Safety Data Sheet

Issue date: 20.06.2017 v 2 Last Revision Date: 20.06.2017

1 Identification

· **Product identifier**

· **Trade name: CarbonClean MV-6 Fuel System Cleaner**

· **Part number:** 400-0060
· **Application of the substance / the mixture** Engine and fuel system cleaner

· **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. 2	H225	Highly flammable liquid and vapor.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2A	H319	Causes serious eye irritation.
Carc. 2	H351	Suspected of causing cancer.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.
Aquatic Acute 3	H402	Harmful to aquatic life.
Aquatic Chronic 3	H412	Harmful 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

· **Signal word** Danger

· **Hazard-determining components of labeling:**
Naphtha (petroleum), light alkylate
· **Hazard statements**
Highly flammable liquid and vapor.
Causes skin irritation.
Causes serious eye irritation.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
Harmful to aquatic life.
Harmful to aquatic life with long lasting effects.

(Contd. on page 2)

(Contd. of page 1)

· **Precautionary statements**
Obtain special instructions before use.
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Keep container tightly closed.
Use only non-sparking tools.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
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.
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 in a well-ventilated place. Keep cool.
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:**		
64741-66-8	Naphtha (petroleum), light alkylate	25-50%
111-76-2	2-butoxyethanol	2.5-10%
108-11-2	4-methylpentan-2-ol	2.5-10%
112-80-1	oleic acid, pure	2.5-10%
95-63-6	1,2,4-trimethylbenzene	2.5-10%
64742-47-8	Distillates (petroleum), hydrotreated light	≤ 2.5%
64742-94-5	Solvent naphtha (petroleum), heavy arom.	≤ 2.5%
7664-41-7	ammonia, anhydrous	≤ 2.5%
91-20-3	naphthalene	≤ 2.5%
98-82-8	cumene	≤ 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; consult doctor in case of complaints.

· **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.

(Contd. on page 3)

(Contd. of page 2)

· **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.
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.

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.

(Contd. on page 4)

(Contd. of page 3)

· **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 (2.5-10%)	
PEL (USA)	TWA: 240 mg/m³, 50 ppm Skin
REL (USA)	TWA: 24 mg/m³, 5 ppm Skin
TLV (USA)	TWA: 97 mg/m³, 20 ppm BEI
EL (Canada)	TWA: 20 ppm
EV (Canada)	TWA: 20 ppm Skin
108-11-2 4-methylpentan-2-ol (2.5-10%)	
PEL (USA)	TWA: 100 mg/m³, 25 ppm Skin
REL (USA)	STEL: 165 mg/m³, 40 ppm TWA: 100 mg/m³, 25 ppm Skin
TLV (USA)	STEL: 167 mg/m³, 40 ppm TWA: 104 mg/m³, 25 ppm Skin
EL (Canada)	STEL: 40 ppm TWA: 25 ppm Skin
EV (Canada)	STEL: 167 mg/m³, 40 ppm TWA: 104 mg/m³, 25 ppm Skin
95-63-6 1,2,4-trimethylbenzene (2.5-10%)	
REL (USA)	TWA: 125 mg/m³, 25 ppm
TLV (USA)	TWA: 123 mg/m³, 25 ppm
64742-47-8 Distillates (petroleum), hydrotreated light (≤ 2.5%)	
EL (Canada)	TWA: 200 mg/m³ Skin

(Contd. on page 5)

(Contd. of page 4)

7664-41-7 ammonia, anhydrous (≤ 2.5%)	
PEL (USA)	TWA: 35 mg/m³, 50 ppm
REL (USA)	STEL: 27 mg/m³, 35 ppm TWA: 18 mg/m³, 25 ppm
TLV (USA)	STEL: 24 mg/m³, 35 ppm TWA: 17 mg/m³, 25 ppm
EL (Canada)	STEL: 35 ppm TWA: 25 ppm
EV (Canada)	STEL: 24 mg/m³, 35 ppm TWA: 17 mg/m³, 25 ppm
91-20-3 naphthalene (≤ 2.5%)	
PEL (USA)	TWA: 50 mg/m³, 10 ppm
REL (USA)	STEL: 75 mg/m³, 15 ppm TWA: 50 mg/m³, 10 ppm
TLV (USA)	TWA: 52 mg/m³, 10 ppm Skin; BEI
EL (Canada)	STEL: 15 ppm TWA: 10 ppm Skin; IARC 2B
EV (Canada)	STEL: 78 mg/m³, 15 ppm TWA: 52 mg/m³, 10 ppm
98-82-8 cumene (≤ 2.5%)	
PEL (USA)	TWA: 245 mg/m³, 50 ppm Skin
REL (USA)	TWA: 245 mg/m³, 50 ppm Skin
TLV (USA)	TWA: (246) NIC-0.5 mg/m³, (50) NIC-0.1 ppm NIC-A2
EL (Canada)	STEL: 75 ppm TWA: 25 ppm IARC 2B
EV (Canada)	TWA: 245 mg/m³, 50 ppm Skin

· **Ingredients with biological limit values:**	
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

· **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.

(Contd. on page 6)

(Contd. of page 5)

· **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.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
· **Form:**	Fluid
· **Color:**	Yellow
· **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:**	20 °C
· **Flammability (solid, gaseous):**	Not applicable.
· **Ignition temperature:**	
· **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 at 20 °C**	0.77-0.83
· **Vapor density**	Not determined.

