



# FVP DOT 4 BRAKE FLUID 12 FL.OZ.

## Safety Data Sheet

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

Revision date: 07/11/18

### 1.1. Product identifier

Product form : Mixture  
Trade name : FVP DOT 4 Brake Fluid  
Product code : FVPBF4-12

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Brake Fluid

### 1.3. Details of the supplier of the safety data sheet

Factory Motor Parts  
1380 Corporate Center Curve, Suite 200  
Eagan, MN 55121  
1-866-387-3343

### 1.4. Emergency telephone number

Emergency number : Infotrac 24 Hour 1-800-535-5053

### 2.1. Classification of the substance or mixture

#### Classification (GHS-US)

Acute Tox. 4 (Oral) H302  
Acute Tox. 4 (Inhalation:dust,mist) H332  
Skin Irrit. 2 H315  
Eye Dam. 1 H318  
STOT RE 2 H373

Full text of H-phrases: see section 16

## 2

### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS05

GHS07

GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H302+H332 - Harmful if swallowed or if inhaled

H315 - Causes skin irritation

H318 - Causes serious eye damage

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

Precautionary statements (GHS-US) : 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 P301+P312 - If swallowed: Call a poison center/doctor/... if you feel unwell 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

P310 - Immediately call a poison center,doctor, physician

P312 - Call a POISON CONTROL CENTER, doctor, if you feel unwell. P314 - Get medical advice/attention if you feel unwell

P321 - Specific treatment: See section 4.1 on this label

P330 - Rinse mouth

P332+P313 - If skin irritation occurs: Get medical advice/attention

P362 - Take off contaminated clothing and wash before reuse

P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

Other hazards not contributing to the classification

None under normal conditions.

## 2.4. Unknown acute toxicity (GHS-US)

No data available

## 3.1. Substance

Not applicable

## 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
2,5,8,11-Tetraoxatridecan- 13-ol, mixed esters with boric acid	(CAS No) 176022-80-3	15 - 40	Not classified
triethylene glycol monomethyl ether	(CAS No) 112-35-6	10 - 30	Not classified
methoxy polyethylene glycol 350	(CAS No) 9004-74-4	10 - 30	Not classified
triethylene glycol monobutyl ether	(CAS No) 143-22-6	8 - 18	Eye Dam. 1, H318
POLYALKYLENE GLYCOL MONOBUTYL ETHER	(CAS No) 9004-77-7	7 - 13	Not classified
tetraethylene glycol	(CAS No) 112-60-7	1 - 10	Not classified
3,6,9,12-tetraoxatetradecane-1,14-diol	(CAS No) 4792-15-8	1 - 5	Not classified
triethyleneglycol	(CAS No) 112-27-6	1 - 5	Not classified
diisopropanolamine	(CAS No) 110-97-4	<= 1.5	Not classified

## 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Assure fresh air breathing. Allow the victim to rest. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor/physician if you feel unwell.

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

Symptoms/injuries	: Causes damage to organs.
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.
Symptoms/injuries after skin contact	: May cause moderate
irritation. Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: 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

No additional information available

## 5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray.
Sand. Unsuitable extinguishing media	: Do not use a heavy water stream.

## 5.2. Special hazards arising from the substance or mixture

No additional information available

## 5.3. 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.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

## 6.1. Personal precautions, protective equipment and emergency procedures

General measures : 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.

**6.1.2. For emergency responders**

Protective equipment : Equip cleanup crew with proper protection. Emergency procedures : Ventilate area.

## 6

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.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

## 6

See Heading 8. Exposure controls and personal protection.

### 7.1. Precautions for safe handling

- 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. Use only outdoors or in a well-ventilated area. Avoid breathing dust, fume, gas, mist, vapor spray.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash affected areas thoroughly after handling.

### 7.2. 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.
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight. Storage area : Keep only in the original container. Special rules on packaging : Keep only in original container.

### 7.3. Specific end use(s)

Follow Label Directions.

### 8.1. Control parameters

#### 2,5,8,11-Tetraoxatridecan- 13-ol, mixed esters with boric acid (176022-80-3)

USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
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## 8

- Appropriate engineering controls : Local exhaust ventilation, vent hoods.
- Personal protective equipment : Gloves. Safety glasses. Avoid all unnecessary exposure.



- Hand protection : Wear protective gloves.
- Eye protection : Chemical goggles or safety glasses. Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : Wear appropriate mask.
- Other information : Do not eat, drink or smoke during use.

### 9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Colorless to pale yellow
- liquid. Color : Colourless to light yellow.
- Odor : Mild .

