Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 08/22/2014 Version:

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

Product identifier

Product form : Mixture

: FVP NON-CHLORINATED BRAKE CLEANER 10% VOC 15 OZ. Trade name

Product code : FVPNCBCVOC10-15

Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Brake Parts Cleaner

Details of the supplier of the safety data sheet

Factory Motor Parts

1380 Corporate center Curve Ste. 200

Eagan, MN 55121 (866) 387-3343

Emergency telephone number

Emergency number : CHEMTREC 24 Hour 1-800-424-9300, 1-703-527-3887 (International)

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification (GHS-US)

Flam. Aerosol 2 H223 Compressed gas H280 Skin Irrit. 2 Eve Irrit. 2A H319 Repr. 2 H361 STOT SE 1 H370 STOT SE 3 H336

Full text of H-phrases: see section 16

Precautionary statements (GHS-US)

Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



GHS02

GHS04





GHS07

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) H223 - Flammable aerosol

H280 - Contains gas under pressure; may explode if heated

H315 - Causes skin irritation H319 - Causes serious eye irritation H336 - May cause drowsiness or dizziness

H361 - Suspected of damaging fertility or the unborn child

H370 - Causes damage to organs

P201 - Obtain special instructions P202 - Do not handle until all safety precautions have been read and understood

P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking

P211 - Do not spray on an open flame or other ignition source P251 - Pressurized container: Do not pierce or burn, even after use

P260 - Do not breathe dust, fumes, gas, mist, vapor spray P261 - Avoid breathing dust,fume,gas,mist,vapor spray P264 - Wash affected areas thoroughly after handling P270 - Do not eat, drink or smoke when using this product P271 - Use only outdoors or in a well-ventilated area

P280 - Wear protective gloves, protective clothing, eye protection, face protection

P302+P352 - If on skin: Wash with plenty of soap and water

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing P307+P311 - If exposed: Call a poison center/doctor

P308+P313 - If exposed or concerned: Get medical advice/attention P312 - Call a POISON CONTROL CENTER, doctor, if you feel unwell. P321 - Specific treatment: See section 4.1 on SDS

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P332+P313 - If skin irritation occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention P362 - Take off contaminated clothing and wash before reuse

P403+P233 - Store in a well-ventilated place. Keep container tightly closed

P405 - Store locked up

P410+P403 - Protect from sunlight. Store in a well-ventilated place

P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

2.3. Other hazards

Other hazards not contributing to the classification

: Contains gas under pressure; may explode if heated.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Acetone	(CAS No) 67-64-1	70 - 85	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Carbon Dioxide, Liquefied, Under Pressure	(CAS No) 124-38-9	10 - 30	Compressed gas, H280
Heptane, Branched Cyclic	(CAS No) 426260-76-6	5.7504 - 5.99	Flam. Liq. 1, H224 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
Methanol	(CAS No) 67-56-1	1 - 5	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:dust,mist), H331 STOT SE 1, H370
Heptane	(CAS No) 142-82-5	1.4975 - 2.6955	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Toluene	(CAS No) 108-88-3	0.0599 - 0.2396	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical

advice/attention. Call a POISON CENTER or doctor/physician.

First-aid measures after inhalation : Cough. Remove to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash

with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs:

Get medical advice/attention.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water

for several minutes. Obtain medical attention if pain, blinking or redness persist. Direct contact

with the eyes is likely to be irritating.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/injuries : Suspected of damaging fertility or the unborn child. Causes damage to organs.

Symptoms/injuries after inhalation : May cause irritation or asthma-like symptoms. Shortness of breath.

Symptoms/injuries after skin contact : May cause slight irritation . Itching. Red skin. Causes skin irritation.

Symptoms/injuries after eye contact : Inflammation/damage of the eye tissue. Irritation of the eye tissue. Redness of the eye tissue.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

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5.1. **Extinguishing media**

: Foam. Dry powder. Carbon dioxide. Water spray. Sand. Suitable extinguishing media

Unsuitable extinguishing media : Do not use a heavy water stream.

Special hazards arising from the substance or mixture

Fire hazard : Flammable aerosol.

Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns

and injuries.

