SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

**Trade name:** ECOS Orange Plus Concentrate

**Description / Product Code:** 9702

**Registration number:** Substances contained in the mixture have already (pre)-registered by the suppliers.

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

**Application of the substance / the mixture:**

Cleaning Product

Surface cleaner

1.3 Details of the supplier of the safety data sheet

**Manufacturer/Supplier:**

Venus Labs/dba Earth Friendly Products

111. S Rohlwing Rd Addison, IL 60101

Phone: 800-451-9304

Chemtrec: 800-424-9300

1.4 Emergency telephone number:

Emergency telephone number: 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

**Classification according to Regulation EC No 1272/2008 CLP:**

GHS05 corrosion

**Eye Dam:** H318 Causes serious eye damage:

**Aquatic Chronic 3:** H412 Harmful to aquatic life with long last effect.

2.2 Label elements

**Labelling according to Regulation EC No 1272/2008 CLP:**

The product is classified and labelled according to the CLP regulation.

**Hazard pictograms:**

GHS05

**Signal word:** Danger

**Hazard-determining components of labelling:**

D-Glucopyranose, oligomers, decyl octyl glycosides

(Contd. on page 2)
Hazard statements:
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
P102 Keep out of reach of children.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:
National Poisoning Centre
EUH208 Contains Limonene, Citrus spp.. May produce an allergic reaction.

2.3 Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
SECTION 4: First aid measures

4.1 Description of first aid measures

General information:
Take affected persons out into the fresh air. Seek immediate medical advice.

After inhalation:
Supply fresh air and to be sure call for a doctor. In case of unconsciousness place patient stably in side position for transportation. Seek medical treatment in case of complaints.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact:
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs. Avoid strong water jet-risk of cornea damage, consult a doctor.

After swallowing:
Drink plenty of water and provide fresh air. Call for a doctor immediately. Seek immediate medical advice. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray.

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

5.3 Advice for firefighters

Protective equipment:
Self contained breathing apparatus and full protective clothing must be worn in case of fire.

Additional information
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Keep unprotected persons away. Wear protective clothing.

6.1.2 For emergency responders

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust, silica gel). Use neutralising agent. Dispose contaminated material as waste according to item 13. Send for recovery or disposal in suitable receptacles.

6.4 Reference to other sections:

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment.
SECTION 7: Handling and storage

7.1 Precautions for safe handling: Open and handle receptacle with care.

7.2 Conditions for safe storage, including any incompatibilities:

Storage: Store in cool, dry conditions in well sealed receptacles.

Requirements to be met by storerooms and receptacles: Store in a cool location.

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

Further information about storage conditions:
Keep container tightly sealed.
Store under lock and key and with access restricted to technical experts or their assistants only.
Store under lock and key and out of the reach of children.

7.3 Specific end use(s): No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:

Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5 ethanol</td>
<td>Long-term value: 950 mg/m³, 1000 ppm</td>
</tr>
</tbody>
</table>

DNELs:
Ethanol cas number: 64-17-5
Workers long-term exposure systemic effects via inhalation route: 950 mg/m³
Workers acute/short term exposure systemic effects: 1900 mg/m³
Workers systemic effects long-term exposure via dermal route: 343 mg/kg bw/day
General Population systemic effects long-term exposure via inhalation route: 114 mg/m³
General Population local effects acute/short term exposure via inhalation route: 950 mg/m³
General Population systemic effects long term exposure via dermal route: 206 mg/kg bw/day
General Population systemic effects long term exposure via oral route: 87 mg/kg bw/day

PNECs:
Ethanol cas number: 64-17-5
Freshwater: 0.96 mg/l
Marine water: 0.79 mg/l
Intermittent releases: 2.75 mg/l
STP: 580 mg/l
Sediment (freshwater): 3.6 mg/kg sediment dw
Sediment (marine water): 2.9
Soil: 0.63 mg/kg soil dw

DNEL Workers Long term exposure local effects:
Ethanol (CAS 64-17-5)
Inhalation: 1900 mg/m³

DNEL Workers Long term exposure systemic effects:
Ethanol (CAS 64-17-5)
Inhalation: 950 mg/m³
Skin Contact: 343 mg/kg bw/day

See Section 13 for disposal information.
Trade name: ECOS Orange Plus Concentrate

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:
- Form: Liquid
- Colour: Not determined
- Odour: Characteristic
- Odour threshold: Not determined
- pH value: 4.00 - 5.10
- Melting point/freezing point: Not determined

DNEL consumers Acute/short term exposure Local effects
Ethanol (CAS 64-17-5)
Inhalation: 950 mg/m³

DNEL Consumers Long-term exposure systemic effects
Ethanol (CAS 64-17-5)
Inhalation: 114 mg/m³
Skin Contact: 206 mg/kg bw/day

8.2 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.
Avoid contact with the eyes.

Respiratory protection: Not required.

