



## 1 Identification

- **Product identifier**
- **Trade name:** LS-500
- **Article number:** LS-500
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Chemical Consultants Inc.  
1850 Wild Turkey Circle  
Corona, CA 92880  
USA  
+1 (951) 735-5511  
ncollins@ccidom.com
- **Information department:** Product safety department
- **Emergency telephone number:** INFOTRAC 1-800-535-5053

## 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.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **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:**

Nonylphenol ethoxylate

citrus terpene

- **Hazard statements**

Flammable liquid and vapor.

Causes skin irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

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- **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  
 Wear protective gloves / eye protection / face protection.  
 Wear protective gloves.  
 Wear eye protection / face protection.  
 Ground/bond container and receiving equipment.  
 Keep container tightly closed.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Wash thoroughly after handling.  
 Contaminated work clothing must not be allowed out of the workplace.  
 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).  
 Wash contaminated clothing before reuse.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.  
 Take off contaminated clothing and wash it before reuse.  
 Store in a well-ventilated place. Keep cool.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

## 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

108-32-7	propylene carbonate	10-20%
	Nonylphenol ethoxylate	10-20%
112-34-5	2-(2-butoxyethoxy)ethanol	10-20%
94266-47-4	citrus terpene	1-10%

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106-65-0 dimethyl succinate

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1-5%

## 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**  
Supply fresh air.  
*In case of unconsciousness place patient stably in side position for transportation.*
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **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<sub>2</sub>, 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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
*Wear protective equipment. Keep unprotected persons away.*
- **Environmental precautions:** For large spills: Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
*Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents*
- **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.  
Open and handle receptacle with care.  
Prevent formation of aerosols.*
- **Information about protection against explosions and fires:**  
*Keep ignition sources away - Do not smoke.  
Protect from heat.*

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Protect against electrostatic charges.

Keep respiratory protective device available.

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

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:**

Keep receptacle tightly sealed.

Protect from heat and direct sunlight.

· **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 item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

**112-34-5 2-(2-butoxyethoxy)ethanol**

TLV Long-term value: 67.5\* mg/m<sup>3</sup>, 10\* ppm

\*Inhalable fraction and vapor

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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## · Eye protection:



Tightly sealed goggles

## 9 Physical and chemical properties

## · Information on basic physical and chemical properties

## · General Information

## · Appearance:

Form:	Fluid
Color:	According to product specification
Odor:	Characteristic
Odour threshold:	Not determined.

· pH-value: Not determined.

## · Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 99 °C (> 210 °F)

· Flash point: 51 °C (124 °F)

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 225 °C (437 °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:	0.9 Vol %
Upper:	5.9 Vol %

· Vapor pressure at 20 °C (68 °F): 23 hPa (17 mm Hg)

· Density at 20 °C (68 °F): 1.034 g/cm<sup>3</sup> (8.629 lbs/gal)

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

## · Solubility in / Miscibility with

Water: Fully miscible.

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

## · Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

## · Solvent content:

VOC content: 460.0 g/l / 3.84 lb/gl

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· **Other information** No further relevant information available.

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

**94266-47-4 citrus terpene**

Oral	LD50	>5000 mg/kg (rabbit)
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Dermal	LD50	>5000 mg/kg (rabbit)
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· **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** Sensitization possible through skin contact.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

· **Carcinogenic categories**

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

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

**94266-47-4 citrus terpene**

EC50 (static)	0.36 mg/kg (daphnia)
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- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

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- **Additional ecological information:**
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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:**  
Dispose of content and/or container in accordance with local, regional, national and/or international regulations.
- **Uncleaned packagings:**
- **Recommendation:**  
Dispose of content and/or container in accordance with local, regional, national and/or international regulations

## 14 Transport information

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT</b></li> <li>· <b>IMDG, IATA</b></li> </ul>                                       | <p style="text-align: center;">NOT DOT REGULATED FOR DOMESTIC GROUND<br/>TRANSPORTATION<br/>UN1993</p>                       |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>IMDG, IATA</b></li> </ul>   | <p style="text-align: center;">FLAMMABLE LIQUID, N.O.S. (citrus terpene)</p>   |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>IMDG, IATA</b></li> </ul>  | <div style="text-align: center;">  </div> |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>  | <p style="text-align: center;">3 Flammable liquids<br/>3</p>   |
| <ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>IMDG, IATA</b></li> </ul>   | <p style="text-align: center;">III</p>   |
| <ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> </ul>   | <p style="text-align: center;">No</p>  |
| <ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>Danger code (Kemler):</b></li> <li>· <b>EMS Number:</b></li> </ul> | <p style="text-align: center;">Warning: Flammable liquids<br/>30<br/>F-E,S-E</p>   |
| <ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul>                            | <p style="text-align: center;">Not applicable.</p>   |

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· **Transport/Additional information:**

· **IMDG**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN1993, Flammable liquids, n.o.s. (citrus terpene), 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 is listed.

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

112-34-5 | 2-(2-butoxyethoxy)ethanol

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

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is 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

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- **Hazard-determining components of labeling:**

Nonylphenol ethoxylate  
citrus terpene

- **Hazard statements**

Flammable liquid and vapor.  
Causes skin irritation.  
Causes serious eye damage.  
May cause an allergic skin reaction.

- **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  
Wear protective gloves / eye protection / face protection.  
Wear protective gloves.  
Wear eye protection / face protection.  
Ground/bond container and receiving equipment.  
Keep container tightly closed.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Wash thoroughly after handling.  
Contaminated work clothing must not be allowed out of the workplace.  
**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).  
Wash contaminated clothing before reuse.  
**If skin irritation or rash occurs:** Get medical advice/attention.  
**In case of fire:** Use for extinction: CO<sub>2</sub>, powder or water spray.  
Take off contaminated clothing and wash it before reuse.  
Store in a well-ventilated place. Keep cool.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing SDS:** Environment protection department.

- **Contact:** Mr. Collins

- **Date of preparation / last revision** 07/01/2015 / -

- **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)  
IMDG: International Maritime Code for Dangerous Goods  
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

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*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*  
*Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1*  
*Skin Sens. 1: Sensitisation - Skin, Hazard Category 1*

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