Ammoniacal. Odor threshold	: No data
available pH	: 7 - 9
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: < -59 °C
Freezing point	: No data available
Boiling point	: > 243 °C

Flash point : > 121 °C

Auto-ignition temperature : No data available

Decomposition temperature : No data available

available Flammability (solid, gas) : No data available

Vapor pressure : < 0.01 mm Hg

Estimated Relative vapor density at 20 °C : No data available

Relative density : 1.03 - 1.08

Solubility : Soluble in water.  
Water: 100% Estimated

Log Pow : No data available

Log Kow : No data available

Viscosity, kinematic : 1100 mm<sup>2</sup>/s @ -40 deg C Estimated

Viscosity, dynamic : No data available

Explosive properties : No data available

available Oxidizing properties : No data available

data available Explosive limits :

No data available

## 9.2. Other information

VOC content : 0 %

## 10.1. Reactivity

No additional information available

## 10.2. Chemical stability

Not established.

## 10.3. Possibility of hazardous reactions

Not established.

## 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

## 10.5. Incompatible materials

Oxidizing agent. Strong acids. Strong bases.

## 10.6. Hazardous decomposition products

Toxic fume. . Carbon monoxide. Carbon dioxide.

## 11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed. Harmful if inhaled.

### triethylene glycol monomethyl ether (112-35-6)

LD50 oral rat	11865 mg/kg (Rat)
LD50 dermal rabbit	7455 mg/kg (Rabbit)

### methoxy polyethylene glycol 350 (9004-74-4)

LD50 oral rat	22000 mg/kg (Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit)

### triethylene glycol monobutyl ether (143-22-6)

LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	3480 mg/kg (Rabbit)

### tetraethylene glycol (112-60-7)

LD50 oral rat	29000 mg/kg (Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit)
<b>triethyleneglycol (112-27-6)</b>	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
<b>diisopropanolamine (110-97-4)</b>	
LD50 oral rat	4765 mg/kg (Rat)
LD50 dermal rat	16000 mg/kg (Rat)



#### diisopropanolamine (110-97-4)

LD50 dermal rabbit	8000 mg/kg (Rabbit)
Skin corrosion/irritation irritation.	: Causes skin
pH: 7 - 9	
Serious eye damage/irritation	: Causes serious eye damage. pH: 7 - 9
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classifiedBased on available data, the classification criteria are not met
Carcinogenicity	: Not classified

#### POLYALKYLENE GLYCOL MONOBUTYL ETHER (9004-77-7)

IARC group	4
Reproductive toxicity	: Not classifiedBased on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.Based on available data, the classification criteria are not met May cause damage to organs through prolonged or repeated exposure
Aspiration hazard	: Not classifiedBased on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met. Harmful if swallowed. Harmful if inhaled.
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.
Symptoms/injuries after skin contact	: May cause moderate
irritation. Symptoms/injuries after eye contact	: Causes serious eye
damage.	
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.

### 12.1. Toxicity

#### triethylene glycol monomethyl ether (112-35-6)

LC50 fish 1	> 5000 mg/l (96 h; Brachydanio rerio; Measured concentration)
EC50 other aquatic organisms 1	> 5000 mg/l (16 h; Activated sludge; Cell numbers)
LC50 fish 2	> 10000 mg/l (96 h; Pimephales promelas)
TLM fish 1	> 1000 ppm (96 h; Pisces)
TLM other aquatic organisms 1	> 1000 ppm (96 h)
Threshold limit algae 1	> 500 mg/l (72 h; Scenedesmus subspicatus)

#### methoxy polyethylene glycol 350 (9004-74-4)

LC50 fish 1 > 10000 mg/l (Pimephales promelas)

#### triethylene glycol monobutyl ether (143-22-6)

LC50 fish 1	2400 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 1	3200 mg/l (24 h; Daphnia magna)
LC50 fish 2	2200 mg/l (96 h; Leuciscus idus)
EC50 Daphnia 2	> 500 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	> 500 mg/l (72 h; Scenedesmus subspicatus)

#### tetraethylene glycol (112-60-7)

LC50 fish 1 > 5000 mg/l (24 h; Carassius auratus)

**triethyleneglycol (112-27-6)**

LC50 fish 1	59900 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 1	42426 mg/l (48 h; Daphnia magna)
LC50 fish 2	61000 mg/l (96 h; Lepomis macrochirus)
TLM fish 1	> 1000 ppm (96 h; Pisces)
TLM other aquatic organisms 1	> 1000 ppm (96 h)
Threshold limit algae 1	3600 mg/l (168 h; Microcystis aeruginosa)
Threshold limit algae 2	> 10000 mg/l (168 h; Scenedesmus quadricauda)

**diisopropanolamine (110-97-4)**

LC50 fish 1	1000 - 2200 mg/l (96 h; Brachydanio rerio; pH > 7)
LC50 other aquatic organisms 1	100 - 1000 mg/l (48 h; Xenopus laevis)
EC50 Daphnia 1	353.8 mg/l (24 h; Daphnia magna)

<b>diisopropanolamine (110-97-4)</b>	
LC50 fish 2	1100 mg/l (24 h; Carassius auratus)
LC50 other aquatic organisms 2	410 mg/l
EC50 Daphnia 2	277.7 mg/l (48 h; Daphnia magna)
Threshold limit other aquatic organisms 1	100 - 1000,48 h; Xenopus laevis
Threshold limit other aquatic organisms 2	410 mg/l
Threshold limit algae 1	270 mg/l (72 h; Scenedesmus subspicatus)

## 12.2. Persistence and degradability

<b>JOHNSEN'S DOT 4 BRAKE FLUID 12 FL.OZ.</b>	
Persistence and degradability	Not established.

