

## Safety Data Sheet

Issue date: 08/27/2015

v 1

Revision Date: 08/27/2015

## 1 Identification

- **Product identifier**

- **Trade name: MV CarbonClean MV4**

- **Part number:** 400-0030

- **Application of the substance / the mixture** fuel cleaner additive

- **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

- Phone: (905) 615-8620

- email: 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

Classified according to the criteria of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), OSHA Hazardous Communication Standard (29 CFR 1910.1200) and the Canadian Controlled Products Regulations.

- **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.

- 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:**

- Solvent naphtha (petroleum), light arom.

- Solvent naphtha (petroleum), heavy arom.

- Distillates (petroleum), hydrotreated heavy naphthenic

- **Hazard statements**

- Flammable liquid and vapor.

- Causes skin irritation.

- Causes serious eye irritation.

- May cause genetic defects.

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May cause cancer.

May be fatal if swallowed and enters airways.

- **Precautionary statements**

Obtain special instructions before use.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

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

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

IF exposed or concerned: Get medical advice/attention.

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

IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.

Store in a well-ventilated place. Keep cool.

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

- **Additional information:** Restricted to professional users.

- **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:**

64742-95-6	Solvent naphtha (petroleum), light arom. Flam. Liq. 3, H226; Muta. 1B, H340; Carc. 1B, H350; Asp. Tox. 1, H304	10-<25%
64742-94-5	Solvent naphtha (petroleum), heavy arom. Asp. Tox. 1, H304	10-<25%
108-93-0	cyclohexanol Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; STOT SE 3, H335	2.5-<10%
111-76-2	2-butoxyethanol Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Flam. Liq. 4, H227	2.5-<10%
64742-52-5	Distillates (petroleum), hydrotreated heavy naphthenic Carc. 1B, H350	2.5-<10%
112-80-1	oleic acid, pure Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	1-≤2.5%

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

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- In case of unconsciousness place patient stably in side position for transportation.
- **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:**  
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.  
Do not induce vomiting.  
If symptoms persist consult doctor.
  - **Information for doctor:** Treat Symptomatically
    - **Most important symptoms and effects, both acute and delayed**  
Coughing  
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.  
Skin irritant
    - **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:** 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  
Use respiratory protective device against the effects of fumes/dust/aerosol.  
Do not touch or walk through spilled material.
- **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.

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- 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.

**7 Handling and storage**

- **Handling:**
  - **Precautions for safe handling**  
Open and handle receptacle with care.  
Avoid contact with the eyes and skin.  
Avoid contact with clothing.  
Use only in well ventilated areas.  
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 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.  
Store in cool, dry, dark place, away from 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:****108-93-0 cyclohexanol (2.5-<10%)**

PEL (USA)	TWA: 200 mg/m <sup>3</sup> , 50 ppm
REL (USA)	TWA: 200 mg/m <sup>3</sup> , 50 ppm Skin
TLV (USA)	TWA: 206 mg/m <sup>3</sup> , 50 ppm Skin

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EL (Canada)	TWA: 50 ppm Skin
EV (Canada)	TWA: 200 mg/m <sup>3</sup> , 50 ppm Skin
<b>111-76-2 2-butoxyethanol (2.5-&lt;10%)</b>	
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

· **Ingredients with biological limit values:****108-93-0 cyclohexanol (2.5-<10%)**

BEI (USA)	- Medium: urine Time: end of shift at end of workweek Parameter: 1.2-Cyclohexanediol with hydrolysis (nonquantitative, nonspecific)
	- Medium: urine Time: end of shift Parameter: Cyclohexanol with hydrolysis (nonquantitative, nonspecific)

**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.
- 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

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· **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: Amber colored
- Odor: Petrol-like
- Odour threshold: Not determined.

· pH-value at 20 °C: 9.3

#### · Change in condition

- Melting point/Melting range: Undetermined.
- Boiling point/Boiling range: 160 °C

· Flash point: 45 °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: 0.7 Vol %
- Upper: 7.5 Vol %

· Vapor pressure at 20 °C: 5 hPa

· Density: Not determined.

- 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.

