Issue date: 09/03/2015 Revision Date: 09/03/2015 v 1

1 Identification

- · Product identifier
 - Trade name: MotorVac Engine Oil Treatment
 - · Part number: 400-6220
 - · Application of the substance / the mixture engine oil treatment for GDi engines
- 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

H319 Causes serious eve irritation.

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



GHS07

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

zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)

Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts

Hazard statements

Causes serious eye irritation.

Harmful to aquatic life with long lasting effects.

· Precautionary statements

Wash thoroughly after handling.

Wear 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.

If eye irritation persists: Get medical advice/attention.

Dispose of contents/container in accordance with local/regional/national/international regulations. (Contd. on page 2)

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- · 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.

· Chemica	nical components:				
36878-20-3	bis(nonylphenyl)amine	2.5-<10%			
	Aquatic Chronic 4, H413				
90194-32-4	Benzenesulfonic acid, C10-60-alkyl derivs., sodium salts	0.1-≤2.5%			
	Eye Irrit. 2A, H319				
2215-35-2	zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	1-<2.5%			
	Acute Tox. 3, H331; Eye Dam. 1, H318; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Aquatic Acute 2, H401				
84605-29-8	Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	1-<2.5%			
	Acute Tox. 3, H331; Eye Dam. 1, H318; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Aquatic Acute 2, H401				
122-39-4	diphenylamine Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	0.25-<1%			

[·] 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; consult doctor in case of complaints.
 - After eve 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:

Swallowing is an unlikely route of exposure. DO NOT INDUCE VOMITING. Get immediate medical attention.

- · Information for doctor:
 - · 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.

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5 Fire-fighting measures

- · Extinguishing media
 - · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · Special hazards arising from the substance or mixture See section 10 for additional information.
- · Advice for firefighters
 - · Protective equipment:

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

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Personal protective equipment must be worn. Avoid contact with skin, eyes or clothing. Ventilate area if spilled in a confined space or other poorly ventilated area.

Particular danger of slipping on leaked/spilled product.

· Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

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).

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

Use with adequate ventilation. Keep containers closed and upright when not in use. Do not discharge into drains or the environment, dispose to an authorized waste collection point. Use appropriate containment to avoid environmental contamination. Avoid eye contact. Avoid repeated or prolonged skin contact. When handling, do not eat, drink, or smoke. Avoid drinking, tasting, swallowing or ingesting this product. Avoid breathing vapor. Avoid contact with eyes, skin and clothing. Avoid breathing dust, fume, gas, mist, vapors or spray. Avoid overheating. Avoid skin contact. Wash thoroughly after handling. Do not reuse empty containers. Empty container contains product residue which may exhibit hazards of product. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities

Take precautions to avoid release to the environment. Store in a cool, dry, well-ventilated area. Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store separately from incompatible materials. Keep container closed when not in use. Do not store in open, unlabeled or mislabeled containers. See section 10 for incompatible materials.

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- · 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:

Maximum Storage Temperature: 45 ℃, 113 °F

· 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:

122-39-4 diphenylamine (0.25-<1%)

REL (USA) TWA: 10 mg/m³
TLV (USA) TWA: 10 mg/m³
EL (Canada) TWA: 10 mg/m³
EV (Canada) TWA: 10 mg/m³

- · Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
 - · Personal protective equipment:
 - · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

· Protection of hands:

Nitrile. Neoprene.

Long sleeve shirt is recommended. Launder contaminated clothing before reuse.

· 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-brown

· Odor: Mild

· Odour threshold: Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range:
 Boiling point/Boiling range:
 Undetermined.
 Undetermined.

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	(Contd. of pag
· Flash point:	204 ℃
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
· Lower:	Not determined.
· Upper:	Not determined.
· Vapor pressure:	Not determined.
· Density at 20 ℃:	0.918 g/cm ³
 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/wa	ater): Not determined.
· Viscosity:	
· Dynamic:	Not determined.
· Kinematic at 40 °C:	258 mm²/s
· Solvent content:	
· Organic solvents:	0.0 %
· Solids content:	0.5 %
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:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: Oxidizing agents. Halogens and halogenated compounds.
- · Hazardous decomposition products:

Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Hydrogen sulfide and alkyl mercaptans and sulfides may also be released. Under combustion conditions, oxides of the following elements will be formed: calcium, sulfur.

