

Safety Data Sheet

Issue date: 22.02.2018

v 1

Last Revision Date: 24.05.2017

1 Identification

- **Product identifier**

- **Trade name: TerraClean GDI Clean**

- **Part number: 201456, 9803455**

- **Application of the substance / the mixture** engine carbon deposit remover

- **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@terraceclean.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.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

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

Carc. 2 H351 Suspected of causing cancer.

STOT SE 3 H335 May cause respiratory irritation.

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

Aquatic Acute 2 H401 Toxic to aquatic life.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

- **Label elements**

- **GHS label elements**

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

- **Hazard pictograms**



GHS02 GHS07 GHS08 GHS09

- **Signal word** Danger

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

- (R)-p-mentha-1,8-diene

- Solvent naphtha (petroleum), heavy arom.

- 4-methylpentan-2-ol

- Naphtha (petroleum), light alkylate

- **Hazard statements**

- Flammable liquid and vapor.

- Causes skin irritation.

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Causes serious eye irritation.
 May cause an allergic skin reaction.
 Suspected of causing cancer.
 May cause respiratory irritation.
 May be fatal if swallowed and enters airways.
 Toxic to aquatic life.
 Toxic to aquatic life with long lasting effects.

- **Precautionary statements**

Obtain special instructions before use.
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Wash thoroughly after handling.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If swallowed: Immediately call a poison center/doctor.
 Specific treatment (see on this label).
 Do NOT induce vomiting.
 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.
 Take off contaminated clothing and wash it before reuse.
 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:		
1330-20-7	xylene	10-25%
5989-27-5	(R)-p-mentha-1,8-diene	10-25%
108-11-2	4-methylpentan-2-ol	10-25%
111-76-2	2-butoxyethanol	10-25%
64742-94-5	Solvent naphtha (petroleum), heavy arom.	2.5-10%
64741-66-8	Naphtha (petroleum), light alkylate	2.5-10%
91-20-3	naphthalene	≤2.5%

- **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 and to be sure call for a doctor.
 In case of unconsciousness place patient stably in side position for transportation.

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- **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:** If symptoms persist consult doctor.
- **Information for doctor:** Treat Symptomatically
 - **Most important symptoms and effects, both acute and delayed**
Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
See section 11.
 - **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
 - **Suitable extinguishing agents:** CO₂, 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.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.
- **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.
Prevent formation of aerosols.

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

Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

· **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.

· **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:**

1330-20-7 xylene (10-25%)

PEL (USA)	TWA: 435 mg/m ³ , 100 ppm
REL (USA)	STEL: 655 mg/m ³ , 150 ppm TWA: 435 mg/m ³ , 100 ppm
TLV (USA)	STEL: 651 mg/m ³ , 150 ppm TWA: 434 mg/m ³ , 100 ppm BEI
EL (Canada)	STEL: 150 ppm TWA: 100 ppm
EV (Canada)	STEL: 650 mg/m ³ , 150 ppm TWA: 435 mg/m ³ , 100 ppm

108-11-2 4-methylpentan-2-ol (10-25%)

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

111-76-2 2-butoxyethanol (10-25%)

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

91-20-3 naphthalene (≤2.5%)

PEL (USA)	TWA: 50 mg/m ³ , 10 ppm
REL (USA)	STEL: 75 mg/m ³ , 15 ppm TWA: 50 mg/m ³ , 10 ppm
TLV (USA)	TWA: 52 mg/m ³ , 10 ppm Skin; BEI
EL (Canada)	STEL: 15 ppm TWA: 10 ppm Skin; IARC 2B
EV (Canada)	STEL: 78 mg/m ³ , 15 ppm TWA: 52 mg/m ³ , 10 ppm

· Ingredients with biological limit values:**1330-20-7 xylene (10-25%)**

BEI (USA)	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids
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111-76-2 2-butoxyethanol (10-25%)

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 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:

Chemical resistant protective gloves

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· 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: Fluid
 · Color: yellow to light orange

· Odor: Characteristic
 · Odor threshold: Not determined.

· pH-value: Not determined.

· Change in condition

· Melting point/Melting range: Undetermined.
 · Boiling point/Boiling range: Undetermined.

· Flash point: 30 °C

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 240 °C

· 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: Not determined.
 · Upper: Not determined.