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· <b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	27.5 %
· <b>Solids content:</b>	7.5 %
· <b>Other information</b>	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:**

· <b>LD/LC50 values that are relevant for classification:</b>		
<b>ATE (Acute Toxicity Estimates)</b>		
Oral	LD50	5103 mg/kg (rat)
Dermal	LD50	4060 mg/kg (rab)
Inhalative	LC50/4 h	16.5 mg/l
<b>64742-95-6 Solvent naphtha (petroleum), light arom.</b>		
Oral	LD50	>6800 mg/kg (rat)
Dermal	LD50	>3400 mg/kg (rab)
Inhalative	LC50/4 h	>10.2 mg/l (rat)
<b>108-93-0 cyclohexanol</b>		
Oral	LD50	2060 mg/kg (rat)
Inhalative	LC50/4 h	11 mg/l (ATE)
<b>111-76-2 2-butoxyethanol</b>		
Oral	LD50	470 mg/kg (rat)
Dermal	LD50	400 mg/kg (rab)
Inhalative	LC50/4 h	2.2 mg/l (rat)
<b>112-80-1 oleic acid, pure</b>		
Oral	LD50	74000 mg/kg (rat)

- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **Inhalation:** May cause respiratory tract irritation.

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- **Ingestion:** Irritating to mouth, throat and stomach.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Carcinogenic.

- **Carcinogenic categories**

· <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**

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

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

· <b>Bioaccumulative potential</b>	
<b>112-80-1 oleic acid, pure</b>	
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.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

· <b>UN-Number</b>	
· DOT, IMDG, IATA	UN1993
· TDG	UN1993
· <b>UN proper shipping name</b>	
· DOT	Flammable liquids, n.o.s. (Solvent naphtha (petroleum), light arom., 2-butoxyethanol, cyclohexanol)
· TDG	Flammable liquids, n.o.s. (Solvent naphtha (petroleum), light arom., 2-butoxyethanol, cyclohexanol)
· IMDG, IATA	FLAMMABLE LIQUID, N.O.S. (Solvent naphtha (petroleum), light arom., 2-butoxyethanol, cyclohexanol)
· <b>Transport hazard class(es)</b>	
· DOT	
	
· Class	3 Flammable liquids
· Label	3
· TDG	
· Class	3 Flammable liquids
· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids
· Label	3
· <b>Packing group</b>	
· DOT, IMDG, IATA	III
· TDG	III
· <b>Environmental hazards:</b>	
· Marine pollutant:	No
· <b>Special precautions for user</b>	Warning: Flammable liquids
· <b>Danger code (Kemler):</b>	30

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· <b>EMS Number:</b>	F-E,S-E
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 1993 FLAMMABLE LIQUIDS, N.O.S. (SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM., 2-BUTOXYETHANOL, CYCLOHEXANOL), 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):**

108-93-0 cyclohexanol

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

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<ul style="list-style-type: none"> <li>· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b></li> </ul>
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None of the ingredients is listed.
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<ul style="list-style-type: none"> <li>· <b>Canadian substance listings:</b></li> </ul>
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<ul style="list-style-type: none"> <li>· <b>Canadian Domestic Substances List (DSL)</b></li> </ul>
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All ingredients are listed.
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<ul style="list-style-type: none"> <li>· <b>Canadian Ingredient Disclosure list (limit 0.1%)</b></li> </ul>
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None of the ingredients is listed.
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<ul style="list-style-type: none"> <li>· <b>Canadian Ingredient Disclosure list (limit 1%)</b></li> </ul>
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108-93-0	cyclohexanol
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111-76-2	2-butoxyethanol
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112-80-1	oleic acid, pure
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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:**

Solvent naphtha (petroleum), light arom.

Solvent naphtha (petroleum), heavy arom.

Distillates (petroleum), hydrotreated heavy naphthenic

- **Hazard statements**

Flammable liquid and vapor.

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, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

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

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

IF exposed or concerned: Get medical advice/attention.

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

IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.

Store in a well-ventilated place. Keep cool.

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

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**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.

- **Relevant phrases**
  - H226 Flammable liquid and vapor.
  - H227 Combustible liquid.
  - H302 Harmful if swallowed.
  - H304 May be fatal if swallowed and enters airways.
  - H312 Harmful in contact with skin.
  - H315 Causes skin irritation.
  - H319 Causes serious eye irritation.
  - H332 Harmful if inhaled.
  - H335 May cause respiratory irritation.
  - H340 May cause genetic defects.
  - H350 May cause cancer.
- **Contact:** Engineering Department
- **Issue Date** August 27, 2015
- **Revision Changes:** v 1.0 - original SDS release (August 27, 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)
  - 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, Hazard Category 3
  - Flam. Liq. 4: Flammable liquids, Hazard Category 4
  - 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
  - STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
  - Asp. Tox. 1: Aspiration hazard, Hazard Category 1

NA