

Safety Data Sheet
acc. to OSHA 29 CFR 1910.1200 HCS

Issue date: 06/09/2015

Revision Date: 05/29/2015

1 Identification

- **Product identifier**

- **Trade name: Fuel System Purge**

- **Part number:** 201275

- **Application of the substance / the mixture** Engine and Fuel System Cleaner

- **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

- **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.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

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 GHS07 GHS08

- **Signal word** Danger

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

Naphtha (petroleum), light alkylate

2-butoxyethanol

Solvent naphtha (petroleum), light arom.

Distillates (petroleum), sweetened middle

- **Hazard statements**

Flammable liquid and vapor.

Harmful if inhaled.

Causes skin irritation.

Causes serious eye irritation.

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.

Wash thoroughly after handling.

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Avoid breathing dust/fume/gas/mist/vapors/spray

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

Keep container tightly closed.

Use only non-sparking tools.

If swallowed: Immediately call a poison center/doctor.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Take off contaminated clothing and wash it before reuse.

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

Call a poison center/doctor if you feel unwell.

Store locked up.

Store in a well-ventilated place. Keep cool.

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

· **Additional information:** For Professional Use Only

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2
Fire = 3
Reactivity = 0

· **HMS-ratings (scale 0 - 4)**



Health = 2
Fire = 3
Reactivity = 0

· **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:**

64741-66-8	Naphtha (petroleum), light alkylate	25-50%
111-76-2	2-butoxyethanol	≤10%
64742-95-6	Solvent naphtha (petroleum), light arom.	≤10%
108-11-2	4-methylpentan-2-ol	2.5-<10%
112-80-1	oleic acid, pure	2.5-<10%
64741-86-2	Distillates (petroleum), sweetened middle	1-≤2.5%
64742-94-5	Solvent naphtha (petroleum), heavy arom.	1-≤2.5%
1336-21-6	ammonia	0.1-<1%
91-20-3	naphthalene	0.1-<0.25%

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4 First-aid measures

- **Description of first aid measures**

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact:**

Immediately rinse with water. Immediately remove all contaminated clothing. If skin irritation occurs, get medical attention. Launder contaminated clothing before reuse.

- **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.

- **Information for doctor:**

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

Headache

Dizziness

May cause nose, throat, and lung irritation.

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

Irritating to skin and eyes. Could cause dermatitis. Will cause nausea and vomiting.

- **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.

Treat Systematically

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.

Personal protective equipment must be worn. Avoid contact with skin, eyes or clothing. Ventilate area if spilled in a confined space or other poorly ventilated area.

Particular danger of slipping on leaked/spilled product.

Remove persons from danger area.

- **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.

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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**

Keep receptacles tightly sealed.

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.

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

Keep ignition sources away - Do not smoke.

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.

- **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 ($\leq 10\%$)

PEL	TWA: 240 mg/m ³ , 50 ppm Skin
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REL	TWA: 24 mg/m ³ , 5 ppm Skin
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TLV	TWA: 97 mg/m ³ , 20 ppm BEI
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108-11-2 4-methylpentan-2-ol (2.5- $< 10\%$)

PEL	TWA: 100 mg/m ³ , 25 ppm Skin
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REL	STEL: 165 mg/m ³ , 40 ppm TWA: 100 mg/m ³ , 25 ppm Skin
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TLV	STEL: 167 mg/m ³ , 40 ppm TWA: 104 mg/m ³ , 25 ppm Skin
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Ingredients with biological limit values:

111-76-2 2-butoxyethanol (≤10%)

BEI	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:

- Wash hands before breaks and at the end of work.
- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Store protective clothing separately.

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

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Liquid
Color:	Yellow
Odor:	Characteristic
Odour threshold:	Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	131 °C (268 °F)

Flash point: 45 °C (113 °F)

Flammability (solid, gaseous): Not applicable.

Ignition temperature: 240 °C (464 °F)

Decomposition temperature: Not determined.

