



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

- **1.1 Product identifier**
 - **Product name: TerraDiesel™ Engine Tune**
 - **Part number:** 201215
 - **Application of the substance / the mixture** diesel fuel injector cleaner additive
- **1.3 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
- **1.4 Emergency telephone number:** CHEMTREC International +1 (703) 527-3887 24 hr

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
 - **Classification according to Regulation (EC) No 1272/2008**
Flam. Liq. 3 H226 Flammable liquid and vapour.
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.
- **2.2 Label elements**
 - **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
 - **Hazard pictograms**

GHS02 GHS08
 - **Signal word** Danger
 - **Hazard-determining components of labelling:**
Solvent naphtha (petroleum), light arom.
Solvent naphtha (petroleum), heavy arom.
 - **Hazard statements**
H226 Flammable liquid and vapour.
H340 May cause genetic defects.
H350 May cause cancer.
H304 May be fatal if swallowed and enters airways.
 - **Precautionary statements**
P201 Obtain special instructions before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P281 Use personal protective equipment as required.
P312 Call a POISON CENTER/doctor if you feel unwell.

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P405 Store locked up.

P501 Dispose of contents in accordance with local regulations.

· **Additional information:**

Restricted to professional users.

· **2.3 Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients**· **3.2 Mixtures**· **Chemical components:**

CAS: 64742-95-6 EINECS: 265-199-0	Solvent naphtha (petroleum), light arom. Flam. Liq. 3, H226; Muta. 1B, H340; Carc. 1B, H350; Asp. Tox. 1, H304	25-50%
CAS: 64742-94-5 EINECS: 265-198-5	Solvent naphtha (petroleum), heavy arom. Asp. Tox. 1, H304	25-50%
CAS: 108-11-2 EINECS: 203-551-7	4-methylpentan-2-ol Flam. Liq. 3, H226; STOT SE 3, H335	<10%
CAS: 111-76-2 EINECS: 203-905-0	2-butoxyethanol Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	<10%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures**· **4.1 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. Get immediate medical attention.

A person vomiting while laying 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.

· **4.2 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.

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Headache
Dizziness
Disorientation
Coughing
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.

· **4.3 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.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water

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

· **5.3 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.

SECTION 6: Accidental release measures

· **6.1 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.

· **6.2 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).

· **6.3 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

· **6.4 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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SECTION 7: Handling and storage

- **7.1 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 fire - and explosion protection:**
 - Keep ignition sources away - Do not smoke.
 - Protect from heat.
 - Protect against electrostatic charges.
 - Keep respiratory protective device available.
- **7.2 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 container tightly sealed.
 - Protect from heat and direct sunlight.
- **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:	
111-76-2 2-butoxyethanol (10%)	
WEL	Short-term value: 246 mg/m ³ , 50 ppm Long-term value: 123 mg/m ³ , 25 ppm Sk, BMGV
108-11-2 4-methylpentan-2-ol (10%)	
WEL	Short-term value: 170 mg/m ³ , 40 ppm Long-term value: 106 mg/m ³ , 25 ppm Sk
· Ingredients with biological limit values:	
111-76-2 2-butoxyethanol (10%)	
BMGV	240 mmol/mol creatinine Octanol-Water: urine 0.1: post shift 7.3: butoxyacetic acid

- **Additional information:** The lists valid during the making were used as basis.

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

· **Respiratory protection:**

- In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**

Chemical resistant protective gloves (EN 374)

· **Eye protection:**

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

· **Body protection:** Protective work clothing**SECTION 9: Physical and chemical properties**· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

- **Form:** Liquid
- **Colour:** Light yellow
- **Odour:** Petroleum-like
- **Odour threshold:** Not determined.

· **pH-value:** 9.5· **Change in condition**

- **Melting point/freezing point:** Undetermined.
- **Initial boiling point and boiling range:** Undetermined.

· **Flash point:** 45 °C· **Flammability (solid, gas):** Not applicable.· **Ignition temperature:**

- **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.· **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

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· Explosion limits:	
· Lower:	Not determined.
· Upper:	Not determined.
· Vapour pressure:	Not determined.
· Density:	Not determined.
· Relative density at 20 °C	0.88
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
· water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
· Dynamic:	Not determined.
· Kinematic:	Not determined.
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
 - **Acute toxicity** Based on available data, the classification criteria are not met.

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

ATE (Acute Toxicity Estimates)		
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)

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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:**
 - **Skin corrosion/irritation** May cause mild skin irritation.
 - **Serious eye damage/irritation**
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.
- **Respiratory or skin sensitisation**
Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
 - **Germ cell mutagenicity**
May cause genetic defects.
 - **Carcinogenicity**
May cause cancer.
 - **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**
May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

- **12.1 Toxicity**
 - **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential****108-11-2 4-methylpentan-2-ol**

Bioaccumulation 1.43 (-) (potential low)

- **12.4 Mobility in soil** No further relevant information available.
 - **Additional ecological information:**
 - **General notes:**
Water hazard class 2 (German Regulation) (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.
- **12.5 Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods
· Recommendation

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

· Uncleaned packaging:

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

SECTION 14: Transport information

14.1 UN-Number
· ADR, IMDG, IATA

UN1993

14.2 UN proper shipping name
· ADR

UN1993 FLAMMABLE LIQUID, N.O.S. (Solvent naphtha (petroleum), light arom., METHYL ISOBUTYL CARBINOL, 2-butoxyethanol)

· IMDG, IATA

FLAMMABLE LIQUID, N.O.S. (Solvent naphtha (petroleum), light arom., METHYL ISOBUTYL CARBINOL, 2-butoxyethanol)

14.3 Transport hazard class(es)
· ADR

· Class

3 (F1) Flammable liquids.

· Label

3

· IMDG, IATA

· Class

3 Flammable liquids.

· Label

3

14.4 Packing group
· ADR, IMDG, IATA

III

14.5 Environmental hazards:
· Marine pollutant:

No

14.6 Special precautions for user

Warning: Flammable liquids.

· Danger code (Kemler):

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· EMS Number:

F-E,S-E

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· Stowage Category	A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	

· ADR	
· 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
· Transport category	3
· Tunnel restriction code	D/E

· 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
· Remarks:	Size/package type: 473mL/bottle
· UN "Model Regulation":	UN 1993 FLAMMABLE LIQUID, N.O.S. (SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM., METHYL ISOBUTYL CARBINOL, 2-BUTOXYETHANOL), 3, III

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

No REACH Annex XVII restrictions

Contains no REACH candidate substance

· **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category P5c** FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5.000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50.000 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 28, 29

· **National regulations:**· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

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

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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.

- **Issue Date:** 05/OCT/2017
- **Contact:** Engineering Department
 - **Revision Changes:**
 - v 1.0 - original SDS release (01/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
 - Acute Tox. 4: Acute toxicity – Category 4
 - Skin Irrit. 2: Skin corrosion/irritation – Category 2
 - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 - Muta. 1B: Germ cell mutagenicity – Category 1B
 - Carc. 1B: Carcinogenicity – Category 1B
 - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 - Asp. Tox. 1: Aspiration hazard – Category 1

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