Advice for firefighters

Firefighting instructions Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment. DO NOT fight fire when fire

reaches explosives. Evacuate area.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Aerosol Level 2.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : No naked lights. No smoking. Isolate from fire, if possible, without unnecessary risk. Remove

ignition sources. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Safety glasses.

Emergency procedures : Evacuate unnecessary personnel.

For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing dust, fume, gas, mist, vapor spray.

: Ventilate area. **Emergency procedures**

Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Dam up the liquid spill. Contain released substance, pump into suitable containers. Plug the leak,

cut off the supply.

: Store away from other materials. Methods for cleaning up

Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

Precautions for safe handling

: Hazardous waste due to potential risk of explosion. Pressurized container: Do not pierce or burn, Additional hazards when processed

even after use.

Precautions for safe handling Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not spray on an open flame or other ignition source. Obtain special instructions . Do not handle until all safety precautions have been read and understood. Do not breathe

dust,fumes,gas,mist,vapor spray.

Hygiene measures : Wash contaminated clothing before reuse. Wash affected areas thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Storage conditions Keep only in the original container in a cool, well ventilated place away from : Keep container

closed when not in use. Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep in

fireproof place.

Incompatible products Strong bases. Strong acids.

Incompatible materials Sources of ignition. Direct sunlight. Heat sources.

Storage area : Store in a well-ventilated place.

Specific end use(s)

Follow Label Directions.

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**

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Benzene (71-43-2)				
USA ACGIH	ACGIH TWA (ppm)	1 ppm		
USA ACGIH	ACGIH STEL (ppm)	5 ppm		
USA ACGIH	ACGIH Ceiling (ppm)	25 ppm		
USA OSHA	OSHA PEL (TWA) (ppm)	1 ppm		
USA OSHA	OSHA PEL (Ceiling) (ppm)	5 ppm		
Toluene (108-88-3)				
USA ACGIH	ACGIH TWA (mg/m³)	75 mg/m³		
USA ACGIH	ACGIH TWA (ppm)	20 ppm		
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm		
USA OSHA	OSHA PEL (Ceiling) (ppm)	300 ppm		
Heptane (142-82-5)	·	·		
USA ACGIH	ACGIH TWA (ppm)	400 ppm		
USA ACGIH	ACGIH STEL (ppm)	400 ppm		
	(400000 =0.0)			
Heptane, Branched Cycli USA ACGIH	ACGIH TWA (ppm)	400 ppm		
USA ACGIH	ACGIH STEL (ppm)	500 ppm		
USA OSHA	OSHA PEL (TWA) (ppm)	500 ppm		
OUN COLIN	OOTAT EE (TWA) (ppin)	300 ррп		
•	ed, Under Pressure (124-38-9)			
USA ACGIH	ACGIH TWA (mg/m³)	9000 mg/m³		
USA ACGIH	ACGIH TWA (ppm)	5000 ppm		
USA ACGIH	ACGIH STEL (mg/m³)	54000		
USA ACGIH	ACGIH STEL (ppm)	30000 ppm		
USA OSHA	OSHA PEL (TWA) (mg/m³)	9000 mg/m³		
USA OSHA	OSHA PEL (TWA) (ppm)	5000 ppm		
Acetone (67-64-1)				
USA ACGIH	ACGIH TWA (mg/m³)	1188 mg/m³		
USA ACGIH	ACGIH TWA (ppm)	500 ppm		
USA ACGIH	ACGIH STEL (mg/m³)	1782 mg/m³		
USA ACGIH	ACGIH STEL (ppm)	750 ppm		
USA OSHA	OSHA PEL (TWA) (mg/m³)	2400 mg/m³		
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm		
Methanol (67-56-1)				
USA ACGIH	ACGIH TWA (mg/m³)	262 mg/m³		
USA ACGIH	ACGIH TWA (ppm)	200 ppm		
USA ACGIH	ACGIH STEL (mg/m³)	328 mg/m³		
USA ACGIH	ACGIH STEL (ppm)	250 ppm		
USA OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m³		
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm		
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8.2. Exposure controls

Appropriate engineering controls : Local exhaust venilation, vent hoods . Ensure good ventilation of the work station.

Personal protective equipment : Gloves. Safety glasses. Avoid all unnecessary exposure.



Hand protection : Wear protective gloves.

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Eye protection : Chemical goggles or safety glasses. Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is

recommended.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Gas
Appearance : Liquid.

Color : Colourless to light yellow.

Odor : Acetone odour. Solvent-like odour.

Odor threshold : No data available pH : No data available Relative evaporation rate (butyl acetate=1) : No data available

Melting point : -95 °C (Lowest Component)

Freezing point : No data available

Boiling point : 56 °C (Lowest Component)

Flash point : -18 °C (Lowest Component)

Critical temperature : 235 °C (Lowest Component)

Auto-ignition temperature : 465 °C (Lowest Component)

Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : No data available
Relative vapor density at 20 °C : No data available

Relative density : 0.783

Solubility : Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in dimethyl ether. Soluble in

petroleum spirit. Soluble in chloroform. Soluble in dimethylformamide. Śoluble in oils/fats.

Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Explosive limits : No data available

9.2. Other information

VOC content : 9.6 %
Gas group : Liquefied gas

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Flammable aerosol. Contains gas under pressure; may explode if heated. Extreme risk of explosion by shock, friction, fire or other sources of ignition.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Heat. Sparks. Open flame. Overheating.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Toxic fume. . Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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12.1.

Toxicity

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Acute toxicity	: Not classified
Benzene (71-43-2)	
LD50 oral rat	> 930 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; > 2000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 8240 mg/kg (Rabbit; Experimental value; 21 CFR 191.10; > 9.4; Rabbit)
LC50 inhalation rat (mg/l)	43.767 mg/l/4h (Rat; Experimental value)
LC50 inhalation rat (ppm)	13700 ppm/4h (Rat; Experimental value)
Toluene (108-88-3)	
LD50 oral rat	5580 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Literature study; 5580 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 5000 mg/kg body weight LD50 quoted as 14.1 mL/kg (12267 mg/kg using density of 0.87)
LC50 inhalation rat (mg/l)	> 28.1 mg/l/4h (Rat; Air, Literature study)
Heptane (142-82-5)	
LD50 oral rat	> 15000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; >5000 mg/kg bodyweight; Rat; Read-across)
LD50 dermal rabbit	> 3160 mg/kg (Rabbit; Literature study; Equivalent or similar to OECD 402; >2000 mg/kg bodyweight; Rabbit; Read-across)
LC50 inhalation rat (mg/l)	103 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	25000 ppm/4h (Rat; Literature study)
Heptane, Branched Cyclic (426260-76-6)	
LD50 oral rat	> 15000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; >5000 mg/kg bodyweight; Rat; Read-across)
LD50 dermal rabbit	> 3160 mg/kg (Rabbit; Literature study; Equivalent or similar to OECD 402; >2000 mg/kg bodyweight; Rabbit; Read-across)
LC50 inhalation rat (mg/l)	103 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	25000 ppm/4h (Rat; Literature study)
Acetone (67-64-1)	
LD50 oral rat	5800 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	20000 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402)
LC50 inhalation rat (mg/l)	71 mg/l/4h (Rat; Experimental value; 76 mg/l/4h; Rat; Experimental value)
LC50 inhalation rat (ppm)	30000 ppm/4h (Rat; Experimental value)
Methanol (67-56-1)	
LD50 oral rat	>= 2528 mg/kg body weight application as 50% aqueous solution
LD50 dermal rabbit	17100 mg/kg corresponding to 20 ml/kg bw according to the authors
LC50 inhalation rat (mg/l)	128.2 mg/l/4h Air
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Benzene (71-43-2)	
IARC group	1
Toluene (108-88-3)	
IARC group	3
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (single exposure)	: Causes damage to organs. May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: May cause irritation or asthma-like symptoms. Shortness of breath.
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Symptoms/injuries after skin contact	: May cause slight irritation . Itching. Red skin. Causes skin irritation.
Symptoms/injuries after skin contact Symptoms/injuries after eye contact	 Inflammation/damage of the eye tissue. Irritation of the eye tissue. Redness of the eye tissue.