### triethylene glycol monomethyl ether (112-35-6)

Persistence and degradability Inherently biodegradable. Non degradable in the soil. Photodegradation in the air.

<b>methoxy polyethylene glycol 350 (9004-74-4)</b>	
Persistence and degradability	Not readily biodegradable in water.
BOD (% of ThOD)	(28 day(s)) 0.1

<b>triethylene glycol monobutyl ether (143-22-6)</b>	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.02 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.83 g O <sub>2</sub> /g substance

<b>tetraethylene glycol (112-60-7)</b>	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.50 g O <sub>2</sub> /g substance (10d)
ThOD	2.23 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.286 % ThOD

### POLYALKYLENE GLYCOL MONOBUTYL ETHER (9004-77-7)

Persistence and degradability Not established.

### 3,6,9,12-tetraoxatetradecane-1,14-diol (4792-15-8)

Persistence and degradability Biodegradability in water: no data available.

<b>triethyleneglycol (112-27-6)</b>	
Persistence and degradability	Inherently biodegradable. Readily biodegradable in water. Photolysis in the air.
Biochemical oxygen demand (BOD)	0.03 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.57 g O <sub>2</sub> /g substance
ThOD	1.6 g O <sub>2</sub> /g substance

### diisopropanolamine (110-97-4)

Persistence and degradability Not readily biodegradable in water.

## 12.3. Bioaccumulative potential

<b>JOHNSEN'S DOT 4 BRAKE FLUID 12 FL.OZ.</b>	
Bioaccumulative potential	Not established.

<b>triethylene glycol monomethyl ether (112-35-6)</b>	
Log Pow	-1.13
Bioaccumulative potential	Bioaccumulation: not applicable.

### methoxy polyethylene glycol 350 (9004-74-4)

Bioaccumulative potential Not bioaccumulative.

<b>triethylene glycol monobutyl ether (143-22-6)</b>	
Log Pow	0.51 (Experimental value)



**3,6,9,12-tetraoxatetradecane-1,14-diol (4792-15-8)**

Bioaccumulative potential Bioaccumulation: not applicable.

**triethyleneglycol (112-27-6)**

Log Pow -2.08 - -1.17 (Calculated)

Bioaccumulative potential Low potential for bioaccumulation (Log Kow &lt; 4).

**diisopropanolamine (110-97-4)**

Log Pow -0.79

Bioaccumulative potential Bioaccumulation: not applicable.

**13. Physical and chemical properties****triethylene glycol monomethyl ether (112-35-6)**

Surface tension 0.0314 N/m

**methoxy polyethylene glycol 350 (9004-74-4)**

Surface tension 0.04 N/m

**tetraethylene glycol (112-60-7)**

Surface tension 0.019 N/m

**triethyleneglycol (112-27-6)**

Surface tension 0.045 N/m (20 °C)

**1**

Other information : Avoid release to the environment.

**13.1. Waste treatment methods**

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

Ecology - waste materials : Avoid release to the environment.

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

US DOT (ground): Not regulated,

ICAO/IATA (air): Not

regulated, IMO/IMDG (water):

Not regulated,

**1**

DOT Proper Shipping Name : Not regulated

**14.3. Additional information**

Other information : No supplementary information available.

**Overland transport**

No additional information available

**Transport by sea**

No additional information available

**Air transport**

No additional information available

## 15.1. US Federal regulations

### JOHNSEN'S DOT 4 BRAKE FLUID 12 FL.OZ.

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
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## 15.2. State regulations

### CANADA

No additional information available

## EU-Regulations

No additional information available

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

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

Not classified

### 15.2.2. National regulations

#### JOHNSEN'S DOT 4 BRAKE FLUID 12 FL.OZ.

Listed on AICS (Australian Inventory of Chemical Substances)

### 15.3. US State regulations

#### JOHNSEN'S DOT 4 BRAKE FLUID 12 FL.OZ.()

State or local regulations

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL) U.S. - Pennsylvania - RTK (Right to Know) List

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

Indication of changes : Revision - See :

\*. Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H332	Harmful if inhaled
H373	May cause damage to organs through prolonged or repeated exposure

NFPA health hazard

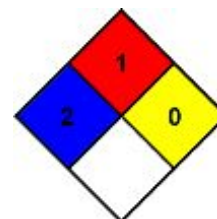
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard

: 1 - Must be preheated before ignition can occur.

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 : 1 Slight Hazard

Physical : 0 Minimal

Hazard Personal Protection : B

SDS US (GHS HazCom 2012) - Technical Chemical

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 compliance with the above. The date of manufacture is stamped on the product

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