

## Safety Data Sheet

Issue date: 05.10.2017

v 3

Last Revision Date: 06.10.2015

## 1 Identification

- **Product identifier**

- **Trade name: TerraDiesel™ Engine Tune**

- **Part number:** 201215

- **Application of the substance / the mixture** diesel injector cleaner 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

- Tel: (905) 615-8620

- **email of person responsible:** customerservice@terraclean.net

- **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

- **Classification of the substance or mixture**

Flam. Liq. 3 H226 Flammable liquid and vapor.

Muta. 1B H340 May cause genetic defects.

Carc. 1B H350 May cause cancer.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

- **Label elements**

- **GHS label elements**

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

- **Hazard pictograms**



GHS02 GHS08

- **Signal word** Danger

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

- Solvent naphtha (petroleum), light arom.

- Solvent naphtha (petroleum), heavy arom.

- **Hazard statements**

- Flammable liquid and vapor.

- May cause genetic defects.

- May cause cancer.

- May be fatal if swallowed and enters airways.

- **Precautionary statements**

- Obtain special instructions before use.

- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

- Use only outdoors or in a well-ventilated area.

- Use personal protective equipment as required.

- Call a poison center/doctor if you feel unwell.

- Do NOT induce vomiting.

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In case of fire: Use for extinction: CO<sub>2</sub>, sand, extinguishing powder.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents in accordance with local regulations.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

**3 Composition/information on ingredients**

- **Chemical characterization: Mixtures**

- **Chemical components:**

64742-95-6	Solvent naphtha (petroleum), light arom.	25-50%
64742-94-5	Solvent naphtha (petroleum), heavy arom.	25-50%
108-11-2	4-methylpentan-2-ol	<10%
111-76-2	2-butoxyethanol	<10%

- **Additional information:** For the wording of the listed hazard 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.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation continues, consult a doctor.

- **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.

A person vomiting while lying on their back should be turned onto their side.

Rinse mouth with water.

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

If conscious, give small quantities of water to drink.

Stop if victim feels sick.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed**

May cause eye irritation. Symptoms may include discomfort or pain, excessive blinking and tear production, with possible redness and swelling.

Headache

Dizziness

Disorientation

Coughing

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Nausea

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.

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.

See section 11.

- **Indication of any immediate medical attention and special treatment needed**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

**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

- **Special hazards arising from the substance or mixture** See section 10 for additional information.

- **Advice for firefighters**

- **Protective equipment:**

Wear full protective firegear including self-containing breathing apparatus operated in the positive pressure mode with full facepiece, coat, pants, gloves and boots. Do not use a water jet.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Particular danger of slipping on leaked/spilled product.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Do not touch or walk through spilled material.

- **Environmental precautions:**

Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

Prevent from spreading (e.g. by damming-in or oil barriers).

- **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.

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.

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**7 Handling and storage**· **Handling:**· **Precautions for safe handling**

- Open and handle receptacle with care.
- Use only in well ventilated areas.
- Avoid contact with the eyes and skin.
- Avoid contact with clothing.
- Avoid splashes or spray in enclosed areas.
- Keep in the original containers.
- See section 8 for personal protective equipment.
- Do not reuse container.

· **Information about protection against explosions and fires:**

- Keep ignition sources away - Do not smoke.
- Protect from heat.
- 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:**

- See section 10 for incompatible materials.

· **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**· **Control parameters**· **Components with limit values that require monitoring at the workplace:****111-76-2 2-butoxyethanol (2.5-10%)**

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

**108-11-2 4-methylpentan-2-ol (2.5-10%)**

PEL (USA)	TWA: 100 mg/m <sup>3</sup> , 25 ppm Skin
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REL (USA)	STEL: 165 mg/m <sup>3</sup> , 40 ppm TWA: 100 mg/m <sup>3</sup> , 25 ppm Skin
TLV (USA)	STEL: 167 mg/m <sup>3</sup> , 40 ppm TWA: 104 mg/m <sup>3</sup> , 25 ppm Skin
EL (Canada)	STEL: 40 ppm TWA: 25 ppm Skin
EV (Canada)	STEL: 167 mg/m <sup>3</sup> , 40 ppm TWA: 104 mg/m <sup>3</sup> , 25 ppm Skin

· **Ingredients with biological limit values:**

**111-76-2 2-butoxyethanol (2.5-10%)**

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.
- Store protective clothing separately.
- Avoid contact with the eyes and skin.
- Do not eat, drink, smoke or sniff while working.

· **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:**



Chemical resistant protective gloves

· **Eye protection:**



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

· **Body protection:** Protective work clothing

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**9 Physical and chemical properties**· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**

· <b>Form:</b>	Liquid
· <b>Color:</b>	Light yellow

· <b>Odor:</b>	Petroleum-like
· <b>Odor threshold:</b>	Not determined.

· <b>pH-value:</b>	9.5
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· **Change in condition**

· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	Undetermined.

· <b>Flash point:</b>	45 °C
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· <b>Flammability (solid, gaseous):</b>	Not applicable.
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· **Ignition temperature:**

· <b>Decomposition temperature:</b>	Not determined.
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· <b>Auto igniting:</b>	Product is not selfigniting.
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· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
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· **Explosion limits:**

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

· <b>Vapor pressure:</b>	Not determined.
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· <b>Density:</b>	Not determined.
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· <b>Relative density at 20 °C</b>	0.88
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· <b>Vapor density</b>	Not determined.
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· <b>Evaporation rate</b>	Not determined.
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· **Solubility in / Miscibility with**

· <b>Water:</b>	Not miscible or difficult to mix.
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· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
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· **Viscosity:**

· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.

· <b>Other information</b>	No further relevant information available.
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**10 Stability and reactivity**

· <b>Reactivity</b>	No further relevant information available.
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· **Chemical stability**· **Thermal decomposition / conditions to be avoided:**

	Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.
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- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Heat, open flames, sparks.
- **Incompatible materials:** Strong Oxidizers
- **Hazardous decomposition products:** May include, and are not limited to: oxides of carbon.

**11 Toxicological information**• **Information on toxicological effects**• **Acute toxicity:**• **LD/LC50 values that are relevant for classification:****ATE (Acute Toxicity Estimate)**

Oral	LD50	14,140 mg/kg (gpg)
Dermal	LD50	20,000 mg/kg (gpg)
Inhalative	LC50/4 h (vapor)	>26.2 mg/L

**64742-95-6 Solvent naphtha (petroleum), light arom.**

Oral	LD50	>6,800 mg/kg (rat)
Dermal	LD50	>3,400 mg/kg (rab)
Inhalative	LC50/4 h (vapor)	>10.2 mg/L (rat)

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

Oral	LD50	1,414 mg/kg (gpg)
Dermal	LD50	2,000 mg/kg (gpg)
Inhalative	LC50/4 h (vapor)	11.5 mg/L (gpg)

**108-11-2 4-methylpentan-2-ol**

Oral	LD50	2,590 mg/kg (rat)
Dermal	LD50	3,560 mg/kg (rabbit)

• **Primary irritant effect:**• **on the skin:**

May cause mild skin irritation. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis.

• **on the eye:**

May cause eye irritation. Symptoms may include discomfort or pain, excessive blinking and tear production, with possible redness and swelling.

• **Inhalation:**

Do not inhale, can cause respiratory system irritation.  
coughing

• **Ingestion:** May be fatal if swallowed and enter airways.• **Sensitization:** No sensitizing effects known.• **Additional toxicological information:**

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

Harmful

Irritant

Carcinogenic.

The product can cause inheritable damage.

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· <b>IARC (International Agency for Research on Cancer)</b>		
111-76-2	2-butoxyethanol	3
· <b>NTP (National Toxicology Program)</b>		
None of the ingredients is listed.		
· <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>		
None of the ingredients is listed.		

**12 Ecological information**

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**

· <b>Bioaccumulative potential</b>	
<b>108-11-2 4-methylpentan-2-ol</b>	
Bioaccumulation	1.43 (-) (potential low)

- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
  - **General notes:**
    - Water hazard class 2 (Self-assessment): hazardous for water
    - Do not allow product to reach ground water, water course or sewage system.
    - Danger to drinking water if even small quantities leak into the ground.
- **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.
- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

· <b>UN-Number</b>	
· <b>DOT, ADR, IMDG, IATA</b>	UN1993
· <b>TDG</b>	UN1993

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<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT</b> Flammable liquids, n.o.s. (Solvent naphtha (petroleum), light arom., Methyl isobutyl carbinol, 2-butoxyethanol)</li> <li>· <b>TDG</b> Flammable liquids, n.o.s. (Solvent naphtha (petroleum), light arom., Methyl isobutyl carbinol, 2-butoxyethanol)</li> <li>· <b>IMDG, IATA</b> FLAMMABLE LIQUID, N.O.S. (Solvent naphtha (petroleum), light arom., METHYL ISOBUTYL CARBINOL, 2-butoxyethanol)</li> </ul>	
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> </ul>	
	
<ul style="list-style-type: none"> <li>· <b>Class</b> 3 Flammable liquids</li> <li>· <b>Label</b> 3</li> </ul>	
<ul style="list-style-type: none"> <li>· <b>TDG</b></li> <li>· <b>Class</b> 3 Flammable liquids</li> <li>· <b>Label</b> 3</li> </ul>	
<ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>	
	
<ul style="list-style-type: none"> <li>· <b>Class</b> 3 Flammable liquids</li> <li>· <b>Label</b> 3</li> </ul>	
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, IMDG, IATA</b> III</li> <li>· <b>TDG</b> III</li> </ul>	
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b> No</li> </ul>	
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b> Warning: Flammable liquids</li> <li>· <b>Danger code (Kemler):</b> 30</li> <li>· <b>EMS Number:</b> F-E,S-E</li> <li>· <b>Stowage Category</b> A</li> </ul>	
<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> Not applicable.</li> </ul>	
<ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> </ul>	
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b> 5L</li> <li>· <b>Excepted quantities (EQ)</b> Code: E1</li> </ul>	
Maximum net quantity per inner packaging: 30 ml	

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	Maximum net quantity per outer packaging: 1000 ml
· <b>Size/package type:</b>	LTD QTY, Consumer Commodity, ORM-D (473 mL/bottle)
· <b>UN "Model Regulation":</b>	UN 1993 FLAMMABLE LIQUIDS, N.O.S. (SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM., METHYL ISOBUTYL CARBINOL, 2-BUTOXYETHANOL), 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):**

111-76-2 | 2-butoxyethanol

· **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.

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· Canadian Ingredient Disclosure list (limit 1%)	
111-76-2	2-butoxyethanol
108-11-2	4-methylpentan-2-ol

## 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.

· **Contact:** Engineering Department

· **Issue Date** 05/OCT/2017

· **Revision Changes:**

v 1.0 - original SDS release (06/OCT/2015)

v 2.0 - revised (29/JUL/2016)

v 3.0 - revised section 2 (05/OCT/2017)

· **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

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids – Category 3

Muta. 1B: Germ cell mutagenicity – Category 1B

Carc. 1B: Carcinogenicity – Category 1B

Asp. Tox. 1: Aspiration hazard – Category 1