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Benzene (71-43-2)	
LC50 fish 1	5.3 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 1	18 mg/l (24 h; Daphnia magna)
LC50 fish 2	15.1 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 2	10 mg/l (48 h; Daphnia magna)
TLM fish 1	22.5 mg/l (96 h; Lepomis macrochirus; Soft water)
TLM fish 2	32 mg/l (96 h; Pimephales promelas; Hard water)
Threshold limit algae 1	100 mg/l (72 h; Pseudokirchneriella subcapitata; GLP)
Threshold limit algae 2	50 mg/l (24 h; Phaeodactylum; Photosynthesis)
Toluene (108-88-3)	
LC50 fish 1	24 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 1	84 mg/l (24 h; Daphnia magna; Locomotor effect)
LC50 fish 2	13 mg/l (96 h; Lepomis macrochirus)
EC50 Daphnia 2	11.5 - 19.6 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	> 400 mg/l (168 h; Scenedesmus quadricauda; Toxicity test)
Threshold limit algae 2	105 mg/l (192 h; Microcystis aeruginosa)
Heptane (142-82-5)	
LC50 fish 1	375 mg/l (96 h; Tilapia mosambica; Nominal concentration)
LC50 other aquatic organisms 1	> 1000 mg/l (96 h)
EC50 Daphnia 1	1.5 mg/l (48 h; Daphnia magna)
LC50 fish 2	> 100 mg/l (96 h; Oncorhynchus kisutch)
	* 1
TLM fish 1	4924 mg/l (48 h; Gambusia affinis) > 1000 mg/l (96 h)
Threshold limit other aquatic organisms 1	> 200 mg/l (Scenedesmus quadricauda; Toxicity test)
Threshold limit algae 1	1.5 mg/l (8 h; Algae; Photosynthesis)
Threshold limit algae 2	1.5 mg/l (6 ft, Algae, Photosynthesis)
Acetone (67-64-1)	I
TLM fish 1	13000 ppm (96 h; Gambusia affinis; Turbulent water)
TLM fish 2	> 1000 ppm (96 h; Pisces)
Threshold limit other aquatic organisms 1	3000 mg/l (Plankton)
Threshold limit other aquatic organisms 2	28 mg/l (Protozoa)
Threshold limit algae 1	7500 mg/l (Scenedesmus quadricauda; pH = 7)
Threshold limit algae 2	3400 mg/l (48 h; Chlorella sp.)
Carbon Dioxide, Liquefied, Under Pressure (1	24-38-9)
LC50 fish 1	35 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Lethal)
LC50 fish 2	60 - 240 mg/l (12 h; Salmo gairdneri (Oncorhynchus mykiss); Lethal)
Acetone (67-64-1)	
LC50 fish 1	6210 mg/l (96 h; Pimephales promelas; Nominal concentration)
EC50 Daphnia 1	8800 mg/l (48 h; Daphnia pulex)
LC50 fish 2	5540 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
TLM fish 1	13000 ppm (96 h; Gambusia affinis; Turbulent water)
TLM fish 2	> 1000 ppm (96 h; Pisces)
Threshold limit other aquatic organisms 1	3000 mg/l (Plankton)
Threshold limit other aquatic organisms 2	28 mg/l (Protozoa)
Threshold limit algae 1	7500 mg/l (Scenedesmus quadricauda; pH = 7)
Threshold limit algae 2	3400 mg/l (48 h; Chlorella sp.)
Mothanol (67-56-1)	
Methanol (67-56-1) LC50 fish 1	15400 mg/l (96 h; Lepomis macrochirus; Lethal)
EC50 Daphnia 1	> 10000 mg/l (48 h; Daphnia magna; Lethal)
LC50 fish 2	10800 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 2	24500 mg/l (48 h; Daphnia magna; Locomotor effect)
Threshold limit other aquatic organisms 1	6600 mg/l (16 h; Pseudomonas putida)
Threshold limit algae 1	530 mg/l (191, it seadoffichas putida)
Threshold limit algae 1 Threshold limit algae 2	8000 mg/l (168 h; Scenedesmus quadricauda)
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12.2. Persistence and degradability	

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Not established.

