

SAFETY DATA SHEET

Issuing Date 31-Jan-2014

Revision Date 31-Jan-2014

Revision Number 0

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

GHS product identifier

Product Name CITRUS DEGREASER

Other means of identification

Product Code(s) CDEG

Synonyms CDEG

Recommended use of the chemical and restrictions on use

Recommended Use Institutional laundry detergent

Uses advised against No information available

Supplier's details

Supplier Address
Envirochem, Inc
425 Whitehead Ave
South River, NJ
08882
TEL: 732-238-6700

Emergency telephone number

Emergency Telephone Number 1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

Skin Corrosion/Irritation	Category 2
Skin Sensitization	Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word

Warning

Hazard Statements

- Causes skin irritation
- May cause an allergic skin reaction



Appearance Orange

Physical State Liquid.

Odor No information available

Precautionary Statements

Prevention

- Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Contaminated work clothing should not be allowed out of the workplace.

General Advice

- Specific treatment (see supplemental first aid instructions on this label)

Skin

- IF ON SKIN: Wash with plenty of soap and water
- Take off contaminated clothing and wash before reuse
- If skin irritation or rash occurs: Get medical advice/attention.

Storage

- None

Disposal

- Dispose of contents/container to an approved waste disposal plant.

Hazard Not Otherwise Classified (HNOC)

Not applicable

Other information

Toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms

CDEG

Chemical Name	CAS-No	Weight %	Trade secret
D-Limonene	5989-27-5	5-15	*

2-Butoxyethanol	111-76-2	5-15	*
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**The exact percentage (concentration) of composition has been withheld as a trade secret.*

4. FIRST AID MEASURES

Description of necessary first-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.
Skin Contact	Wash off with warm water and soap. Remove and wash contaminated clothing before re-use. In the case of skin irritation or allergic reactions see a physician.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
Ingestion	Drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If swallowed, seek medical attention.

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects No information available.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), Dry powder. Dry sand.

Unsuitable Extinguishing Media None

Specific Hazards Arising from the Chemical

May cause sensitization by skin contact.

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 Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Stop leak if you can do it without risk. If spilled, take caution, as material can cause surfaces to become very slippery.

Environmental Precautions

Environmental Precautions Dispose of contents/container to an approved waste disposal plant.

Methods and materials for containment and cleaning up

Methods for Containment Stop leak if you can do it without risk

Methods for Cleaning Up Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Use only in area provided with appropriate exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not eat, drink or smoke when using this product. Do not take internally. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use.

Incompatible Products Strong oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-Butoxyethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m ³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m ³ (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m ³

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields.
Skin and Body Protection Impervious gloves.
Respiratory Protection None required under normal usage. If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Appearance	Orange
Odor	No information available	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	7.5	None known
Melting Point/Range	No data available	None known
Boiling Point/Boiling Range	>100 °C / °F	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	
lower flammability limit	No data available	
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known
Relative Density	No data available	None known
Specific Gravity	1.02	None known
Water Solubility	100	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
Viscosity	No data available	None known
Flammable Properties	Not flammable	
Explosive Properties	No data available	
Oxidizing Properties	No data available	

Other information

VOC Content (%) 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

Incompatible products.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	No known effect based on information supplied.
Eye Contact	No known effect based on information supplied
Skin Contact	Causes skin irritation. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion	May be harmful if swallowed.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-Butoxyethanol	= 470 mg/kg (Rat)	= 400 mg/kg (Rabbit) = 2270 mg/kg (Rat)	= 2.21 mg/L (Rat) 4 h = 450 ppm (Rat) 4 h
D-Limonene	5000 mg/kg (Rat)	>5000 mg/kg (Rabbit)	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization No information available.

Mutagenic Effects
Carcinogenicity

No information available.
The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
D-Limonene		Group 3	-	-
2-Butoxyethanol	A3	Group 3		

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 3: Not Classifiable as to its Carcinogenicity to Humans

Reproductive Toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Aspiration Hazard

No information available.

Numerical measures of toxicity - Product

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

LD50 Oral	3485 mg/kg; Acute toxicity estimate
LD50 Dermal	6334 mg/kg; Acute toxicity estimate
Inhalation	
dust/mist	16.5 mg/L; Acute toxicity estimate
Vapor	121 mg/L; Acute toxicity estimate

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)
2-Butoxyethanol 111-76-2		LC50 96 h: = 1490 mg/L static (Lepomis macrochirus) LC50 96 h: = 2950 mg/L (Lepomis macrochirus)		EC50 24 h: 1698 - 1940 mg/L (Daphnia magna) EC50 48 h: > 1000 mg/L (Daphnia magna)
D-Limonene 5989-27-5		LC50 96 h: 0.619 - 0.796 mg/L flow-through (Pimephales promelas) LC50 96 h: = 35 mg/L (Oncorhynchus mykiss)		

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	Log Pow
2-Butoxyethanol	0.81

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Dispose of in accordance with federal, state, and local regulations

Contaminated Packaging

Do not re-use empty containers.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
D-Limonene	Toxic

14. TRANSPORT INFORMATION

DOT Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies
EINECS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
2-Butoxyethanol	111-76-2	5-15	1.0

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 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.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

"X" designates that the ingredients are listed on the state right to know list.

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
2-Butoxyethanol	X	X	X	X	X
D-Limonene	X			X	

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazard 2	Flammability 0	Instability 0	Physical and Chemical Hazards -
<u>H</u>	Health Hazard 2	Flammability 0	Physical Hazard 0	Personal Protection X
<u>MI</u>				
<u>S</u>				

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date 31-Jan-2014
Revision Date 31-Jan-2014
Revision Note Initial Release.

General Disclaimer

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet