

## Safety Data Sheet

Issue date: 08/19/2015

v 1

Revision Date: 08/19/2015

## 1 Identification

- **Product identifier**

- **Trade name: TerraDiesel Fuel Treatment**

- **Part number:** 201245, 201248

- **Application of the substance / the mixture** diesel fuel additive

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

- Terraclean, division of, CPS Products Canada Ltd.

- 1324 Blundell Road

- Mississauga, ON, L4Y 1M5

- Canada

- Phone: (905) 615-8620

- **Emergency telephone number:**

- CHEMTREC International +1 (703) 527-3887 (outside the US), 1-800-424-9300 (in the US) 24 hr

## 2 Hazard(s) identification

Classified according to the criteria of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), OSHA Hazardous Communication Standard (29 CFR 1910.1200) and the Canadian Controlled Products Regulations.

- **Classification of the substance or mixture**

Flam. Liq. 4 H227 Combustible liquid.

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

- **Label elements**

- **GHS label elements**

- The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS07

- **Signal word** Warning

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

- 2-butoxyethanol

- 2-ethylhexan-1-ol

- **Hazard statements**

- Combustible liquid.

- Harmful if swallowed.

- Harmful in contact with skin.

- Harmful if inhaled.

- Causes skin irritation.

- Causes serious eye irritation.

- **Precautionary statements**

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

- Wear protective gloves/protective clothing/eye protection/face protection.

(Contd. on page 2)

## Safety Data Sheet

Issue date: 08/19/2015

v 1

Revision Date: 08/19/2015

**Trade name: TerraDiesel Fuel Treatment**

(Contd. of page 1)

Call a poison center/doctor if you feel unwell.

If eye irritation persists: Get medical advice/attention.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**3 Composition/information on ingredients**· **Chemical characterization: Mixtures**

- **Description:** Mixture: consisting of the following hazardous components.

· **Chemical components:**

111-76-2	2-butoxyethanol Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Flam. Liq. 4, H227	50-100%
104-76-7	2-ethylhexan-1-ol Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Flam. Liq. 4, H227	1-≤2.5%
112-80-1	oleic acid, pure Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	1-≤2.5%
27247-96-7	2-ethylhexyl nitrate Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Flam. Liq. 4, H227; Aquatic Acute 2, H401	0.1-≤2.5%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

**4 First-aid measures**· **Description of first aid measures**· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

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 cautiously with water. Remove contact lenses, if present and easy to do. Get medical attention if eye irritation develops or persists.

· **After swallowing:** Do not induce vomiting; immediately call for medical help.· **Information for doctor:**· **Most important symptoms and effects, both acute and delayed**

Headache

Unconsciousness

Nausea

May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. Repeated exposure to this material can result in absorption through skin causing significant health hazard.

Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Harmful if swallowed. May be fatal if swallowed and enters airways. Swallowing a small quantity of this material will result in serious health hazard.

May cause respiratory tract irritation.

(Contd. on page 3)

NA

## Safety Data Sheet

Issue date: 08/19/2015

v 1

Revision Date: 08/19/2015

Trade name: **TerraDiesel Fuel Treatment**

(Contd. of page 2)

· **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>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** See section 10 for additional information.
- **Advice for firefighters**
  - **Protective equipment:** Mouth respiratory protective device.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** No special measures required.
- **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.
- **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.  
Personal protective equipment must be worn. Avoid contact with skin, eyes or clothing.
  - **Information about protection against explosions and fires:**  
Keep away from ignition sources and high temperature materials.
- **Conditions for safe storage, including any incompatibilities**
  - **Storage:**
    - **Requirements to be met by storerooms and receptacles:**  
See section 10 for incompatible materials.
    - **Information about storage in one common storage facility:**  
Store at temperatures not exceeding 49 °C/120°F.
    - **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Keep from freezing.
- **Specific end use(s)** No further relevant information available.

NA

(Contd. on page 4)

## Safety Data Sheet

Issue date: 08/19/2015

v 1

Revision Date: 08/19/2015

Trade name: TerraDiesel Fuel Treatment

(Contd. of page 3)

## 8 Exposure controls/personal protection

### · Control parameters

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

#### 111-76-2 2-butoxyethanol (50-100%)

PEL (USA)	TWA: 240 mg/m <sup>3</sup> , 50 ppm Skin
REL (USA)	TWA: 24 mg/m <sup>3</sup> , 5 ppm Skin
TLV (USA)	TWA: 97 mg/m <sup>3</sup> , 20 ppm BEI
EL (Canada)	TWA: 20 ppm
EV (Canada)	TWA: 20 ppm Skin

#### · Ingredients with biological limit values:

#### 111-76-2 2-butoxyethanol (50-100%)

BEI (USA)	200 mg/g creatinine Medium: urine Time: end of shift Parameter: Butoxyacetic acid with hydrolysis
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· **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.  
Avoid contact with the eyes and skin.