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11 Toxicological information

- · Information on toxicological effects
 - · Acute toxicity:

	Acute	toxicity:					
	· LD/LC50 values that are relevant for classification:						
	Oral	LD50	>10000 mg/kg (rat)				
	Dermal	LD50	>2000 mg/kg (rabbit)				
	Inhalative	LC50/4 h	>200 mg/L (rat)				
	36878-20-3 bis(nonylphenyl)amine						
Oral LD50 >5000 mg/kg (rat)							
	Dermal	LD50	>2000 mg/kg (rat)				
	2215-35-2 zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)						
	Oral	LD50	2230 mg/kg (rat)				
	Dermal	LD50	>25000 mg/kg (rat)				
	Inhalative	LC50/4 h	2.3 mg/L (rat)				
	84605-29-8 Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters salts						
	Oral	LD50	4468 mg/kg (rat)				
	Dermal	LD50	>2000 mg/kg (rat)				
	Inhalative	LC50/4 h	>2.3 mg/L (rat)				
	122-39-4 diphenylamine						
	Oral	LD50	>800 mg/kg (rat)				
	Dermal	LD50	300 mg/kg (ATE)				
	Inhalative	LC50/4 h	3 mg/L (ATE)				

· Primary irritant effect:

on the skin:

May cause mild skin irritation. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.

- · on the eye: May cause eye irritation.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:
 - · Carcinogenic categories
 - · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

NA

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12 Ecological information

Toxicity

· Aquatic toxicity:

Harmful to aquatic life with long lasting effects.

LC50 (96 h) 10-100 mg/L (fathead)

· Persistence and degradability

36878-20-3 bis(nonylphenyl)amine

Persistance and Degradability 0%, 28 d (-) (Sturm Test)

2215-35-2 zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)

Persistance and Degradability 1.5%, 28 d (-) (Sturm Test)

84605-29-8 Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts

Persistance and Degradability 1.5%, 28 d (-) (Sturm test)

Behavior in environmental systems:

· Bioaccumulative potential

36878-20-3 bis(nonylphenyl)amine

Bioaccumulation BCF 7.3 (-) (Octanol-Water Coefficient)

2215-35-2 zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)

Bioaccumulation BCF 2.2 (-) (Octanol-Water Coefficient)

84605-29-8 Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts

Bioaccumulation BCF 0.6 (-) (Octanol-Water Coefficient)

122-39-4 diphenylamine

Bioaccumulation BCF 3.4 (-) (Octanol-Water Coefficient)

- · 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.

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· Uncleaned packagings:

• Recommendation: Disposal must be made according to official regulations.

4 Transport information		
· UN-Number · DOT, ADN, IMDG, IATA	Not Regulated	
· UN proper shipping name · DOT, ADN, IMDG, IATA	Not Regulated	
· Transport hazard class(es)		
· DOT, IMDG, IATA · Class	Not Regulated	
· Packing group · DOT, IMDG, IATA	Not Regulated	
· Environmental hazards: · Marine pollutant:	No	
· Special precautions for user	Not applicable.	
· Transport in bulk according to Annex MARPOL73/78 and the IBC Code	x II of Not applicable.	
· UN "Model Regulation":	Not Regulated	

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):

122-39-4 diphenylamine

· 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.

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· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

122-39-4 diphenylamine

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%)

122-39-4 diphenylamine

· Canadian Ingredient Disclosure list (limit 1%)

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



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

zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)

Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts

· Hazard statements

Causes serious eve irritation.

Harmful to aquatic life with long lasting effects.

Precautionary statements

Wash thoroughly after handling.

Wear 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.

If eye irritation persists: Get medical advice/attention.

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

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.

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· Relevant phrases

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H401 Toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

· Contact: Engineering Department

- · Issue Date September 3, 2015
- · Revision Changes: v 1.0 original SDS release (September 3, 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

Acute Tox. 3: Acute toxicity, Hazard Category 3

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Aguatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

Aquatic Acute 2: Hazardous to the aquatic environment - AcuteHazard, Category 2

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

Aquatic Chronic 4: Hazardous to the aquatic environment - Chronic Hazard, Category 4

N/