



SAFETY DATA SHEET

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Revision Date New

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

Product identifier

Product Name Clorox Commercial Solutions® Green Works® 98% Naturally Derived Manual Pot & Pan Detergent

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Dishwashing detergent

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).

Serious eye damage/eye irritation

Category 2A

GHS Label elements, including precautionary statements

Emergency Overview

Signal word	Warning
Hazard statements Causes serious eye irritation	
	
Appearance Clear, light green	Physical State Viscous liquid
	Odor Lemon, citrus

Precautionary Statements - Prevention

Wash hands and any exposed skin thoroughly after handling
Wear eye protection/face protection such as safety glasses.

Precautionary Statements - Response

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 advice/attention.

Precautionary Statements - Storage

None

Precautionary Statements - Disposal

None

Hazards not otherwise classified (HNOC)

No information available.

Unknown Toxicity

9% of the mixture consists of ingredient(s) of unknown toxicity

Other information

Toxic to aquatic life.
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
Sodium lauryl sulfate	151-21-3	7 - 15	*
Caprylyl/capryl oligoglucoside	68515-73-1	3 - 7	*
Glycerin	56-81-5	1 - 5	*
Cocamine oxide	61788-90-7	1 - 5	*
D-Glucopyranose, oligomeric, C10-16-alkyl glycosides	110615-47-9	0.5 - 2	*
Ethanol	64-17-5	0.5 - 2	*

* 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. Get medical attention immediately if irritation persists.
Skin Contact	Rinse skin with plenty of water. If irritation persists, call a doctor.
Inhalation	Move to fresh air. If breathing is affected, call a doctor.
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.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects Stinging and irritation of eyes.

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 eyes.

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

Environmental precautions

Environmental Precautions 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 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 eyes, skin, and 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
Glycerin 56-81-5	TWA: 10 mg/m ³ mist	TWA: 15 mg/m ³ mist, total particulate TWA: 5 mg/m ³ mist, respirable fraction	-
Ethanol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³	IDLH: 3300 ppm 10% LEL TWA: 1000 ppm TWA: 1900 mg/m ³
Sodium lauryl sulfate 151-21-3	None	None	None
Caprylyl/capryl oligoglucoside 68515-73-1	None	None	None
Cocamine oxide 61788-90-7	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 safety glasses with side-shields. None required for consumer use.

Skin and Body Protection No special protective equipment required.

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 Remove and wash contaminated clothing before re-use. Avoid contact with skin, eyes, or clothing. Do not eat, drink, or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State	Viscous liquid		
Appearance	Clear	Odor	Lemon citrus
Color	Light green	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks/ Method</u>
pH	7.5 - 8.5	None known
Melting/freezing point	No data available	None known
Boiling Point/Range	No data available	None known
Flash Point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	~1.0	None known
Water Solubility	Soluble in water.	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	~1200 cP	None known
Explosive Properties	Not explosive	
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None known.

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

Inhalation

Exposure to vapor or mist may irritate respiratory tract.

Eye Contact

May cause eye irritation.

Skin Contact

Prolonged contact may cause irritation.

Ingestion

Ingestion may cause irritation to mucous membranes and gastrointestinal irritation, nausea, vomiting, and diarrhea.

Component information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Glycerin 56-81-5	-	>10 g/kg (Rabbit)	>570 mg/m ³ (Rat, 1 h)
Ethanol 64-17-5	-	-	125 mg/L (Rat, 4 h)
Sodium lauryl sulfate 151-21-3	1.3 g/kg (Rat)	0.58 g/kg (Rabbit)	>3.9 g/m ³ (Rat, 1 h)

Information on toxicological effects

Symptoms

May cause redness and tearing of the 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

*IARC: (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans
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
Chronic Toxicity**

No information available.
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 (oral)**
7.3 g/kg
- ATEmix (dermal)**
10.9 g/kg
- ATEmix (inhalation-dust/mist)**
50 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic organisms. Harmful to aquatic life with long lasting effects.

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

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 regulated

TDG Not regulated

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

Chemical 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

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

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances that are regulated 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 a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

U.S. State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals. Ethyl alcohol is only 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			
Glycerin 56-81-5	X	X	X		

International Regulations**Canada****WHMIS Hazard Class**

D2B Toxic Materials

**16. OTHER INFORMATION**

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

Prepared By Product Stewardship
23 British American Blvd.
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1-800-572-6501

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Revision Note New

Reference 1099121-A/116313.001

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