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

· 1.1 Product identifier

• Product name: Motorvac Induction System Cleaner

· Part number: 400-2425

- **1.2 Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
 - Application of the substance / the mixture engine 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 Tel: (905) 615-8620 customerservice@motorvac.com • 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, Liq, 3 H226 Flammable liquid and vapour. 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. 2 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.

· 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



- · Signal word Warning
- · Hazard-determining components of labelling:
- xylene (R)-p-mentha-1,8-diene

Ethanol, 2,2'-iminobis-, N-tallow alkylderivs.

Issue date: 02.08.2016

Version 2

Last Revision: 02.08.2016

Product name: Motorvac Induction System Cleaner

	(Contd. of page 1)
2-butoxyethanol	
 Hazard statemer 	nts
H226	Flammable liquid and vapour.
H302+H312+H33	32 Harmful if swallowed, in contact with skin or if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H401+H411	Toxic to aquatic life and toxic to aquatic life with long lasting effects.
 Precautionary st 	tatements
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition
	sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P233	Keep container tightly closed.
P273	Avoid release to the environment.
P305+P351+P33	8 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
	lenses, if present and easy to do. Continue rinsing.
P303+P361+P35	3 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse
	skin with water/shower.
P312	Call a POISON CENTER/doctor if you feel unwell.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/ international regulations.
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 com 	ponents:	
CAS: 1330-20-7 EINECS: 215-535-7	xylene Flam. Liq. 3, H226; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	25-50%
CAS: 111-76-2 EINECS: 203-905-0	2-butoxyethanol Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319	10-<25%
CAS: 5989-27-5 EINECS: 227-813-5	(R)-p-mentha-1,8-diene Flam. Liq. 3, H226; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315; Skin Sens. 1, H317	10-<25%
CAS: 108-11-2 EINECS: 203-551-7	4-methylpentan-2-ol Flam. Liq. 3, H226; STOT SE 3, H335	≤10%
CAS: 61791-44-4 EINECS: 263-177-5	Ethanol, 2,2'-iminobis-, N-tallow alkylderivs. Acute Tox. 4, H302	2.5-<3%
	(Co	ntd. on page 3)

Version 2

Last Revision: 02.08.2016

Product name: Motorvac Induction System Cleaner

		Contd. of page 2)
CAS: 94-91-7	n,n'-Disalicylidene-1,2-propanediamine	1-≤2.5%
EINECS: 202-374-2	Flam. Liq. 3, H226; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 64742-47-8	Distillates (petroleum), hydrotreated light	0.1-≤2.5%
EINECS: 265-149-8	Flam. Liq. 3, H226; Asp. Tox. 1, H304	
CAS: 91-20-3	naphthalene	0.1-≤2.5%
EINECS: 202-049-5	Carc. 2, H351; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302	
CAS: 64742-94-5	Solvent naphtha (petroleum), heavy arom.	0.1-≤2.5%
EINECS: 265-198-5	Asp. Tox. 1, H304	
CAS: 95-63-6	1,2,4-trimethylbenzene	0.1-<2.5%
EINECS: 202-436-9	Flam. Liq. 3, H226; Aquatic Chronic 2, H411; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	
 . Additional inform	pation: For the wording of the listed bazard phrases refer to section 1	6

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 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 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: DO NOT INDUCE VOMITING. Get immediate medical attention.

· 4.2 Most important symptoms and effects, both acute and delayed

May cause eye irritation. Symptons 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.

· 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.

(Contd. on page 4)

Version 2

Product name: Motorvac Induction System Cleaner

(Contd. of page 3)

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:

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.

SECTION 6: Accidental release measures

 6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.

· 6.2 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 smokina.

Take precautions to avoid release to the environment. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

· 6.3 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

- · 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

Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

- · Information about fire and explosion protection: Keep ignition sources away - Do not smoke. Protect from heat. Protect against electrostatic charges.
- · 7.2 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 container tightly sealed.

