Safety Data Sheet (SDS)

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

Printing date 01/21/2015 Reviewed on 01/16/2015

* 1 Identification

· **Product identifier**

· **Trade name: C-Clean100**
· **Product number:** 301000
· **Relevant identified uses of the substance or mixture and uses advised against**
· **Product description** Citrus Stripper Oil

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
E-Chem, LLC
4102 El Rey Rd. SE
Albuquerque, NM 87105
Phone: 505.217.2121
Fax: 505.217.3721
Email: mail@e-chem.net
Web: www.e-chem.net
· **Emergency telephone number:**
Chemtrec at 1-800-424-9300 24 Hours
Outside the U.S., call Chemtrec collect at 703-527-3887

* 2 Hazard(s) identification

· **Classification of the substance or mixture**


GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.


GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.


GHS07

Skin Irrit. 2 H315 Causes skin irritation.
STOT SE 3 H335 May cause respiratory irritation.

· **Label elements**
· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**


GHS02 GHS05 GHS07

· **Signal word** Danger

· **Hazard-determining components of labeling:**
Poly(oxy-1,2-ethanediyl), alpha-(4- 4 – 8% nonylphenyl)-omega-hydroxy-, branched
Citrus terpenes

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· ***Hazard statements***
Flammable liquid and vapor.
Causes skin irritation.
Causes serious eye damage.
May cause respiratory irritation.
· ***Precautionary statements***
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Use explosion-proof electrical/ventilating/lighting/equipment.
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area.
Wear protective gloves / eye protection / face protection.
Wear protective gloves.
Wear eye protection / face protection.
Ground/bond container and receiving equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
Specific treatment (see on this label).
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If skin irritation occurs: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
Take off contaminated clothing and wash it before reuse.
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.
· ***Unknown acute toxicity:***
80 percent of the mixture consists of ingredient(s) of unknown toxicity.
· ***Classification system:***
· ***NFPA ratings (scale 0 - 4)***

Health = 2
Fire = 2
Reactivity = 0

· ***HMIS-ratings (scale 0 - 4)***

Health = 2
Fire = 2
Reactivity = 0

· ***Other hazards*** None known

3 Composition/information on ingredients

· ***Chemical characterization: Mixtures***
· ***Description:*** Mixture of substances listed below with nonhazardous additions.

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· **Dangerous Components:**		
CAS: 94266-47-4	Citrus terpenes Flam. Liq. 3, H226; Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	70-90%
CAS: 127087-87-0 RTECS: WZ4750000	Poly(oxy-1,2-ethanediyl), alpha-(4- 4 – 8% nonylphenyl)-omega-hydroxy-, branched Eye Dam. 1, H318; STOT SE 3, H335	15-35%

*

4 First-aid measures

· ***Description of first aid measures***
· ***After inhalation:***
In case of unconsciousness, place patient securely on side position for transportation.
Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.
· ***After skin contact:***
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
· ***After eye contact:***
Remove contact lenses at once. Flush with water for at least 15 minutes. If irritation persists, seek medical attention.
· ***After swallowing:***
Seek immediate medical advice.
Do not induce vomitting.
Rinse out mouth and then drink plenty of water.
Never give anything by mouth to an unconscious person.
Do not leave victim unattended
· ***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.

5 Fire-fighting measures

· ***Extinguishing media***
· ***Suitable extinguishing agents:*** CO_2, sand, extinguishing powder. Do not use water.
· ***For safety reasons unsuitable extinguishing agents:*** Water with full jet
· ***Special hazards arising from the substance or mixture***
Combustible liquid. Vapors can travel to a source of ignition and flash back.
Explosive mixtures may occur at temperatures at or above flashpoint.
· ***Advice for firefighters***
· ***Protective equipment:***
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***
Wear protective equipment. Keep unprotected persons away.
Product is slippery when spilled.
· ***Environmental precautions:*** Do not allow to enter sewers/ surface or ground water.
· ***Methods and material for containment and cleaning up:***
Absorb with liquid-binding material (ie. sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.

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Do not flush with water or aqueous cleansing agents
Remove all sources of ignition.
Dispose contaminated material as waste according to section 13.