Protection of hands:
- Protective gloves

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.
The determined penetration times according to EN 374 part III are not performed under practical conditions.
Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

Eye protection:
- Tightly sealed goggles

Body protection:
- Protective work clothing
SECTION 10: Stability and reactivity

10.1 Reactivity Stable under normal conditions
10.2 Chemical stability Material is stable under normal conditions.
10.3 Possibility of hazardous reactions No dangerous reactions known.
10.4 Conditions to avoid No further relevant information available.
10.5 Incompatible materials No further relevant information available.
10.6 Hazardous decomposition products No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity Based on available data, the classification criteria are not met.
Trade name: ECOS Orange Plus Concentrate

LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

<table>
<thead>
<tr>
<th>route</th>
<th>LD50 (mg/kg) (rat)</th>
<th>LC50/4h (vapour) (mg/kg) (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>63636</td>
<td>20000</td>
</tr>
</tbody>
</table>

64-17-5 ethanol

<table>
<thead>
<tr>
<th>route</th>
<th>LD50 (mg/kg) (rat)</th>
<th>LC50/4h (vapour) (mg/kg) (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>7060</td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>20000</td>
<td></td>
</tr>
</tbody>
</table>

122-99-6 2-Phenoxyethanol

<table>
<thead>
<tr>
<th>route</th>
<th>LD50 (mg/kg) (rat)</th>
<th>LD50 (mg/kg) (rabbit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1260</td>
<td>5000</td>
</tr>
<tr>
<td>Dermal</td>
<td>5000</td>
<td>27</td>
</tr>
</tbody>
</table>

5989-27-5 Limonene

<table>
<thead>
<tr>
<th>route</th>
<th>LD50 (mg/kg) (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>4400</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation Based on available data, the classification criteria are not met.
Serious eye damage/irritation
Causes serious eye damage.
Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
Germ cell mutagenicity Based on available data, the classification criteria are not met.
Carcinogenicity Based on available data, the classification criteria are not met.
Reproductive toxicity Based on available data, the classification criteria are not met.
STOT-single exposure Based on available data, the classification criteria are not met.
STOT-repeated exposure Based on available data, the classification criteria are not met.
Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity:
Ethanol, cas: 64-17-5
Fish toxicity LC50:> 10000 mg / l
Daphnia toxicity, CEE0:> 7800 mg / l
Bacterial toxicity (Ps putida) CEE0:> 6500 mg / l
Algal toxicity (SC. Quadricauda), CEE0:> 5000 mg / l
Algal toxicity (M. Acruginosa), CEE0:> 1450 mg / l

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

Ecotoxicological effects:
Remark: Harmful to fish
Additional ecological information:

General notes:
Must not reach sewage water or drainage ditch undiluted or unneutralised.
The product contains materials that are harmful to the environment.
Harmful to aquatic organisms

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
**Trade name:** ECOS Orange Plus Concentrate

### 12.6 Other adverse effects
No further relevant information available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

**Recommendation**

Dispose according to National Regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.

**Uncleaned packaging:**

**Recommendation:**

Disposal must be made according to official regulations.

Packaging may be reused or recycled after cleaning.

### SECTION 14: Transport information

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>ADR, ADN, IMDG, IATA</th>
<th>Void</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>ADR, ADN, IMDG, IATA</td>
<td>Void</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class</th>
<th>ADR, ADN, IMDG, IATA</th>
<th>Void</th>
</tr>
</thead>
</table>

| UN "Model Regulation": | Void |

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH Regulation 1907/2006/EC

Regulation (EU) 2015/830

CLP Regulation 1272/2008/EC

Constituents of the mixture that fall within the scope of REACH Regulation 1907/2006/EC, have been (pre)-registered.

Directive 98/24/EC on the protection of health and safety of workers from the risks related to chemicals agents at work.
**Safety Data Sheet**

complying with Regulation 1907/2006/EC (REACH Regulation),
EU 2015/830 and Regulation No 1272/2008/EC (CLP)

Printing date: 16.05.2017  
Version number: 2  
Revision: 16.05.2017

<table>
<thead>
<tr>
<th><strong>Trade name:</strong></th>
<th>ECOS Orange Plus Concentrate</th>
</tr>
</thead>
</table>

**Council Directive 94/33/EC on the protection of young people at work, as amended.**  
**Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding, as amended**

**Directive 2012/18/EU**  
**Named dangerous substances - ANNEX I** None of the ingredients is listed.  
**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

**National regulations:**

**Other regulations, limitations and prohibitive regulations**

<table>
<thead>
<tr>
<th><strong>Substances of very high concern (SVHC) according to REACH, Article 57</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>It doesn't contain substances of very high concern (SVHC).</td>
</tr>
</tbody>
</table>

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

### SECTION 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.

**Relevant phrases**

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

**Training hints**

Suitable training on safety in handling, storing and converting the product should be given to the employees based on all the existing information.

**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
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- 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)
- DNEL: Derived No-Effect Level (REACH)
- PNEC: Predicted No-Effect Concentration (REACH)
- LC50: Lethal concentration, 50 percent
Trade name: ECOS Orange Plus Concentrate

LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3