· Vapor pressure: Not determined.

· Density: Not determined.

· Relative density: Not determined.
 · Vapor 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.
 · VOC content: 65.20 %

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· 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.

11 Toxicological information

- **Information on toxicological effects**
 - **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:****ATE (Acute Toxicity Estimate)**

Oral	LD50	3,486 mg/kg
Dermal	LD50	3,904 mg/kg
Inhalative	LC50/4 h (vapor)	76.7 mg/L (gpg)

1330-20-7 xylene

Oral	LD50	4,300 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
Inhalative	LC50/4 h (vapor)	6,700 mg/L (rat)

5989-27-5 (R)-p-mentha-1,8-diene

Oral	LD50	4,400 mg/kg (rat)
Dermal	LD50	>5 g/Kg (rabbit)

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

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

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)

91-20-3 naphthalene

Oral	LD50	490 mg/kg (rat)
Dermal	LD50	5,000 mg/kg (rat)

· **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** May cause eye irritation.

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- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

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

Harmful
Irritant

· IARC (International Agency for Research on Cancer)		
1330-20-7	xylene	3
5989-27-5	(R)-p-mentha-1,8-diene	3
111-76-2	2-butoxyethanol	3
91-20-3	naphthalene	2B

· NTP (National Toxicology Program)		
91-20-3	naphthalene	R

· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

12 Ecological information

- **Toxicity**

· Aquatic toxicity:	
5989-27-5 (R)-p-mentha-1,8-diene	
LC50 (96 h)	0.619-0.796 mg/L (Pimephales promelas)

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

· Bioaccumulative potential	
108-11-2 4-methylpentan-2-ol	
Bioaccumulation	1.43 (-) (potential low)

- **Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Toxic for fish

- **Additional ecological information:**

- **General notes:**

Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** Avoid release to the environment.

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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

· UN-Number · DOT, ADR, IMDG, IATA	UN1993
· UN proper shipping name · DOT · IMDG · IATA	Flammable liquids, n.o.s. (Xylenes, Dipentene, Methyl isobutyl carbinol, 2-butoxyethanol) FLAMMABLE LIQUID, N.O.S. (XYLENES, DIPENTENE, METHYL ISOBUTYL CARBINOL, 2-butoxyethanol), MARINE POLLUTANT FLAMMABLE LIQUID, N.O.S. (XYLENES, DIPENTENE, METHYL ISOBUTYL CARBINOL, 2-butoxyethanol)
· Transport hazard class(es) · DOT  · Class · Label	 3 Flammable liquids 3
· IMDG, IATA  · Class · Label	 3 Flammable liquids 3
· Packing group · DOT, IMDG, IATA	III
· Environmental hazards: · Marine pollutant:	Product contains environmentally hazardous substances: (R)-p-mentha-1,8-diene Yes (DOT)
· Special precautions for user	Warning: Flammable liquids

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· Danger code (Kemler):	30
· EMS Number:	F-E, <u>S-E</u>
· Stowage Category	A
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· 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":	UN 1993 FLAMMABLE LIQUIDS, N.O.S. (XYLENES, DIPENTENE, 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):

1330-20-7	xylene
111-76-2	2-butoxyethanol
91-20-3	naphthalene
95-63-6	1,2,4-trimethylbenzene

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65

· Chemicals known to cause cancer:

91-20-3	naphthalene
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· 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.

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· **Carcinogenic categories**

· EPA (Environmental Protection Agency)		
1330-20-7	xylene	I
111-76-2	2-butoxyethanol	NL
91-20-3	naphthalene	C, CBD
95-63-6	1,2,4-trimethylbenzene	II

· TLV (Threshold Limit Value established by ACGIH)		
1330-20-7	xylene	A4
111-76-2	2-butoxyethanol	A3
91-20-3	naphthalene	A4

· 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%)		
95-63-6	1,2,4-trimethylbenzene	

· Canadian Ingredient Disclosure list (limit 1%)		
5989-27-5	(R)-p-mentha-1,8-diene	
108-11-2	4-methylpentan-2-ol	
111-76-2	2-butoxyethanol	

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** 21/FEB/2017· **Revision Changes:** v 1.0 - initial SDS release (21/FEB/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

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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

Flam. Liq. 3: Flammable liquids – Category 3

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Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

NA