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Persistence and degradability

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Benzene (71-43-2)	
Persistence and degradability	Readily biodegradable in water. Ozonation in water. Forming sediments in water. Biodegradable in the soil. Low potential for adsorption in soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	2.18 g O ₂ /g substance
Chemical oxygen demand (COD)	2.15 g O ₂ /g substance
ThOD	3.10 g O ₂ /g substance
BOD (% of ThOD)	0.70 % ThOD
Toluene (108-88-3)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	2.15 g O ₂ /g substance
Chemical oxygen demand (COD)	2.52 g O ₂ /g substance
ThOD	3.13 g O ₂ /g substance
BOD (% of ThOD)	0.69 % ThOD
Heptane (142-82-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	1.92 g O ₂ /g substance
Chemical oxygen demand (COD)	0.06 g O ₂ /g substance
ThOD	3.52 g O ₂ /g substance
BOD (% of ThOD)	> % ThOD (5 day(s)) > 0.5
	,
Heptane, Branched Cyclic (426260-76-6)	
Persistence and degradability	May cause long-term adverse effects in the environment.
Acetone (67-64-1)	
Persistence and degradability	Not established.
Carbon Dioxide, Liquefied, Under Pressure	(124-38-9)
Persistence and degradability	Biodegradability: not applicable. Not applicable (gas).
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
	The Capping and Ca
Acetone (67-64-1) Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under
	anaerobic conditions. No (test)data on mobility of the substance available. Not established.
Biochemical oxygen demand (BOD)	1.43 g O ₂ /g substance
Chemical oxygen demand (COD)	1.92 g O ₂ /g substance
ThOD	2.20 g O ₂ /g substance
BOD (% of ThOD)	(20 day(s)) 0.872
Methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O ₂ /g substance
Chemical oxygen demand (COD)	1.42 g O ₂ /g substance
ThOD	1.5 g O ₂ /g substance
BOD (% of ThOD)	0.8 % ThOD
,	0.8 % ThOD
2.3. Bioaccumulative potential	
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2.3. Bioaccumulative potential FVP NON-CHLORINATED BRAKE CLEANER Bioaccumulative potential	R 10% VOC 15 OZ.
2.3. Bioaccumulative potential FVP NON-CHLORINATED BRAKE CLEANER	R 10% VOC 15 OZ. Not established.
2.3. Bioaccumulative potential FVP NON-CHLORINATED BRAKE CLEANER Bioaccumulative potential Benzene (71-43-2)	R 10% VOC 15 OZ.
2.3. Bioaccumulative potential FVP NON-CHLORINATED BRAKE CLEANER Bioaccumulative potential Benzene (71-43-2) BCF fish 1	R 10% VOC 15 OZ. Not established. 19 Salmo gairdneri (Oncorhynchus mykiss)
2.3. Bioaccumulative potential FVP NON-CHLORINATED BRAKE CLEANER Bioaccumulative potential Benzene (71-43-2) BCF fish 1 BCF fish 2	R 10% VOC 15 OZ. Not established. 19 Salmo gairdneri (Oncorhynchus mykiss) < 10 (3 days; Leuciscus idus)
2.3. Bioaccumulative potential FVP NON-CHLORINATED BRAKE CLEANER Bioaccumulative potential Benzene (71-43-2) BCF fish 1 BCF fish 2 BCF other aquatic organisms 1	R 10% VOC 15 OZ. Not established. 19 Salmo gairdneri (Oncorhynchus mykiss) < 10 (3 days; Leuciscus idus) 30 (24 h; Chlorella sp.; Fresh weight)
2.3. Bioaccumulative potential FVP NON-CHLORINATED BRAKE CLEANER Bioaccumulative potential Benzene (71-43-2) BCF fish 1 BCF fish 2 BCF other aquatic organisms 1 Log Pow Bioaccumulative potential	R 10% VOC 15 OZ. Not established. 19 Salmo gairdneri (Oncorhynchus mykiss) < 10 (3 days; Leuciscus idus) 30 (24 h; Chlorella sp.; Fresh weight) 2.13 (Experimental value)
2.3. Bioaccumulative potential FVP NON-CHLORINATED BRAKE CLEANER Bioaccumulative potential Benzene (71-43-2) BCF fish 1 BCF fish 2 BCF other aquatic organisms 1 Log Pow Bioaccumulative potential Toluene (108-88-3)	R 10% VOC 15 OZ. Not established. 19 Salmo gairdneri (Oncorhynchus mykiss) < 10 (3 days; Leuciscus idus) 30 (24 h; Chlorella sp.; Fresh weight) 2.13 (Experimental value) Low potential for bioaccumulation (BCF < 500).
2.3. Bioaccumulative potential FVP NON-CHLORINATED BRAKE CLEANER Bioaccumulative potential Benzene (71-43-2) BCF fish 1 BCF fish 2 BCF other aquatic organisms 1 Log Pow Bioaccumulative potential Toluene (108-88-3) BCF fish 1	R 10% VOC 15 OZ. Not established. 19 Salmo gairdneri (Oncorhynchus mykiss) < 10 (3 days; Leuciscus idus) 30 (24 h; Chlorella sp.; Fresh weight) 2.13 (Experimental value) Low potential for bioaccumulation (BCF < 500).
2.3. Bioaccumulative potential FVP NON-CHLORINATED BRAKE CLEANER Bioaccumulative potential Benzene (71-43-2) BCF fish 1 BCF fish 2 BCF other aquatic organisms 1 Log Pow Bioaccumulative potential Toluene (108-88-3)	R 10% VOC 15 OZ. Not established. 19 Salmo gairdneri (Oncorhynchus mykiss) < 10 (3 days; Leuciscus idus) 30 (24 h; Chlorella sp.; Fresh weight) 2.13 (Experimental value) Low potential for bioaccumulation (BCF < 500).

