

Safety Data Sheet

v 2

1 Identification

- **Product identifier**
 - Trade name: **Motorvac GDI Induction System Cleaner**
 - Part number: 400-2425
 - Application of the substance / the mixture engine system cleaner
- **Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
Motorvac, division of, CPS Products Canada Ltd.

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.
Carc. 2	H351	Suspected of causing cancer.
Aquatic Acute 2	H401	Toxic to aquatic life.
Aquatic Chronic 2	H411	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 GHS08 GHS09

- **Signal word** Warning
 - **Hazard-determining components of labeling:**
xylene
(R)-p-mentha-1,8-diene
Ethanol, 2,2'-iminobis-, N-tallow alkylderivs.
2-butoxyethanol
 - **Hazard statements**
Flammable liquid and vapor.

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Harmful if swallowed.
Harmful in contact with skin.
Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of causing cancer.
Toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

Obtain special instructions before use.
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.
Keep container tightly closed.
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.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Call a POISON CENTER/doctor if you feel unwell.
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.

· **Chemical components:**

1330-20-7	xylene	25-50%
111-76-2	2-butoxyethanol	10-<25%
5989-27-5	(R)-p-mentha-1,8-diene	10-<25%
108-11-2	4-methylpentan-2-ol	≤10%
61791-44-4	Ethanol, 2,2'-iminobis-, N-tallow alkylderivs.	2.5-<3%
94-91-7	n,n'-Disalicylidene-1,2-propanediamine	1-≤2.5%
64742-47-8	Distillates (petroleum), hydrotreated light	0.1-≤2.5%
91-20-3	naphthalene	0.1-≤2.5%
64742-94-5	Solvent naphtha (petroleum), heavy arom.	0.1-≤2.5%
95-63-6	1,2,4-trimethylbenzene	0.1-<2.5%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

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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:

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation continues, consult a doctor.

· 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.

· Information for doctor:

· Most important symptoms and effects, both acute and delayed

May cause eye irritation. Symptoms may include discomfort or pain, excessive blinking and tear production, with possible redness and swelling.

Headache

Dizziness

Disorientation

Nausea

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.

· 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.

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.

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· **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 from heat.

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.

Protect from heat and 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:**

1330-20-7 xylene (25-50%)

REL (USA) TWA: 435 mg/m³, 100 ppm

REL (USA) STEL: 655 mg/m³, 150 ppm

TWA: 435 mg/m³, 100 ppm

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TLV (USA)	STEL: 651 mg/m ³ , 150 ppm TWA: 434 mg/m ³ , 100 ppm BEI
EL (Canada)	STEL: 150 ppm TWA: 100 ppm
EV (Canada)	STEL: 650 mg/m ³ , 150 ppm TWA: 435 mg/m ³ , 100 ppm

111-76-2 2-butoxyethanol (10-<20%)

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

108-11-2 4-methylpentan-2-ol (≤10%)

PEL (USA)	TWA: 100 mg/m ³ , 25 ppm Skin
REL (USA)	STEL: 165 mg/m ³ , 40 ppm TWA: 100 mg/m ³ , 25 ppm Skin
TLV (USA)	STEL: 167 mg/m ³ , 40 ppm TWA: 104 mg/m ³ , 25 ppm Skin
EL (Canada)	STEL: 40 ppm TWA: 25 ppm Skin
EV (Canada)	STEL: 167 mg/m ³ , 40 ppm TWA: 104 mg/m ³ , 25 ppm Skin

64742-47-8 Distillates (petroleum), hydrotreated light (0.1-≤2.%)

EL (Canada)	TWA: 200 mg/m ³ Skin
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· Ingredients with biological limit values:

1330-20-7 xylene (25-50%)

BEI (USA)	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids
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111-76-2 2-butoxyethanol (10-<20%)

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.
Avoid contact with the eyes and skin.

· **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:** Amber colored

· **Odor:** Citrus
· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· **Melting point/Melting range:** Undetermined.
· **Boiling point/Boiling range:** 131 °C

· **Flash point:** 28 °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 %

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· Upper:	10.6 Vol %
· Vapor pressure at 20 °C:	7 hPa
· Density at 20 °C:	0.84 - 0.88 Specific Gravity
· Relative density	Not determined.
· Vapor 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:	82.2 %
· 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
acids
- **Hazardous decomposition products:**
Nitrogen oxides
Ammonia
May include, and are not limited to: oxides of carbon.
aliphatic alcohols
polyalkylglycols
Propylamine

11 Toxicological information

- **Information on toxicological effects**
 - **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