##### · Breathing equipment:

Not necessary if room is well-ventilated.  
Use suitable respiratory protective device only when aerosol or mist is formed.

##### · Protection of hands:



Chemical resistant protective gloves

##### · Eye protection:



Safety glasses. If potential for splash or mist exists, wear chemical goggles or faceshield.

## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · General Information

##### · Appearance:

· Form:	Liquid
· Color:	Amber colored
· Odor:	Sweetish

(Contd. on page 5)

NA

## Safety Data Sheet

Issue date: 08/19/2015

v 1

Revision Date: 08/19/2015

## Trade name: TerraDiesel Fuel Treatment

(Contd. of page 4)

· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	171 °C
· Flash point:	63 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	240 °C
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
· Lower:	1.1 Vol %
· Upper:	10.6 Vol %
· Vapor pressure at 20 °C:	1.2 hPa
· Density at 20 °C:	0.899 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
· Water at 20 °C:	1 g/l
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
· Dynamic:	Not determined.
· Kinematic:	Not determined.
· Solvent content:	
· Organic solvents:	97.0 %
· Other information	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:**  
Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Heat, open flames, sparks.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** May include, and are not limited to: oxides of carbon.

NA

(Contd. on page 6)

## Safety Data Sheet

Issue date: 08/19/2015

v 1

Revision Date: 08/19/2015

Trade name: TerraDiesel Fuel Treatment

(Contd. of page 5)

**11 Toxicological information**

## · Information on toxicological effects

## · Acute toxicity:

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

**ATE (Acute Toxicity Estimates)**

Oral	LD50	490 mg/kg
Dermal	LD50	418 mg/kg
Inhalative	LC50/4 h	2.31 mg/l

**111-76-2 2-butoxyethanol**

Oral	LD50	470 mg/kg (rat)
Dermal	LD50	400 mg/kg (rab)
Inhalative	LC50/4 h	2.2 mg/l (rat)

**104-76-7 2-ethylhexan-1-ol**

Oral	LD50	2049 mg/kg (rat)
Dermal	LD50	1970 mg/kg (rabbit)

**112-80-1 oleic acid, pure**

Oral	LD50	74000 mg/kg (rat)
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**27247-96-7 2-ethylhexyl nitrate**

Oral	LD50	500 mg/kg (ATE)
Dermal	LD50	1100 mg/kg (ATE)
Inhalative	LC50/4 h	11 mg/l (ATE)

## · Primary irritant effect:

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Inhalation:** May cause respiratory tract irritation.
- **Ingestion:** May cause gastrointestinal irritation, nausea, vomiting, diarrhea.

## · Additional toxicological information:

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

Harmful  
Irritant

## · Carcinogenic categories

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

111-76-2	2-butoxyethanol	3
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## · NTP (National Toxicology Program)

None of the ingredients is listed.

## · OSHA-Ca (Occupational Safety &amp; Health Administration)

None of the ingredients is listed.

**12 Ecological information**

## · Toxicity

## · Aquatic toxicity:

**111-76-2 2-butoxyethanol**

EC50 (48 h)	>1000 mg/L (daphnia)
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(Contd. on page 7)

-NA

Safety Data Sheet

Issue date: 08/19/2015

v 1

Revision Date: 08/19/2015


**Trade name: TerraDiesel Fuel Treatment**

	(Contd. of page 6)
LC50 (96 h) (static)	1490 mg/l (Lepomis macrochirus)
<b>112-80-1 oleic acid, pure</b>	
LC50 (96 h)	205 mg/l (fish)
<ul style="list-style-type: none"> <li>· <b>Persistence and degradability</b> No further relevant information available.</li> <li>· <b>Behavior in environmental systems:</b> <ul style="list-style-type: none"> <li>· <b>Bioaccumulative potential</b></li> </ul> </li> </ul>	
<b>112-80-1 oleic acid, pure</b>	
Bioaccumulation	LogPow 7.73 (-) (potential high)
<ul style="list-style-type: none"> <li>· <b>Mobility in soil</b> No further relevant information available.</li> <li>· <b>Additional ecological information:</b> <ul style="list-style-type: none"> <li>· <b>General notes:</b> Not known to be hazardous to water. Water hazard class 1 (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.</li> </ul> </li> <li>· <b>Results of PBT and vPvB assessment</b> <ul style="list-style-type: none"> <li>· <b>PBT:</b> Not applicable.</li> <li>· <b>vPvB:</b> Not applicable.</li> </ul> </li> <li>· <b>Other adverse effects</b> No further relevant information available.</li> </ul>	