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Toluene (108-88-3)	arch 26, 2012 / Rules and Regulations		
Log Pow	2.73 (Experimental value; Other; 20 °C)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
Heptane (142-82-5)			
BCF other aquatic organisms 1	552		
Log Pow	4.66 (Experimental value; 4.5; Literature)		
Bioaccumulative potential	Potential for bioaccumulation (4 ≥ Log Kow ≤ 5).		
Heptane, Branched Cyclic (426260-76-6)			
Bioaccumulative potential	Not established.		
Acetone (67-64-1)			
Bioaccumulative potential	Not established.		
Carbon Dioxide, Liquefied, Under Pressure (12			
Log Pow	0.83 (Experimental value)		
Bioaccumulative potential	Bioaccumulation: not applicable.		
Acetone (67-64-1)			
BCF fish 1	0.69 (Pisces)		
BCF other aquatic organisms 1	3		
Log Pow	-0.24 (Test data)		
Bioaccumulative potential	Not bioaccumulative. Not established.		
Methanol (67-56-1)			
BCF fish 1	< 10 (72 h; Leuciscus idus)		
BCF fish 2	1 (72 h; Cyprinus carpio; Blood)		
Log Pow	-0.77 (Experimental value; Other)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
12.4. Mobility in soil			
Damana /74 42 2\			
Benzene (71-43-2) Surface tension	0.029 N/m (20 °C)		
	0.029 N/III (20 °C)		
Toluene (108-88-3)			
Surface tension	0.03 N/m (20 °C)		
Heptane (142-82-5)			
Surface tension	0.020 N/m (20 °C)		
Acetone (67-64-1)			
Surface tension	0.0237 N/m (20 °C)		
Methanol (67-56-1)			
Surface tension	0.023 N/m (20 °C)		
12 E Other adverse effects			
12.5. Other adverse effects Other information	: Avoid release to the environment.		

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Container under

pressure. Do not drill or burn even after use. Dispose of contents/container to appropriate waste

disposal facility, in accordance with local, regional, national, international regulations.

Additional information : Flammable vapors may accumulate in the container.

Ecology - waste materials : Avoid release to the environment.

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SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

US DOT (ground): UN1950, Aerosols, 2.1, Limited Quantity ICAO/IATA (air): UN1950, Aerosols, 2.1, Limited Quantity IMO/IMDG (water): UN1950, Aerosols, 2.1, Limited Quantity

Special Provisions: N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols.