Terraclean Induction System Cleaner		
Oral	LD50	1623 mg/kg
Dermal	LD50	1409 mg/kg

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Inhalative	LC50/4 h (vapor)	12.9 mg/L (rat)
1330-20-7 xylene		
Oral	LD50	4300 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)
Inhalative	LC50/4 h (vapor)	6700 mg/L (rat)
111-76-2 2-butoxyethanol		
Oral	LD50	470 mg/kg (rat)
Dermal	LD50	400 mg/kg (rab)
Inhalative	LC50/4 h (vapor)	2.2 mg/L (rat)
5989-27-5 (R)-p-mentha-1,8-diene		
Oral	LD50	4400 mg/kg (rat)
Dermal	LD50	>5 g/Kg (rabbit)
108-11-2 4-methylpentan-2-ol		
Oral	LD50	2590 mg/kg (rat)
Dermal	LD50	3560 mg/kg (rabbit)
61791-44-4 Ethanol, 2,2'-iminobis-, N-tallow alkylderivs.		
Oral	LD50	500 mg/kg (ATE)
94-91-7 n,n'-Disalicylidene-1,2-propanediamine		
Oral	LD50	1350 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
91-20-3 naphthalene		
Oral	LD50	490 mg/kg (rat)
Dermal	LD50	5000 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)

· **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Inhalation:** May cause respiratory tract irritation.
- **Ingestion:** May be fatal if swallowed and enter airways.

· **Sensitization:**

Sensitization possible through skin contact.
May produce an allergic reaction.

· **Additional toxicological information:**

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

Harmful
Irritant

· **IARC (International Agency for Research on Cancer)**

1330-20-7	xylene	3
111-76-2	2-butoxyethanol	3
5989-27-5	(R)-p-mentha-1,8-diene	3

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91-20-3 naphthalene

2B

· **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)

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**

108-11-2 4-methylpentan-2-ol

Bioaccumulation LogPow 1.43 (-) (potential low)

· **Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Toxic for fish

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Also poisonous for fish and plankton in water bodies.

Toxic for 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.

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

14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT, IMDG, IATA · TDG 	<p>UN1993 UN1993</p>
<ul style="list-style-type: none"> · UN proper shipping name · DOT · TDG · IMDG · IATA 	<p>Flammable liquids, n.o.s. (Xylenes, Dipentene, Methyl isobutyl carbinol) Flammable liquids, n.o.s. (Xylenes, Dipentene, Methyl isobutyl carbinol) FLAMMABLE LIQUID, N.O.S. (XYLENES, DIPENTENE, METHYL ISOBUTYL CARBINOL), MARINE POLLUTANT FLAMMABLE LIQUID, N.O.S. (XYLENES, DIPENTENE, METHYL ISOBUTYL CARBINOL)</p>
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT 	<p style="text-align: center;">  3 Flammable liquids 3 </p> <p style="text-align: center;"> 3 Flammable liquids 3 </p>
<ul style="list-style-type: none"> · IMDG, IATA 	<p style="text-align: center;">  3 Flammable liquids 3 </p>
<ul style="list-style-type: none"> · Packing group · DOT, IMDG, IATA · TDG 	<p>III III</p>
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: · Special marking (ADR): 	<p>Product contains environmentally hazardous substances: (R)-p-mentha-1,8-diene Symbol (fish and tree) Yes (DOT) Symbol (fish and tree)</p>

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<ul style="list-style-type: none"> · Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category 	<p>Warning: Flammable liquids 30 F-E, S-E A</p>
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	<p>Not applicable.</p>
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	
<ul style="list-style-type: none"> · Size/package type: 	
<ul style="list-style-type: none"> · UN "Model Regulation": 	

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):**

1330-20-7	xylene
111-76-2	2-butoxyethanol
91-20-3	naphthalene
95-63-6	1,2,4-trimethylbenzene

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **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.

· **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.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

1330-20-7	xylene	I
111-76-2	2-butoxyethanol	NL
91-20-3	naphthalene	C, CBD

· TLV (Threshold Limit Value established by ACGIH)

1330-20-7	xylene	A4
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.

· 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
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· Canadian Ingredient Disclosure list (limit 1%)

111-76-2	2-butoxyethanol
5989-27-5	(R)-p-mentha-1,8-diene
108-11-2	4-methylpentan-2-ol

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 2015/10/13

· Revision Changes:

v 1.0 - original SDS release (2015/10/13)

v 2.0 - revised (2016/08/02)

· 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. Liq. 3: Flammable liquids – Category 3

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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

Carc. 2: Carcinogenicity – Category 2

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

NA