**13 Disposal considerations**

- **Waste treatment methods**
  - **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

<ul style="list-style-type: none"> <li>· <b>UN-Number</b> <ul style="list-style-type: none"> <li>· DOT, IMDG, IATA</li> <li>· TDG</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>UN2810</li> <li>UN2810</li> </ul>
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b> <ul style="list-style-type: none"> <li>· DOT</li> <li>· TDG</li> <li>· IMDG, IATA</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Toxic, liquids, organic, n.o.s. (2-butoxyethanol)</li> <li>Toxic, liquids, organic, n.o.s. (2-butoxyethanol)</li> <li>TOXIC LIQUID, ORGANIC, N.O.S. (2-butoxyethanol)</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b> <ul style="list-style-type: none"> <li>· DOT</li> </ul> </li> </ul>	
	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	<ul style="list-style-type: none"> <li>6.1 Toxic substances</li> <li>6.1</li> </ul>

(Contd. on page 8)

Safety Data Sheet


Issue date: 08/19/2015

v 1

Revision Date: 08/19/2015

**Trade name: TerraDiesel Fuel Treatment**

(Contd. of page 7)

<ul style="list-style-type: none"> <li>· <b>TDG</b></li> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	<p>6.1 Toxic Substances 6.1</p>
<ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>	
	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	<p>6.1 Toxic substances 6.1</p>
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, IMDG, IATA</b></li> <li>· <b>TDG</b></li> </ul>	<p>III III</p>
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> </ul>	<p>Not applicable.</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>Warning: Toxic substances 60 F-A,S-A</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>Not applicable.</p>
<ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> </ul>	
<ul style="list-style-type: none"> <li>· <b>ADR</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	<p>Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	<p>5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	<p>UN 2810 TOXIC, LIQUIDS, ORGANIC, N.O.S. (2-BUTOXYETHANOL), 6.1, III</p>

**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):**  
111-76-2 | 2-butoxyethanol

(Contd. on page 9)



Safety Data Sheet

Issue date: 08/19/2015

v 1

Revision Date: 08/19/2015

**Trade name: TerraDiesel Fuel Treatment**

(Contd. of page 8)

**· 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)**  
111-76-2 2-butoxyethanol NL

**· TLV (Threshold Limit Value established by ACGIH)**  
111-76-2 2-butoxyethanol A3

**· NIOSH-Ca (National Institute for Occupational Safety and Health)**  
None of the ingredients is listed.

**· Canadian substance listings:**

**· Canadian Domestic Substances List (DSL)**  
All ingredients are listed.

**· Canadian Ingredient Disclosure list (limit 0.1%)**  
None of the ingredients is listed.

**· Canadian Ingredient Disclosure list (limit 1%)**  
111-76-2 2-butoxyethanol  
104-76-7 2-ethylhexan-1-ol  
112-80-1 oleic acid, pure

**· GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

**· Hazard pictograms**



GHS07

**· Signal word** Warning

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

- 2-butoxyethanol
- 2-ethylhexan-1-ol

**· Hazard statements**

- Combustible liquid.
- Harmful if swallowed.
- Harmful in contact with skin.
- Harmful if inhaled.
- Causes skin irritation.
- Causes serious eye irritation.

(Contd. on page 10)

## Safety Data Sheet

Issue date: 08/19/2015

v 1

Revision Date: 08/19/2015

**Trade name: TerraDiesel Fuel Treatment**

(Contd. of page 9)

**Precautionary statements**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 Call a poison center/doctor if you feel unwell.  
 If eye irritation persists: Get medical advice/attention.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

**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**

H227 Combustible liquid.  
 H302 Harmful if swallowed.  
 H312 Harmful in contact with skin.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H335 May cause respiratory irritation.  
 H401 Toxic to aquatic life.  
 H411 Toxic to aquatic life with long lasting effects.

**Contact:** Engineering Department

**Issue Date** August 19, 2015

**Revision Changes:** v 1.0 - original SDS release (August 19, 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  
 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)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 Flam. Liq. 4: Flammable liquids, Hazard Category 4  
 Acute Tox. 4: Acute toxicity, Hazard Category 4  
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
 Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A  
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3  
 Aquatic Acute 2: Hazardous to the aquatic environment - AcuteHazard, Category 2  
 Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

NA