



# 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® Green Works® 99% Naturally Derived Glass Cleaner - Concentrate

### Other means of identification

**Synonyms** None

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

**Recommended Use** Glass cleaner concentrate for use in the Clorox® EZ Dilute™ system

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

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Flammable liquids	Category 3

### GHS Label elements, including precautionary statements

#### Emergency Overview

Signal word	Warning	
<b>Hazard Statements</b> Causes skin irritation Causes serious eye irritation Flammable liquid and vapor		
<b>Appearance</b> Clear-to- slightly-hazy, dark blue	<b>Physical State</b> Thin liquid	<b>Odor</b> Lemon

### Precautionary Statements - Prevention

Wash hands and any exposed skin thoroughly after handling.  
 Wear protective gloves such as rubber or neoprene gloves.  
 Wear eye protection such as safety glasses.  
 Use personal protective equipment as required  
 Keep away from heat, sparks, and open flames. No smoking  
 Keep container tightly closed.  
 Use explosion-proof electrical equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.

### Precautionary Statements - Response

If on skin (or hair): Take off immediately all contaminated clothing. Wash with plenty of water.  
 Specific treatment (see supplemental first aid instructions on this label).  
 If skin irritation occurs: Get medical attention.  
 Wash contaminated clothing before reuse.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 If eye irritation persists: Get medical attention.

In case of fire: Use dry chemical, carbon dioxide, foam, or water spray to extinguish.

### Precautionary Statements - Storage

Store in a cool, well-ventilated place.

**Precautionary Statements - Disposal**

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

**Hazards not otherwise classified (HNOC)**

Not applicable

**Unknown Toxicity**

6.1% of the mixture consists of ingredients of unknown toxicity

**Other information**

Harmful to aquatic life with long lasting effects.

**Interactions with Other Chemicals**

None known.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %	Trade Secret
Ethanol	64-17-5	7 - 13	*
Caprylyl/capryl oligoglucoside	68515-73-1	3 - 7	*
D-Glucopyranose, oligomeric, C10-16-alkyl glycosides	110615-47-9	1 - 5	*

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

### 4. FIRST AID MEASURES

**First aid measures****General Advice**

Show this safety data sheet to the doctor in attendance.

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

**Skin Contact**

Take off contaminated clothing. Wash with plenty of water. Get medical attention if irritation develops and persists.

**Inhalation**

Move to fresh air. If breathing is affected, get medical advice/attention.

**Ingestion**

Drink a glassful of water. Call a poison control center or doctor immediately. DO NOT induce vomiting unless told to do so by a poison control center or doctor.

**Protection of First-aiders**

Avoid contact with skin, eyes, or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

**Most important symptoms and effects, both acute and delayed****Most Important Symptoms and Effects**

Stinging and irritation of eyes. Irritation of skin.

**Indication of any immediate medical attention and special treatment needed****Notes to Physician**

Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

### Specific Hazards Arising from the Chemical

No information available.

### Explosion Data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### 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.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions** Avoid contact with skin, eyes, or clothing. Use personal protective equipment as required.

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

### Environmental precautions

**Environmental Precautions** Prevent further leakage or spillage if safe to do so. See Section 12 for 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** Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

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

### Conditions for safe storage, including any incompatibilities

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible Products** None known.

## 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>
Caprylyl/capryl oligoglucoside 68515-73-1	None	None	None
D-Glucopyranose, oligomeric, C10-16-alkyl glycosides 110615-47-9	None	None	None

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

**Eye/Face Protection**                      If splashes are likely to occur: Wear goggles or safety glasses with side shields.

**Skin and Body Protection**                      Wear rubber or neoprene gloves and protective clothing.

**Respiratory Protection**                      If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures**                              Wash hands after direct contact. Remove and wash contaminated clothing before re-use. Do not eat, drink, or smoke when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

<b>Physical State</b>	Thin liquid	<b>Odor</b>	Lemon
<b>Appearance</b>	Clear-to-slightly hazy	<b>Odor Threshold</b>	No information available
<b>Color</b>	Dark blue		

<u>Property</u>	<u>Values</u>	<u>Remarks/ Method</u>
<b>pH</b>	6.5 - 9.5	None known
<b>pH (diluted solution - 1:32)</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>	37°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 Limit 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>	~1.0	None known
<b>Water Solubility</b>	Soluble	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

No data available.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

None known.

### Incompatible materials

None known.

### Hazardous Decomposition Products

None known.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Exposure to vapor or mist may irritate respiratory tract.
<b>Eye Contact</b>	May cause eye irritation.
<b>Skin Contact</b>	May cause skin irritation.
<b>Ingestion</b>	Ingestion may cause irritation to mucous membranes and gastrointestinal tract, nausea, vomiting, and diarrhea.

#### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethanol 64-17-5	-	-	125 mg/L (Rat, 4 h)

### Information on toxicological effects

**Symptoms** May cause redness and tearing of the eyes. May cause skin redness.

### 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

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

A3 - Animal Carcinogen

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

Group 1 - Carcinogenic to Humans

**NTP (National Toxicology Program)**

Known - Known Carcinogen

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

X - Present

**Reproductive Toxicity** No information available.

**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** No information available.

**Numerical measures of toxicity - Product Information**

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

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

2.25 g/L

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Harmful 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>
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

**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**

**DOT** Not restricted per 49 CFR 173.120(a)(3) and Appendix H.

**TDG** Not restricted for rail or road shipment per TDG Regulations Part II.

**IATA** Not restricted per IATA D.G.R. Sections 3.3.1.2 and 3.3.5.

**IMDG/IMO** Not restricted per IMDG Code Page 0016 Paragraph 5.1.3.1.1.



**15. REGULATORY INFORMATION**

**International Inventories**

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

**US 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>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<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	Carcinogen Developmental

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Ethanol 64-17-5		X			

**International Regulations**

Canada

**WHMIS Hazard Class**

D2B - Toxic materials

**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	Health Hazards 2	Flammability 2	Instability 0	Physical and Chemical Hazards -
<b><u>HMIS</u></b>	Health Hazards 2	Flammability 2	Physical Hazard 0	Personal Protection B

**Prepared By** Product Stewardship  
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**Revision Note** New

**Reference** CLX124767-001/124767.001

**General 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.

**End of Safety Data Sheet**