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· 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:	0.7 Vol %
· Upper:	10.6 Vol %
· Vapor pressure at 20 °C (68 °F):	5 hPa (4 mm Hg)
· Density at 20 °C (68 °F):	0.817 g/cm ³ (6.818 lbs/gal)
· Relative density	Not determined.
· 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.
· Solvent content:	
· Organic solvents:	64.1 %
· VOC content:	64.1 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
 - **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:** 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 Estimates)

Oral	LD50	4040 mg/kg (rat)
Dermal	LD50	3279 mg/kg
Inhalative	LC50/4 h	16.5 mg/l (rat)

111-76-2 2-butoxyethanol

Oral	LD50	470 mg/kg (rat)
Dermal	LD50	400 mg/kg (rab)

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Inhalative	LC50/4 h	2.2 mg/l (rat)
64742-95-6 Solvent naphtha (petroleum), light arom.		
Oral	LD50	>6800 mg/kg (rat)
Dermal	LD50	>3400 mg/kg (rab)
Inhalative	LC50/4 h	>10.2 mg/l (rat)
108-11-2 4-methylpentan-2-ol		
Oral	LD50	2590 mg/kg (rat)
Dermal	LD50	3560 mg/kg (rabbit)
112-80-1 oleic acid, pure		
Oral	LD50	74000 mg/kg (rat)
64741-86-2 Distillates (petroleum), sweetened middle		
Inhalative	LC50/4 h	4.6 mg/l (rat)
91-20-3 naphthalene		
Oral	LD50	490 mg/kg (rat)
Dermal	LD50	5000 mg/kg (rat)

· **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Causes serious eye irritation.
- **Inhalation:** Do not inhale, can cause respiratory system irritation.

· **Sensitization:** No sensitizing effects known.

- **Route of Exposure** inhalative, skin, eyes, ingestion

· **Additional toxicological information:**

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

Carcinogenic.

· **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)		
111-76-2	2-butoxyethanol	3
91-20-3	naphthalene	2B
102-71-6	2,2',2''-nitrioltriethanol	3

· 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:		
111-76-2 2-butoxyethanol		
EC50 (48 h)	>1000 mg/L (daphnia)	
LC50 (96 h) (static)	1490 mg/l (Lepomis macrochirus)	
112-80-1 oleic acid, pure		
LC50 (96 h)	205 mg/l (fish)	

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

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· **Behavior in environmental systems:**


· Bioaccumulative potential	
108-11-2 4-methylpentan-2-ol	
Bioaccumulation	LogPow 1.43 (-) (potential low)
112-80-1 oleic acid, pure	
Bioaccumulation	LogPow 7.73 (-) (potential high)

- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
 - **General notes:**
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

· UN-Number	
· DOT, IMDG, IATA	UN1993
· UN proper shipping name	
· DOT	Flammable liquids, 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)
· Transport hazard class(es)	
· DOT	
	
· Class	3 Flammable liquids

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· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	
· Danger code (Kemler):	Warning: Flammable liquids 30
· EMS Number:	F-E,S-E
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
Not applicable.	
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
· 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":	
UN1993, 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

1336-21-6 ammonia

91-20-3 naphthalene

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

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· **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.	
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· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.	
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· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.	
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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

111-76-2	2-butoxyethanol	NL
91-20-3	naphthalene	C, CBD

· **TLV (Threshold Limit Value established by ACGIH)**

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.	
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· **GHS label elements**

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

· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** Danger

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

Naphtha (petroleum), light alkylate
2-butoxyethanol
Solvent naphtha (petroleum), light arom.
Distillates (petroleum), sweetened middle

· **Hazard statements**

Flammable liquid and vapor.
Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.
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.
Wash thoroughly after handling.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection.
Keep container tightly closed.
Use only non-sparking tools.

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If swallowed: Immediately call a poison center/doctor.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Take off contaminated clothing and wash it before reuse.

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

Call a poison center/doctor if you feel unwell.

Store locked up.

Store in a well-ventilated place. Keep cool.

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

· **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.

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** June 9, 2015

· **Abbreviations and acronyms:**

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 3: Flammable liquids, Hazard Category 3

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

Muta. 1B: Germ cell mutagenicity, Hazard Category 1B

Carc. 1B: Carcinogenicity, Hazard Category 1B

Asp. Tox. 1: Aspiration hazard, Hazard Category 1