidizers, inorganic acids, and halogens.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None known.

### Conditions to avoid

Keep away from heat, sparks, open flames, and hot surfaces.

### Incompatible materials

Strong oxidizers, inorganic acids, and halogens.

### Hazardous Decomposition Products

None known.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Inhalation of high concentrations of vapor or mist may cause irritation of the respiratory tract, headaches, dizziness, nausea, vomiting, and malaise.
<b>Eye Contact</b>	May cause slight irritation.
<b>Skin Contact</b>	Prolonged or repeated use may cause dryness and/or slight irritation.
<b>Ingestion</b>	Ingestion may cause central nervous system depression, gastrointestinal irritation, nausea, vomiting, and diarrhea.

#### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethanol 64-17-5	-	-	125 mg/L (Rat, 4 h)
Isopropyl alcohol 67-63-0	4.4 g/kg (Rat)	12.9 g/kg (Rabbit)	16000 (Rat, 8 h)

### Information on toxicological effects

**Symptoms** May cause slight redness and tearing of eyes.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.

**Mutagenic Effects** No information available.

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethanol 64-17-5	A3	Group 1	Known	X
Isopropyl alcohol 67-63-0	-	Group 3	-	X

**ACGIH (American Conference of Governmental Industrial Hygienists)**

A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans; Group 3 - Not Classifiable as to Carcinogenicity in Humans

**NTP (National Toxicology Program)**

Known - Known Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Reproductive Toxicity** Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.  
**Chronic Toxicity** Contains a known or suspected carcinogen. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage. Contains a known or suspected reproductive toxin. Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects. Repeated abuse can have long-term health effects.

**Target Organ Effects** Eyes, blood, central nervous system (CNS), liver, reproductive system, respiratory system.

**Aspiration Hazard** Not an aspiration hazard.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document

**ATEmix (oral)**

49.6 g/kg

**ATEmix (inhalation-dust/mist)**

184 mg/l

**ATEmix (inhalation-vapor)**

627 ATEmix

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Toxic to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Ethanol 64-17-5		LC50: 12.0 - 16.0 mL/L (96 h static) <i>Oncorhynchus mykiss</i> LC50: 13400 - 15100 mg/L (96 h flow-through) <i>Pimephales promelas</i> LC50: > 100 mg/L (96 h static) <i>Pimephales promelas</i>	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min	LC50: 9268 - 14221 mg/L (48 h ) <i>Daphnia magna</i> EC50: 10800 mg/L (24 h ) <i>Daphnia magna</i> EC50: 2 mg/L (48 h Static) <i>Daphnia magna</i>
Isopropyl alcohol 67-63-0	96h EC50: > 1000 mg/L ( <i>Desmodesmus subspicatus</i> ) 72h EC50: > 1000 mg/L ( <i>Desmodesmus subspicatus</i> )	96h LC50: = 9640 mg/L ( <i>Pimephales promelas</i> ) 96h LC50: = 11130 mg/L ( <i>Pimephales promelas</i> ) 96h LC50: > 1400000 µg/L ( <i>Lepomis macrochirus</i> )		48h EC50: 13299 mg/L
Glycerin 56-81-5		LC50: 51 - 57 mL/L (96 h static) <i>Oncorhynchus mykiss</i>		EC50: > 500 mg/L (24 h ) <i>Daphnia magna</i>

### Persistence and Degradability

No information available.

### Bioaccumulation

Chemical Name	Log Pow
Ethanol 64-17-5	-0.32
Isopropyl alcohol 67-63-0	0.05

### Other adverse effects

No information available.

## 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Dispose of in accordance with all applicable federal, state, and local regulations.

### Contaminated Packaging

Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.



## 14. TRANSPORT INFORMATION

<b><u>DOT</u></b>	Limited quantity.
<b><u>TDG</u></b>	
UN-No	UN1170
Proper Shipping Name	ETHANOL
Hazard Class	3
Packing Group	II
Description	UN1170 ETHANOL, 3, II
<b><u>ICAO</u></b>	
UN-No	UN1170
Proper Shipping Name	ETHANOL
Hazard Class	3
Packing Group	II
Description	UN1170 ETHANOL, 3, II
<b><u>IATA</u></b>	
UN-No	UN1170
Proper Shipping Name	ETHANOL
Hazard Class	3
Packing Group	II
Description	UN1170 ETHANOL, 3, II
<b><u>IMDG/IMO</u></b>	
UN-No	UN1170
Proper Shipping Name	ETHANOL
Hazard Class	3
Packing Group	II
EmS No.	F-E, S-D
Description	UN1170, ETHANOL, 3, II, FP 21C

## 15. REGULATORY INFORMATION

### Chemical Inventories

<b>TSCA</b>	All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.
<b>DSL/NDSL</b>	All components are on the DSL or NDSL.

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	Yes
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals. Ethyl alcohol is only a considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage.

Chemical Name	California Proposition 65
Ethanol 64-17-5	Developmental

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Ethanol 64-17-5		X			
Isopropyl alcohol 67-63-0	X	X	X	X	
Glycerin 56-81-5	X	X	X	X	

**International Regulations**

**Canada**

**WHMIS Hazard Class**

B2 - Flammable liquid



**16. OTHER INFORMATION**