· ***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.

7 Handling and storage

· ***Handling:***
· ***Precautions for safe handling***
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Avoid contact with skin, eyes and clothing
Avoid breathing fume/gas/mist/vapors/spray.
· ***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:***
Product may be packaged in phenolic-lined steel containers or fluorinated plastic containers. Store in a well ventilated area with proper sprinkler/fire deterrent system. Storage temperature should not exceed the flashpoint for extended periods of time. Keep container tightly closed when not in use. Air should be excluded from partially filled containers by displacing with nitrogen or carbon dioxide. Do not cut, grind or weld on or near container; residual vapors may ignite.
· ***Information about storage in one common storage facility:*** Not required.
· ***Further information about storage conditions:***
Keep away from heat, sparks and flame. Open container slowly to release pressure caused by temperature variations. Do not allow this material to come in contact with the eyes. Avoid prolonged contact with the skin. Use in well-ventilated areas. Do not breathe vapors. Drum lining may ocassionally chip and fall to the bottom of the container; product should be filtered or strained before blending or repackaging. As with any chemical, employees should thoroughly was hand with soap and water after hansling this material.
· ***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 product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· ***Additional information:*** The lists that were valid during the creation were used as basis.

· ***Exposure controls***
· ***Personal protective equipment:***
· ***General protective and hygienic measures:***
Use adequate exhaust ventilation to prevent inhalation of product vapors.
Immediately remove all soiled and contaminated clothing.
Do not eat or drink while handling product.
Wash hands before breaks and at the end of work.

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Avoid contact with the eyes and skin.

· ***Breathing equipment:***
Not normally required. If adequate ventilation is unavailable,use NIOSH approved air-purifying respirator with an organic vapor cartridge or canister.

· ***Protection of hands:***

Protective gloves

· ***Material of gloves*** Nitrile rubber, NBR

· ***Penetration time of glove material***
The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

· ***Eye protection:*** Tightly sealed goggles

9 Physical and chemical properties

· ***Information on basic physical and chemical properties***

· ***General Information***

· ***Appearance:***

Form:	Liquid
Color:	Colorless to light yellow
· ***Odor:***	Mild citrus terpene
· ***Odor threshold:***	Not determined.
· ***pH-value:***	Not determined.
· ***Change in condition***	
Melting point/Melting range:	-140°F(-96°C), thickens at -108°F(-78°C)
Boiling point/Boiling range:	176 °C (349 °F)
· ***Flash point:***	43 °C (109 °F)
· ***Flammability (solid, gaseous):***	Not applicable.
· ***Ignition temperature:***	237 °C (459 °F)
· ***Decomposition temperature:***	Not determined.
· ***Auto igniting:***	Product is not selfigniting.
· ***Danger of explosion:***	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· ***Explosion limits:***	
Lower:	0.7 Vol %
Upper:	6.1 Vol %
· ***Vapor pressure @ 20 °C (68 °F):***	<2 mm Hg
· ***Density @ 25 °C (77 °F):***	0.838-0.843
· ***Relative density***	Not determined.
· ***Vapour density***	Not determined.
· ***Evaporation rate***	0.2 (n-Butyl Acetate =1)
· ***Solubility in / Miscibility with***	
Water:	Insoluble.

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· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**
Dynamic: Not determined.
Kinematic: Not determined.

· **Solvent content:**
VOC content: >95 % (by volume)
· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability** Stable under normal conditions.
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions**
To prevent oxidation, avoid long-term exposure to air. If storing partially filled containers, fill head space with inert gas such as nitrogen or carbon dioxide.
· **Conditions to avoid** Heat, flame and ignition sources.
· **Incompatible materials:**
Strong oxidizing agents and strong acids, including acidic clays, peroxides, halogens, vinyl chloride and iodine pentafluoride.
· **Hazardous decomposition products:**
Oxides of citrus terpenes, which can result from improper storage and handling, are know to cause skin sensitization.

