

Safety data sheet
according to Regulation (EU) No. 453/2010

Issue date: 01.12.2015

Version 2

Last Revision: 03.07.2015

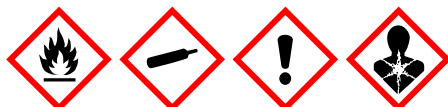
SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
 - **Product name: Motorvac CarbonClean MV-5**
 - **Part number:** 400-0050
 - **Application of the substance / the mixture** engine and fuel system cleaner
- **1.3 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 of person responsible:** customerservice@motorvac.com
- **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. Aerosol 1 H222 - H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
 - Press. Gas C H280 Contains gas under pressure; may explode if heated.
 - 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.

- **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 GHS04 GHS07 GHS08

- **Signal word** Danger
- **Hazard-determining components of labelling:**
Naphtha (petroleum), light alkylate
Solvent naphtha (petroleum), light arom.
Distillates (petroleum), sweetened middle
- **Hazard statements**
H222 - H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
H280 Contains gas under pressure; may explode if heated.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H340 May cause genetic defects.
H350 May cause cancer.
H304 May be fatal if swallowed and enters airways.

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· **Precautionary statements**

- P201 Obtain special instructions before use.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P251 Do not pierce or burn, even after use.
 P211 Do not spray on an open flame or other ignition source.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P331 Do NOT induce vomiting.
 P405 Store locked up.
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
 P403 Store in a well-ventilated place.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:**

- Restricted to professional users.
 Buildup of explosive mixtures possible without sufficient ventilation.

· **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**

- **Description:** Mixture: consisting of the following hazardous components.

· **Dangerous components:**

CAS: 64741-66-8 EINECS: 265-068-8	Naphtha (petroleum), light alkylate Muta. 1B, H340; Carc. 1B, H350; Asp. Tox. 1, H304	25-50%
CAS: 74-98-6 EINECS: 200-827-9	propane Flam. Gas 1, H220; Press. Gas C, H280	10-<25%
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. 2A, H319; Flam. Liq. 4, H227	≤10%
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	≤10%
CAS: 108-11-2 EINECS: 203-551-7	4-methylpentan-2-ol Flam. Liq. 3, H226; STOT SE 3, H335	2.5-<10%
CAS: 112-80-1 EINECS: 204-007-1	oleic acid, pure Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	2.5-<10%
CAS: 64741-86-2 EINECS: 265-088-7	Distillates (petroleum), sweetened middle Acute Tox. 1, H330; Carc. 1B, H350; Asp. Tox. 1, H304	0.1-≤2.5%
CAS: 64742-94-5 EINECS: 265-198-5	Solvent naphtha (petroleum), heavy arom. Asp. Tox. 1, H304	0.1-≤2.5%
CAS: 1336-21-6 EINECS: 215-647-6	ammonia Skin Corr. 1B, H314; Aquatic Acute 1, H400	0.1-<1%
CAS: 91-20-3 EINECS: 202-049-5	naphthalene Carc. 2, H351; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Flam. Liq. 4, H227	0.1-≤2.5%

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· **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 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. Get immediate medical attention.

A person vomiting while laying on their back should be turned onto their side.

· 4.2 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.

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.

Treat Symptomatically

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:

Recommend wearing self-contained breathing apparatus. Water may cause splattering.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Particular danger of slipping on leaked/spilled product.

· 6.2 Environmental precautions:

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.

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· **6.3 Methods and material for containment and cleaning up:**

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

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.

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.

· **Information about fire - and explosion protection:**

Do not spray onto a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Observe official regulations on storing packagings with pressurised containers.

See section 10 for incompatible materials.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:**

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

112-34-5 2-(2-butoxyethoxy)ethanol (1-≤2.5%)

WEL Short-term value: 101.2 mg/m³, 15 ppm

Long-term value: 67.5 mg/m³, 10 ppm

123-42-2 4-hydroxy-4-methylpentan-2-one (1-≤2.5%)

WEL Short-term value: 362 mg/m³, 75 ppm

Long-term value: 241 mg/m³, 50 ppm

67-63-0 propan-2-ol (1-≤2.5%)

WEL Short-term value: 1250 mg/m³, 500 ppm

Long-term value: 999 mg/m³, 400 ppm

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124-38-9 carbon dioxide (1-<2.5%)

WEL Short-term value: 27400 mg/m³, 15000 ppm
Long-term value: 9150 mg/m³, 5000 ppm

95-63-6 1,2,4-trimethylbenzene (1-<2.5%)

WEL Long-term value: 125 mg/m³, 25 ppm
ILV

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

· **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.