Protect from heat and direct sunlight.

(Contd. on page 5)

GB

Issue date: 02.08.2016

Version 2

Last Revision: 02.08.2016

Product name: Motorvac Induction System Cleaner

(Contd. of page 4)

· 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.

· Ing	gredients with limit values that require monitoring at the workplace:
1330-	20-7 xylene (25-50%)
WEL	Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV
111-7	6-2 2-butoxyethanol (10-<20%)
WEL	Short-term value: 246 mg/m ³ , 50 ppm Long-term value: 123 mg/m ³ , 25 ppm Sk, BMGV
108-1	1-2 4-methylpentan-2-ol (≤10%)
WEL	Short-term value: 170 mg/m ³ , 40 ppm Long-term value: 106 mg/m ³ , 25 ppm Sk
60-29	-7 diethyl ether (15-<25%%)
WEL	Short-term value: 620 mg/m³, 200 ppm Long-term value: 310 mg/m³, 100 ppm
	 Ingredients with biological limit values:
1330-	20-7 xylene (25-50%)
BMG	 / 650 mmol/mol creatinine Octanol-Water: urine 0.1: post shift 7.3: methyl hippuric acid
111-7	6-2 2-butoxyethanol (10-<20%)
BMG	 / 240 mmol/mol creatinine Octanol-Water: urine 0.1: post shift 7.3: butoxyacetic acid
	Additional information: The lists valid during the making were used as basis.
· Pe	Aposure controls ersonal 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.
•	Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive o longer exposure use self-contained respiratory protective device.
	(Contd. on page 6

Version 2

Product name: Motorvac Induction System Cleaner

(Contd. of page 5)

· 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.