(Contd. on page 7)

(Contd. of page 6)

· **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.
· **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	8971 mg/kg
Dermal	LD50	13284 mg/kg
Inhalative	LC50/4 h (vapor)	96.5 mg/L

111-76-2 2-butoxyethanol		
Oral	LD50	1414 mg/kg (gpg)
Dermal	LD50	2000 mg/kg (gpg)
Inhalative	LC50/4 h (vapor)	11.5 mg/L (gpg)
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)
95-63-6 1,2,4-trimethylbenzene		
Oral	LD50	5000 mg/kg (rat)
Inhalative	LC50/4 h (vapor)	18 mg/L (rat)

(Contd. on page 8)

(Contd. of page 7)

7664-41-7 ammonia, anhydrous		
Oral	LD50	350 mg/kg (rat)
Inhalative	LC50/4 h (vapor)	2000 mg/L (rat)
91-20-3 naphthalene		
Oral	LD50	490 mg/kg (rat)
Dermal	LD50	5000 mg/kg (rat)
98-82-8 cumene		
Oral	LD50	1400 mg/kg (rat)
Dermal	LD50	12300 mg/kg (rabbit)
Inhalative	LC50/4 h (vapor)	24.7 mg/L (mouse)

· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** Irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **IARC (International Agency for Research on Cancer)**		
111-76-2	2-butoxyethanol	3
91-20-3	naphthalene	2B
98-82-8	cumene	2B
1330-20-7	xylene	3
102-71-6	2,2',2"-nitrilotriethanol	3
71-43-2	benzene	1

· **NTP (National Toxicology Program)**		
91-20-3	naphthalene	R
98-82-8	cumene	R
71-43-2	benzene	K

· **OSHA-Ca (Occupational Safety & Health Administration)**	
71-43-2	benzene

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:**
Harmful to aquatic life with long lasting effects.

112-80-1 oleic acid, pure	
LC50 (96 h)	205 mg/L (fish)

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

(Contd. on page 9)

(Contd. of page 8)

· **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.

· **Ecotoxical effects:**

· **Remark:** Harmful to 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.

Harmful to aquatic organisms

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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

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
· **TDG**	UN1993
· **UN proper shipping name**	
· **DOT**	Flammable liquids, n.o.s. (Methyl isobutyl carbinol, 1,2,4-trimethylbenzene, 2-butoxyethanol, Distillates (petroleum), hydrotreated light)
· **TDG**	Flammable liquids, n.o.s. (Methyl isobutyl carbinol, 1,2,4-trimethylbenzene, 2-butoxyethanol, Distillates (petroleum), hydrotreated light)
· **IMDG, IATA**	FLAMMABLE LIQUID, N.O.S. (METHYL ISOBUTYL CARBINOL, 1,2,4-trimethylbenzene, 2-butoxyethanol, Distillates (petroleum), hydrotreated light)

(Contd. on page 10)

Safety Data Sheet

Issue date: 20.06.2017 v 2 Last Revision Date: 20.06.2017

Trade name: CarbonClean MV-6 Fuel System Cleaner

(Contd. of page 9)

· **Transport hazard class(es)**

· **DOT**

· **Class**	3 Flammable liquids
· **Label**	3

· **TDG**

· **Class**	3 Flammable liquids
· **Label**	3

· **IMDG, IATA**

· **Class**	3 Flammable liquids
· **Label**	3

· **Packing group**	
· **DOT, IMDG, IATA**	II
· **TDG**	II
· **Environmental hazards:**	Not applicable.
· **Special precautions for user**	Warning: Flammable liquids
· **Danger code (Kemler):**	33
· **EMS Number:**	F-E,S-E
· **Segregation groups**	Alkalis
· **Stowage Category**	B
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **IMDG**	
· **Limited quantities (LQ)**	1L
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· **UN "Model Regulation":**	UN 1993 FLAMMABLE LIQUIDS, N.O.S. (METHYL ISOBUTYL CARBINOL, 1,2,4-TRIMETHYLBENZENE, 2-BUTOXYETHANOL, DISTILLATES (PETROLEUM), HYDROTREATED LIGHT), 3, II

NA

(Contd. on page 11)

(Contd. of page 10)

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Sara**

· Section 355 (extremely hazardous substances):	
7664-41-7	ammonia, anhydrous

· Section 313 (Specific toxic chemical listings):	
111-76-2	2-butoxyethanol
95-63-6	1,2,4-trimethylbenzene
7664-41-7	ammonia, anhydrous
91-20-3	naphthalene
98-82-8	cumene
1330-20-7	xylene
71-43-2	benzene

· TSCA (Toxic Substances Control Act):
All ingredients are listed.

· **Proposition 65**

· Chemicals known to cause cancer:	
91-20-3	naphthalene
98-82-8	cumene
71-43-2	benzene

· Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:	
71-43-2	benzene

· Chemicals known to cause developmental toxicity:	
71-43-2	benzene

· **Carcinogenic categories**

· EPA (Environmental Protection Agency)		
111-76-2	2-butoxyethanol	NL
95-63-6	1,2,4-trimethylbenzene	II
91-20-3	naphthalene	C, CBD
98-82-8	cumene	D, CBD
1330-20-7	xylene	I
71-43-2	benzene	A, K/L

· TLV (Threshold Limit Value established by ACGIH)		
111-76-2	2-butoxyethanol	A3
91-20-3	naphthalene	A4
1330-20-7	xylene	A4
71-43-2	benzene	A1

(Contd. on page 12)

(Contd. of page 11)

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**	
71-43-2	benzene

· **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%)**	
111-76-2	2-butoxyethanol
108-11-2	4-methylpentan-2-ol
112-80-1	oleic acid, pure

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** 20/JUN/2017

· **Revision Changes:**
v 1.0 - initial SDS release (25/JUN/2015)
v 2.0 - revised (20/JUN/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)
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. 2: Flammable liquids – Category 2
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Carc. 2: Carcinogenicity – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3