· **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:** Yellow
· **Odour:** Characteristic
· **Odour threshold:** Not determined.

· **pH-value at 20 °C:** 9.2

· **Change in condition**

· **Melting point/Melting range:** Undetermined.
· **Boiling point/Boiling range:** -44 °C

· **Flash point:** -97 °C

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 240 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

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· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
· Lower:	0.7 Vol %
· Upper:	10.9 Vol %
· Vapour pressure at 20 °C:	8300 hPa
· Density:	Not determined.
· Relative density at 20 °C	0.817
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· 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:	76.6 %
· 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	4700 mg/kg (rat)
Dermal	LD50	4000 mg/kg (rab)
Inhalative	LC50/4 h (vapor)	41.1 mg/L

111-76-2 2-butoxyethanol

Oral	LD50	470 mg/kg (rat)
Dermal	LD50	400 mg/kg (rab)
Inhalative	LC50/4 h (vapor)	11 mg/L (ATE)

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64742-95-6 Solvent naphtha (petroleum), light arom.		
Oral	LD50	>6800 mg/kg (rat)
Dermal	LD50	>3400 mg/kg (rab)
Inhalative	LC50/4 h (vapor)	>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 (vapor)	4.6 mg/L (rat)
91-20-3 naphthalene		
Oral	LD50	490 mg/kg (rat)
Dermal	LD50	5000 mg/kg (rat)

- **Primary irritant effect:**

- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Inhalation:** Do not inhale , can cause respiratory system irritation.
- **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:**
Harmful to aquatic life with long lasting effects.

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)

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

- **12.3 Bioaccumulative potential**

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

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112-80-1 oleic acid, pure



Bioaccumulation | LogPow 7.73 (-) (potential high)

- **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** Avoid release to the environment.

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

- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, IMDG, IATA | UN1950 |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG · IATA | UN1950 AEROSOLS
AEROSOLS
Aerosols, flammable |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR | <div style="text-align: center;">  </div> <ul style="list-style-type: none"> · Class · Label |
| <ul style="list-style-type: none"> · IMDG, IATA | <div style="text-align: center;">  </div> <ul style="list-style-type: none"> · Class · Label |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | 2 5F Gases.
2.1

Not Regulated |

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· **14.5 Environmental hazards:**

· **Marine pollutant:** No

· **14.6 Special precautions for user**

Warning: Gases.

· **Danger code (Kemler):**

-

· **EMS Number:**

F-D,S-U

· **Segregation groups**

Ammonium compounds

· **Stowage Code**

SW1 Protected from sources of heat.
SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.

· **Segregation Code**

SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E0

Not permitted as Excepted Quantity

· **Transport category**

2

· **Tunnel restriction code**

D

· **IMDG**

· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E0

Not permitted as Excepted Quantity

· **UN "Model Regulation":**

UN 1950 AEROSOLS, 2.1

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**

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

· **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.

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

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:** December 1, 2015

· **Relevant phrases**

- H220 Extremely flammable gas.
- H226 Flammable liquid and vapour.
- H227 Combustible liquid.
- H280 Contains gas under pressure; may explode if heated.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H340 May cause genetic defects.
- H350 May cause cancer.
- H351 Suspected of causing cancer.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

· **Contact:** Engineering Department

· **Revision Changes:**

- v 1.0 - original release (July 3, 2015)
- v 2.0 - changes to section2 (December 31, 2015)

· **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
- 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. Gas 1: Flammable gases, Hazard Category 1
- Flam. Aerosol 1: Flammable aerosols, Hazard Category 1
- Press. Gas C: Gases under pressure: Compressed gas
- Flam. Liq. 3: Flammable liquids, Hazard Category 3
- Flam. Liq. 4: Flammable liquids, Hazard Category 4
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- Acute Tox. 1: Acute toxicity, Hazard Category 1
- Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
- 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
- Carc. 2: Carcinogenicity, Hazard Category 2
- STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
- Asp. Tox. 1: Aspiration hazard, Hazard Category 1
- Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1