Issue date: 08/31/2016 v 4 Last Revision Date: 02/17/2016

#### 1 Identification

- · Product identifier
  - · Trade name: Engine Oil Cleaner
    - · Part number: 400-5000EU, 400-5000
    - · Application of the substance / the mixture Engine oil flush
- · Details of the supplier of the safety data sheet
  - Manufacturer/Supplier:

Motorvac, division of, CPS Products Canada Ltd.

1324 Blundell Road

Mississauga, ON L4Y 1M5

Canada

Tel: (905) 615-8620

- · email of person responsible: customerservice@motorvac.com
- · 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 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.

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

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very 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 GHS09

- · Signal word Warning
- · Hazard-determining components of labeling:

2-butoxyethanol

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

· Hazard statements

Flammable liquid and vapor.

Harmful if swallowed.

Harmful in contact with skin.

Harmful if inhaled.

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Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

#### · Precautionary statements

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

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

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

Avoid release to the environment.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTER/doctor if you feel unwell.

If skin irritation or rash occurs: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water.

Store in a well-ventilated place. Keep cool.

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.

· Chemic	· Chemical components:	
5989-27-5	(R)-p-mentha-1,8-diene	25-50%
111-76-2	2-butoxyethanol	25-50%

· 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.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Wash with plenty of soap and water. Remove 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.

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#### · Information for doctor:

#### · Most important symptoms and effects, both acute and delayed

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.

See section 11.

· Indication of any immediate medical attention and special treatment needed Medical supervision for at least 48 hours.

## **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.

Take precautions to avoid release to the environment. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

## · 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.

NA

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## 7 Handling and storage

- · Handling:
  - · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· 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:

#### 111-76-2 2-butoxyethanol (25-50%)

PEL (USA)	TWA: 240 mg/m <sup>3</sup> , 50 ppm
REL (USA)	Skin TWA: 24 mg/m³, 5 ppm
KLL (USA)	Skin
TLV (USA)	TWA: 97 mg/m³, 20 ppm BEI
EL (Canada)	TWA: 20 ppm
EV (Canada)	TWA: 20 ppm
TLV (USA)	Skin TWA: 97 mg/m³, 20 ppm

#### · Ingredients with biological limit values:

# 111-76-2 2-butoxyethanol (25-50%)

BEI (USA) 200 mg/g creatinine

Medium: urine Time: end of shift

Parameter: Butoxyacetic acid with hydrolysis

- · 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.

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#### · 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	es
Information on basic physical and che     General Information	mical properties
· Appearance: · Form:	Liquid
· Color:	Liquid Amber colored
Odor:	Citrus
· Odor threshold:	Not determined.
· pH-value at 20 °C:	4
<ul> <li>Change in condition</li> <li>Melting point/Melting range:</li> <li>Boiling point/Boiling range:</li> </ul>	Undetermined. 171 °C
· Flash point:	53 °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: · Upper:	0.7 Vol % 10.6 Vol %
· Vapor pressure at 20 °C:	2.3 hPa
· Density at 20 °C:	0.876 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapor density	Not determined.
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• 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 at 40 °C: 1.77 mm²/s

· Solvent content:

· Organic solvents: 60.0 %

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: 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/	· LD/LC50 values that are relevant for classification:				
ATE (Acu	ATE (Acute Toxicity Estimates)				
Dermal	LD50	6667 mg/kg (gpg)			
Inhalative	LC50/4 h (vapor)	32 mg/L (gpg)			
5989-27-5	5989-27-5 (R)-p-mentha-1,8-diene				
Oral	LD50	4400 mg/kg (rat)			
Dermal	LD50	>5 g/Kg (rabbit)			
111-76-2 2	111-76-2 2-butoxyethanol				
Oral	LD50	1414 mg/kg (gpg)			
Dermal	LD50	2000 mg/kg (gpg)			
Inhalative	LC50/4 h (vapor)	9.6 mg/L (gpg)			

- · Primary irritant effect:
  - · on the skin: Irritant to skin and mucous membranes.
  - · on the eye: Irritating effect.

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#### · Ingestion:

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

#### · Sensitization:

May produce an allergic reaction.

Sensitization possible through skin contact.

#### Additional toxicological information:

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

Harmful

Irritant

IIIIaiii		
· 1A	ARC (International Agency for Research on Cancer)	
5989-27-5	(R)-p-mentha-1,8-diene	3
111-76-2	2-butoxyethanol	3
· N	ITP (National Toxicology Program)	
None of the	e ingredients is listed.	
. 0	SHA-Ca (Occupational Safety & Health Administration)	<u> </u>
None of the	e 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 No further relevant information available.
  - · Mobility in soil No further relevant information available.
- · Ecotoxical effects:
  - · Remark: Very toxic for fish
- · 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.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

- Results of PBT and vPvB assessment
  - · **PBT:** Not applicable.
  - · **vPvB:** Not applicable.
- · Other adverse effects Avoid release to the environment.

NA -

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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.

UN-Number	
· DOT	NA1993
· IMDG, IATA	UN2052
UN proper shipping name	
· DOT	Flammable liquids, n.o.s. (Dipentene,
· IMDG	butoxyethanol) DIPENTENE solution, MARINE POLLUTANT
· IATA	DIPENTENE solution
Transport hazard class(es)	
· DOT	
FLAMMBLE LOUD	
· Class	3 Flammable liquids
· Label	3
· IMDG, IATA	
· Class	3 Flammable liquids
· Label	3
Packing group	
· DOT, IMDĠ, IATA	III
Environmental hazards:	Product contains environmentally hazardous substance (R)-p-mentha-1,8-diene
· Marine pollutant:	Yes
Special precautions for user	Warning: Flammable liquids
<ul> <li>Danger code (Kemler):</li> </ul>	30
· EMS Number:	F-E,S-E

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	(Contd. of page
· Stowage Category	Α
<ul> <li>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</li> </ul>	of Not applicable.
· Transport/Additional information: · Excepted quantities (EQ)	Code: E1  Maximum net quantity per inner packaging: 30 ml  Maximum net quantity per outer packaging: 1000 ml
IMDG     Limited quantities (LQ)     Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 100 ml
· UN "Model Regulation":	UN 2052 DIPENTENE SOLUTION, 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

А3

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· 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%)

All ingredients are listed.

#### **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 2015/09/01
  - · Revision Changes:
  - v 1.0 original SDS release (2015/06/26)
  - v 2.0 modified product name field (2015/07/13)
  - v 3.0 modified transportation section (2015/09/17)
  - v 4.0 modified shipping number (2016/08/31)

#### 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

Acute Tox. 4: Acute toxicity – Category 4

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

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1

NA