SECTION 9: Physical and chemical properties

 Appearance: Form: Fluid Colour: Amber coloured Odour: Citrus Odour threshold: Not determined. pH-value: Not determined. Change in condition Melting point/Melting range: Undetermined. Change in condition Melting point/Melting range: 131 °C Flash point: 28 °C Flammability (solid, gaseous): Not applicable. Ignition temperature: 240 °C Decomposition temperature: Not determined. Self-igniting: Product is not selfigniting. Danger of explosion: Product is not selfigniting. Explosion limits: Lower: 0.7 Vol % Upper: 10.6 Vol % Vapour pressure at 20 °C: 7 hPa Density at 20 °C: 0.84 - 0.88 Specific Gravity Relative density Not determined. Vapour density Not determined.<!--</th--><th>• 9.1 Information on basic physical</th><th>and chemical properties</th>	• 9.1 Information on basic physical	and chemical properties
· Form: Fluid · Colour: Amber coloured · Odour: Citrus · Odour threshold: Not determined. · pH-value: Not determined. · PH-value: Not determined. · Melting point/Melting range: Undetermined. · Boiling point/Melting range: 131 °C · Flash point: 28 °C · Flammability (solid, gaseous): Not applicable. · Ignition temperature: 240 °C · Decomposition temperature: Not determined. · Self-igniting: Product is not selfigniting. · Danger of explosion: Product is not explosive. However, formation of explos air/vapour mixtures are possible. · Explosion limits: 0.7 Vol % · Lower: 0.7 Vol % · Upper: 10.6 Vol % · Vapour pressure at 20 °C: 7 hPa · Density at 20 °C: 0.84 - 0.88 Specific Gravity · Relative density Not determined. · Vapour density Not determined. · Vapour density Not determined. · Solubility in / Miscibility with Not determined.	· General Information	
· Colour: Amber coloured · Odour: Citrus · Odour threshold: Not determined. · pH-value: Not determined. · Change in condition Undetermined. · Melting point/Melting range: 131 °C · Flash point: 28 °C · Flash point: 240 °C · Ignition temperature: 240 °C · Decomposition temperature: Not determined. · Self-igniting: Product is not selfigniting. · Danger of explosion: Product is not explosive. However, formation of explosive. · Lower: 0.7 Vol % · Upper: 10.6 Vol % · Vapour pressure at 20 °C: 7 hPa · Density at 20 °C: 0.84 - 0.88 Specific Gravity · Relative density Not determined. · Vapour density Not determined. · Vapour density Not determined. · Vapour density Not determined. · Solubility in / Miscibility with Not determined.	••	El.: J
 Odour: Citrus Not determined. pH-value: Not determined. Change in condition Melting point/Melting range: Undetermined. Change in condition 131 °C Flash point: 28 °C Flammability (solid, gaseous): Not applicable. Ignition temperature: 240 °C Decomposition temperature: Not determined. Self-igniting: Product is not selfigniting. Danger of explosion: Product is not selfigniting. Explosion limits: Lower: 0.7 Vol % Upper: 10.6 Vol % Vapour pressure at 20 °C: 7 hPa Density at 20 °C: 0.84 - 0.88 Specific Gravity Kelative density Not determined. Vapour density Not determined. Solubility in / Miscibility with 	-	
• Odour threshold: Not determined. • pH-value: Not determined. • Change in condition Undetermined. • Metting 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. • Self-igniting: Product is not selfigniting. • Danger of explosion: Product is not explosive. However, formation of explos air/vapour mixtures are possible. • Explosion limits: 0.7 Vol % • Upper: 10.6 Vol % • Vapour pressure at 20 °C: 7 hPa • Density at 20 °C: 0.84 - 0.88 Specific Gravity • Relative density Not determined. • Vapour density Not determined. • Vapour density Not determined. • Solubility in / Miscibility with Vetermined.		
• 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. • Self-igniting: Product is not selfigniting. • Danger of explosion: Product is not explosive. However, formation of explos air/vapour mixtures are possible. • Explosion limits: 0.7 Vol % • Upper: 10.6 Vol % • Vapour pressure at 20 °C: 7 hPa • Density at 20 °C: 0.84 - 0.88 Specific Gravity • Relative density Not determined. • Vapour density Not determined. • Solubility in / Miscibility with Vetermined.		
 Change in condition Melting point/Melting range: Boiling point/Boiling range: 131 °C Flash point: 28 °C Flammability (solid, gaseous): Not applicable. Ignition temperature: 240 °C Decomposition temperature: Not determined. Self-igniting: Product is not selfigniting. Danger of explosion: Product is not explosive. However, formation of explosialit/vapour mixtures are possible. Explosion limits: Lower: 0.7 Vol % Upper: 10.6 Vol % Vapour pressure at 20 °C: 7 hPa Density at 20 °C: 0.84 - 0.88 Specific Gravity Relative density Not determined. Vapour density Not determined. Evaporation rate Not determined. 		
· Meiting 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. · Self-igniting: Product is not selfigniting. · Danger of explosion: Product is not explosive. However, formation of explos air/vapour mixtures are possible. · Explosion limits: 0.7 Vol % · Upper: 10.6 Vol % · Vapour pressure at 20 °C: 7 hPa · Density at 20 °C: 0.84 - 0.88 Specific Gravity · Relative density Not determined. · Vapour density Not determined. · Solubility in / Miscibility with Vetermined.	•	Not determined.