UN proper shipping name

Proper Shipping Name (DOT) : Aerosols

flammable, (each not exceeding 1 L capacity)

Department of Transportation (DOT) Hazard

Classes

: 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115

Hazard labels (DOT) : 2.1 - Flammable gas

DOT Special Provisions (49 CFR 172.102) : N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols.

: 306 DOT Packaging Exceptions (49 CFR 173.xxx) DOT Packaging Non Bulk (49 CFR 173.xxx) : None DOT Packaging Bulk (49 CFR 173.xxx) : None

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel.

DOT Vessel Stowage Other : 48 - Stow "away from" sources of heat,87 - Stow "separated from" Class 1 (explosives) except

Division 14,126 - Segregation same as for Class 9, miscellaneous hazardous materials

Air transport

DOT Quantity Limitations Passenger aircraft/rail : 75 kg

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 150 kg

CFR 175.75)

SECTION 15: Regulatory information

15.1. US Federal regulations

FVP NON-CHLORINATED BRAKE CLEANER 10% VOC 15 OZ.			
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard		
	Fire hazard		

Immediate (acute) health hazard Sudden release of pressure hazard

Toluene (108-88-3)

Listed on United States SARA Section 313 Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 311/312 Hazard Classes Delayed (chronic) health hazard Fire hazard

Immediate (acute) health hazard

Heptane, Branched Cyclic (426260-76-6)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 311/312 Hazard Classes Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard

Acetone (67-64-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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A 4 (07 04 4)			
Acetone (67-64-1)			
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard Delayed (chronic) health hazard		
Methanol (67-56-1)			
Listed on United States SARA Section 313 Listed on the United States TSCA (Toxic Substances Control Act) inventory			
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Fire hazard		

15.2. International regulations

CANADA

FVP NON-CHLORINATED BRAKE CLEANER 10% VOC 15 OZ.			
WHMIS Classification	Class B Division 5 - Flammable Aerosol Class D Division 2 Subdivision B - Toxic material causing other toxic effects		
Toluene (108-88-3)			
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects		
Heptane, Branched Cyclic (426260-76-6)			
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects		
Acetone (67-64-1)			
Listed on the Canadian DSL (Domestic Sustance	s List)		
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects		
Methanol (67-56-1)			
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects		

EU-Regulations

Toluene (108-88-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Acetone (67-64-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)- Directive 79/831/EEC, sixth Amendment of Directive 67/548/EEC (dangerous substances)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F; R11 Xn; R20/21/22 Xn; R68/20/21/22

Xi; R36

Full text of R-phrases: see section 16

15.2.2. National regulations

Acetone (67-64-1)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on KECI (Korean Existing Chemicals Inventory)

Listed on AICS (Australian Inventory of Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the Korean ECL (Existing Chemicals List)

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15.3. US State regulations

State or local regulations U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Acetone (67-64-1)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes				

Toluene (108-88-3)

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Acetone (67-64-1)

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Benzene 71-43-2

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Asp. Tox. 1	Aspiration hazard Category 1
Compressed gas	Gases under pressure Compressed gas
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Aerosol 2	Flammable aerosol Category 2
Flam. Liq. 1	Flammable liquids Category 1
Flam. Liq. 2	Flammable liquids Category 2
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H223	Flammable aerosol
H224	Extremely flammable liquid and vapor
H225	Highly flammable liquid and vapor
H280	Contains gas under pressure; may explode if heated
H301	Toxic if swallowed
H304	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H331	Toxic if inhaled
H336	May cause drowsiness or dizziness
H361	Suspected of damaging fertility or the unborn child
H370	Causes damage to organs
H373	May cause damage to organs through prolonged or repeated
	exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

NFPA health hazard

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^{: 2 -} Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

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NFPA fire hazard : 3 - Liquids and solids that can be ignited under almost all

ambient conditions.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions,

and are not reactive with water.

HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard Physical : 1 Slight Hazard

Personal Protection : B

SDS US (GHS HazCom 2012) - TCC

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compilance with the above. The date of manufacture is stamped on the product

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