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
127087-87-0 Poly(oxy-1,2-ethanediyl), alpha-(4- 4 – 8% nonylphenyl)-omega-hydroxy-, branched		
Oral	LD50	16000 mg/kg (rat)
Dermal	LD50	4490 mg/kg (rabbit) (24 hr occluded contact)

· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:**
Strong irritant with the danger of severe eye injury.
Causes serious eye irritation.
· **Other information (about experimental toxicology):**
Citrus terpenes have been shown to have low oral toxicity (LD50>5 g/kg) and low dermal toxicity (LD5>5g/kg) when tested on rabbits. Citrus terpenes also showed low toxicity by inhalation (RD50>1 g/kg) when tested on mice. The skin irritancy of limonene in guinea pigs and rabbits is considered moderate and low, respectively. Inhalation may cause irritation of the nose throat and mouth.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

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· ***Carcinogenic categories***
· ***IARC (International Agency for Research on Cancer)***
None of the ingredients are listed.

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

· ***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:*** No further relevant information available.
· ***Persistence and degradability*** Product is expected to be readily biodegradable.
· ***Behavior in environmental systems:***
· ***Bioaccumulative potential*** No further relevant information available.
· ***Mobility in soil*** Citrus terpenes volatilize rapidly
· ***Other information:***
There is no ecotoxicity data available for this product available at this time. However, a spill may produce significant toxicity to aquatic organisms and ecosystems. Some studies have shown that certain bacteria and fungi have the ability to degrade terpenes, decreasing their toxicity to fish. When spilled, this product may act like oil, causing a film, sheen emulsion or sludge at or beneath the surface of a body of water.
· ***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:***
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Observe all federal, state and local environmental regulations when disposing of this material.

· ***Uncleaned packagings:***
· ***Recommendation:*** Disposal must be made according to official regulations.

14 Transport information

· ***UN-Number***
· ***DOT, ADR, IMDG, IATA*** UN2319
· ***UN proper shipping name***
· ***DOT*** Terpene hydrocarbons, n.o.s.
· ***ADR*** UN2319 Terpene hydrocarbons, n.o.s.
· ***IMDG, IATA*** TERPENE HYDROCARBONS, N.O.S.

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· **Transport hazard class(es)**

· **DOT**

· **Class**	3 Flammable liquids
· **Label**	3

· **ADR, IMDG, IATA**

· **Class**	3 Flammable liquids
· **Label**	3
· **Packing group**	
· **DOT, ADR, IMDG, IATA**	III
· **Environmental hazards:**	
· **Marine pollutant:**	No
· **Special precautions for user**	Warning: Flammable liquids
· **EMS Number:**	F-E,S-D
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **UN "Model Regulation":**	UN2319, Terpene hydrocarbons, n.o.s., 3, III

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

127087-87-0	Poly(oxy-1,2-ethanediyl), alpha-(4- 4 – 8% nonylphenyl)-omega-hydroxy-, branched

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

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· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients are listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**
None of the ingredients are listed.

· **TLV (Threshold Limit Value established by ACGIH)**
None of the ingredients are listed.

· **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**

GHS02 GHS05 GHS07

· **Signal word** Danger

· **Hazard-determining components of labeling:**
Poly(oxy-1,2-ethanediyl), alpha-(4- 4 – 8% nonylphenyl)-omega-hydroxy-, branched
Citrus terpenes

· **Hazard statements**
Flammable liquid and vapor.
Causes skin irritation.
Causes serious eye damage.
May cause respiratory irritation.

· **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Use explosion-proof electrical/ventilating/lighting/equipment.
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area.
Wear protective gloves / eye protection / face protection.
Wear protective gloves.
Wear eye protection / face protection.
Ground/bond container and receiving equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
Specific treatment (see on this label).
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If skin irritation occurs: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.

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Take off contaminated clothing and wash it before reuse.
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

· **State Right to Know**

CAS: 94266-47-4	Citrus terpenes Flam. Liq. 3, H226; Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	70-90%
CAS: 127087-87-0 RTECS: WZ4750000	Poly(oxy-1,2-ethanediyl), alpha-(4- 4 – 8% nonylphenyl)-omega-hydroxy-, branched Eye Dam. 1, H318; STOT SE 3, H335	15-35%

All 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 preparation / last revision** 01/21/2015 / 2

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (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
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

· ***** Data compared to the previous version altered.**

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