· Boiling point/Boiling range: 131 °C · Flash point: 28 °C · Flammability (solid, gaseous): Not applicable. · Ignition temperature: 240 °C · Decomposition temperature: Not determined. · Self-igniting: Product is not selfigniting. · Danger of explosion: Product is not explosive. However, formation of explos air/vapour mixtures are possible. · Explosion limits: 0.7 Vol % · Upper: 10.6 Vol % · Vapour pressure at 20 °C: 7 hPa · Density at 20 °C: 0.84 - 0.88 Specific Gravity · Relative density Not determined. · Vapour density Not determined. · Solubility in / Miscibility with Not determined.		
· Flash point: 28 °C · Flammability (solid, gaseous): Not applicable. · Ignition temperature: 240 °C · Decomposition temperature: Not determined. · Self-igniting: Product is not selfigniting. · Danger of explosion: Product is not explosive. However, formation of explose air/vapour mixtures are possible. · Explosion limits: 0.7 Vol % · Upper: 10.6 Vol % · Vapour pressure at 20 °C: 7 hPa · Density at 20 °C: 0.84 - 0.88 Specific Gravity · Relative density Not determined. · Vapour density Not determined. · Solubility in / Miscibility with		
 Flammability (solid, gaseous): Not applicable. Ignition temperature: 240 °C Decomposition temperature: Not determined. Self-igniting: Product is not selfigniting. Danger of explosion: Product is not explosive. However, formation of explos air/vapour mixtures are possible. Explosion limits: Lower: 0.7 Vol % Upper: 10.6 Vol % Vapour pressure at 20 °C: 7 hPa Density at 20 °C: 0.84 - 0.88 Specific Gravity Relative density Not determined. Vapour density Not determined. Evaporation rate Not determined. Solubility in / Miscibility with 	 Boiling point/Boiling range: 	: 131 °C
• Ignition temperature: 240 °C • Decomposition temperature: Not determined. • Self-igniting: Product is not selfigniting. • Danger of explosion: Product is not explosive. However, formation of explos air/vapour mixtures are possible. • Explosion limits: 0.7 Vol % • Lower: 0.7 Vol % • Upper: 10.6 Vol % • Vapour pressure at 20 °C: 7 hPa • Density at 20 °C: 0.84 - 0.88 Specific Gravity • Relative density Not determined. • Vapour density Not determined. • Solubility in / Miscibility with	· Flash point:	28 °C
• Decomposition temperature: Not determined. • Self-igniting: Product is not selfigniting. • Danger of explosion: Product is not explosive. However, formation of explos air/vapour mixtures are possible. • Explosion limits: 0.7 Vol % • Lower: 0.7 Vol % • Upper: 10.6 Vol % • Vapour pressure at 20 °C: 7 hPa • Density at 20 °C: 0.84 - 0.88 Specific Gravity • Relative density Not determined. • Vapour density Not determined. • Solubility in / Miscibility with Vetermined.	 Flammability (solid, gaseous): 	Not applicable.
• Self-igniting: Product is not selfigniting. • Danger of explosion: Product is not explosive. However, formation of explose air/vapour mixtures are possible. • Explosion limits: 0.7 Vol % • Lower: 0.7 Vol % • Upper: 10.6 Vol % • Vapour pressure at 20 °C: 7 hPa • Density at 20 °C: 0.84 - 0.88 Specific Gravity • Relative density Not determined. • Vapour density Not determined. • Solubility in / Miscibility with Vetermined.	· Ignition temperature:	240 °C
• Danger of explosion: Product is not explosive. However, formation of explosinal air/vapour mixtures are possible. • Explosion limits: 0.7 Vol % • Lower: 0.7 Vol % • Upper: 10.6 Vol % • Vapour pressure at 20 °C: 7 hPa • Density at 20 °C: 0.84 - 0.88 Specific Gravity • Relative density Not determined. • Vapour density Not determined. • Solubility in / Miscibility with	Decomposition temperature	e: Not determined.
air/vapour mixtures are possible. • Explosion limits: • Lower: 0.7 Vol % • Upper: 10.6 Vol % • Vapour pressure at 20 °C: 7 hPa • Density at 20 °C: 0.84 - 0.88 Specific Gravity • Relative density Not determined. • Vapour density Not determined. • Solubility in / Miscibility with Vatermined.	· Self-igniting:	Product is not selfigniting.
 Explosion limits: Lower: 0.7 Vol % Upper: 10.6 Vol % Vapour pressure at 20 °C: 7 hPa Density at 20 °C: 0.84 - 0.88 Specific Gravity Relative density Not determined. Vapour density Not determined. Evaporation rate Not determined. Solubility in / Miscibility with 	· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Lower: 0.7 Vol % · Upper: 10.6 Vol % · Vapour pressure at 20 °C: 7 hPa · Density at 20 °C: 0.84 - 0.88 Specific Gravity · Relative density Not determined. · Vapour density Not determined. · Vaporation rate Not determined.	· Explosion limits:	
· Upper: 10.6 Vol % · Vapour pressure at 20 °C: 7 hPa · Density at 20 °C: 0.84 - 0.88 Specific Gravity · Relative density Not determined. · Vapour density Not determined. · Evaporation rate Not determined. · Solubility in / Miscibility with Vation of the second of	-	0.7 Vol %
• Density at 20 °C: 0.84 - 0.88 Specific Gravity • Relative density Not determined. • Vapour density Not determined. • Evaporation rate Not determined. • Solubility in / Miscibility with		
Relative density Not determined. Vapour density Not determined. Evaporation rate Not determined. Solubility in / Miscibility with	· Vapour pressure at 20 °C:	7 hPa
Relative density Not determined. Vapour density Not determined. Evaporation rate Not determined. Solubility in / Miscibility with	· Density at 20 °C:	0.84 - 0.88 Specific Gravity
Evaporation rate Not determined. Solubility in / Miscibility with		
· Solubility in / Miscibility with		Not determined.
		Not determined.
• water: Not miscible or difficult to mix	· Solubility in / Miscibility with	
	· water:	Not miscible or difficult to mix.
(Contd. on pa		(Contd. on page 7

Version 2

Last Revision: 02.08.2016

Product name: Motorvac Induction System Cleaner

		(Contd. of page
· Partition coefficient (n-octar	ol/water): Not determined.	
· Viscosity:		
· Dynamic:	Not determined.	
· Kinematic:	Not determined.	
· Solvent content:		
 Organic solvents: 	82.2 %	
· 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
- acids

• 10.6 Hazardous decomposition products: Nitrogen oxides Ammonia May include, and are not limited to: oxides of carbon. aliphatic alcohols polyalkylglycols Propylamine

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

Acute toxicity

Harmful if swallowed, in contact with skin or if inhaled.

Terraclean Induction System Cleaner		
Oral	LD50	1623 mg/kg
Dermal	LD50	1409 mg/kg
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)
111-76-22	2-butoxyethanol	
Oral	LD50	470 mg/kg (rat)
Dermal	LD50	400 mg/kg (rab)
		(Contd. on page

Issue date: 02.08.2016

Version 2

Last Revision: 02.08.2016

Product name: Motorvac Induction System Cleaner

Inholotivo	LCE0/4 h (vapar)		(Contd. of pag
	LC50/4 h (vapor)		
	(R)-p-mentha-1,8 LD50		
Oral		4400 mg/kg (rat)	
Dermal	LD50	>5 g/Kg (rabbit)	
	4-methylpentan-2		
Oral	LD50	2590 mg/kg (rat)	
Dermal	LD50	3560 mg/kg (rabbit)	
		inobis-, N-tallow alkylderivs.	
Oral	LD50	500 mg/kg (ATE)	
-	•	1,2-propanediamine	
Oral	LD50	1350 mg/kg (rat)	
Dermal	LD50	>2000 mg/kg (rat)	
	aphthalene		
Oral	LD50	490 mg/kg (rat)	
Dermal	LD50	5000 mg/kg (rat)	
95-63-6 1,	2,4-trimethylbenz	rene	
Oral	LD50	5000 mg/kg (rat)	
Inhalative	LC50/4 h (vapor)	18 mg/L (rat)	
• I • Res May • CMI • C • C • C • C • STC • STC	ngestion: May be piratory or skin s produce an allerge cause an allergic R effects (carcino Germ cell mutage Carcinogenicity Suspected of caus Reproductive tox DT-single exposu DT-repeated expo	ause respiratory tract irritation. fatal if swallowed and enter airways. ensitisation ic reaction. skin reaction. ogenity, mutagenicity and toxicity for reproduction) nicity Based on available data, the classification criteria are	ot met. met.
SECTIO	N 12: Ecologio	al information	
444 70 0 0	2-butoxyethanol		
111-76-2 4	2-Duloxyelhanoi		

LC50 (96 h) (static) 1490 mg/L (Lepomis macrochirus)

(Contd. on page 9)

Issue date: 02.08.2016

Version 2

Last Revision: 02.08.2016

Product name: Motorvac Induction System Cleaner

(Contd. of page 8)

5989-27-5 (R)-p-mentha-1,8-diene

LC50 (96 h) 0.619-0.796 mg/L (Pimephales promelas)

• **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)

• 12.4 Mobility in soil No further relevant information available.

Ecotoxical effects:

• Remark: Toxic for fish

· Additional ecological information:

· General notes:

Water hazard class 1 (German Regulation) (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

· 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.

14.1 UN-Number	
· ADR, IMDG, IATA	UN1993
14.2 UN proper shipping name	
ADR	UN1993 FLAMMABLE LIQUID, N.O.S
	(DIETHYL ETHER(ETHYL ETHER), XYLENES
	ENVIRONMENTALLY HAZARDOUS
·IMDG	FLAMMABLE LIQUID, N.O.S. (XYLENES
	DIPENTENE, METHYL ISOBUTYL CARBINOL
	MARINE POLLUTANT
	FLAMMABLE LIQUID, N.O.S. (XYLENES
	DIPENTENE, METHYL ISOBUTYL CARBINOL)

Issue date: 02.08.2016

Version 2

Last Revision: 02.08.2016

Product name: Motorvac Induction System Cleaner (Contd. of page 9) · 14.3 Transport hazard class(es) · ADR · Class 3 (F1) Flammable liquids. Flammable liquids. · Label 3 · IMDG, IATA · Class 3 Flammable liquids. · Label 3 · 14.4 Packing group Ш · ADR, IMDG, IATA · 14.5 Environmental hazards: Product contains environmentally hazardous substances: (R)-p-mentha-1,8-diene Symbol (fish and tree) · Marine pollutant: · Special marking (ADR): Symbol (fish and tree) · 14.6 Special precautions for user Warning: Flammable liquids. · Danger code (Kemler): 30 · EMS Number: F-E,S-E · Stowage Category А · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable. · Transport/Additional information: · ADR · Limited quantities (LQ) 5L · Transport category 3 · Tunnel restriction code D/E · IMDG · Limited quantities (LQ) 5L • Excepted quantities (EQ) Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml (Contd. on page 11) GB

Issue date: 02.08.2016

Version 2

Last Revision: 02.08.2016

Product name: Motorvac Induction System Cleaner

(Contd. of page 10)

· UN "Model Regulation":

UN 1993 FLAMMABLE LIQUID, N.O.S. (DIETHYL ETHER (ETHYL ETHER), XYLENES) 3, II, ENVIRONMENTALLY HAZARDOUS

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

· Named dangerous substances - ANNEX I None of the ingredients is listed.

- \cdot Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- \cdot Qualifying quantity (tonnes) for the application of upper-tier requirements $500\ t$

· 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: 2015/10/13

· Relevant phrases

H226 Flammable liquid and vapour.

H290 May be corrosive to metals.

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.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

Contact: Engineering Department

· 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

Version 2

Last Revision: 02.08.2016

Product name: Motorvac Induction System Cleaner

(Contd. of page 11) 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 Acute Tox. 4: Acute toxicity – Category 4 Skin Irrit. 2: Skin corrosion/irritation – Category 2 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2 Skin Sens. 1: Skin sensitisation – Category 1 Carc. 2: Carcinogenicity - Category 2 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 Asp. Tox. 1: Aspiration hazard - Category 1 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2 GP