PEAK DOT 4 Brake Fluid

Safety Data Sheet

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

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

1.1. Product identifier

Product form : Mixture

Product name : PEAK DOT 4 Brake Fluid

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

Use of the substance/mixture : Automotive brake fluid

1.3. Details of the supplier of the safety data sheet

Old World Industries, LLC
4065 Commercial Ave.
Northbrook, IL 60062 - USA
T (847) 559-2000
www.oldworldind.com

1.4. Emergency telephone number

Emergency number : (800) 424-9300; (703) 527 3887 (International)
Chemtrec

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute Tox. 4 (Oral)	H302
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
STOT RE 2	H373

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :

GHS07 GHS08

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) :
H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral)

Precautionary statements (GHS-US) :
P260 - Do not breathe mist, spray, vapors
P264 - Wash affected areas thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear personal protective equipment as required
P301+P312 - If swallowed: Call doctor/physician or poison center if you feel unwell . Rinse mouth
P302+P352 - If on skin: Wash with plenty of soap and water
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P314 - Get medical advice/attention if you feel unwell
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
P501 - Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations

2.3. Other hazards

No additional information available

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	% by wt	GHS-US classification
triethyleneglycol monoethyl ether	(CAS No) 112-50-5	20 - 30	Skin Irrit. 2, H315
diethyleneglycolmonoethyl ether	(CAS No) 111-90-0	10 - 20	Eye Irrit. 2A, H319
Diethylene glycol monobutyl ether	(CAS No) 112-34-5	5 - 10	Eye Irrit. 2A, H319
diethylene glycol	(CAS No) 111-46-6	3 - 8	Acute Tox. 4 (Oral), H302 STOT RE 2, H373

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 you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : If you feel unwell, seek medical advice.

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. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes, lifting lower and upper lids. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

First-aid measures after ingestion : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Get medical advice/attention if you feel unwell.

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

Symptoms/injuries after inhalation : None under normal use.

Symptoms/injuries after skin contact : If skin irritation or rash occurs: Get medical advice/attention.

Symptoms/injuries after eye contact : Causes eye irritation. Causes eyes to water.

Symptoms/injuries after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : No unsuitable extinguishing media known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Under fire conditions, hazardous fumes will be present.

Explosion hazard : Not applicable.

Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

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

Special protective equipment for fire fighters : Protective fire fighting clothing (includes fire-fighting helmet, coat, pants, boots and gloves). Wear positive pressure air supplied respirator if required by safe entry procedures.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin, eyes and clothing.

6.1.1. For non-emergency personnel

Protective equipment : Use appropriate personal protection equipment (PPE).

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Stop leak if safe to do so.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.

Methods for cleaning up : Collect spillage. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Notify authorities if product enters sewers or public waters.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Do not store near food, foodstuffs, drugs or potable water supplies. Keep container closed when not in use. Store in a dry place. Store in a well-ventilated place. Store in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Diethylene glycol monobutyl ether (112-34-5)		
ACGIH	ACGIH TWA (ppm)	10 ppm
ACGIH	ACGIH STEL (ppm)	10 ppm
OSHA	Not applicable	

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Personal protective equipment : Protective goggles. Protective clothing. Gloves.

Hand protection : Wear suitable gloves resistant to chemical penetration.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : If exposed to levels above exposure limits wear appropriate respiratory protection.

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : amber

Odor : ether-like odor

Odor threshold : No data available

pH : 10.5

Relative evaporation rate (butylacetate=1) : No data available

Freezing point	:	No data available
Boiling point	:	> 230 °C (446 ºF)
Flash point	:	203 °C (397 ºF) [Method used: Cleveland Open Cup]
Auto-ignition temperature	:	No data available
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
Specific Gravity	:	1.06
Density	:	1.06 kg/l (8.84 lbs/gal)
Solubility	:	Water: Complete
Log Pow	:	No data available
Log Kow	:	No data available
Viscosity, kinematic	:	< 1500 cSt
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4. Conditions to avoid

Not established.

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

diethylene glycol (111-46-6)	
LD50 dermal rabbit	11,890.00 mg/kg (Rabbit)
ATE US (oral)	500.00 mg/kg bodyweight
ATE US (dermal)	11,890.00 mg/kg bodyweight

Diethylene glycol monobutyl ether (112-34-5)	
LD50 dermal rabbit	2,764.00 mg/kg bodyweight (Rabbit; Experimental value; Equivalent or similar to OECD 402)
ATE US (dermal)	2,764.00 mg/kg bodyweight

triethyleneglycol monoethyl ether (112-50-5)	
LD50 oral rat	7,750.00 mg/kg (Rat)
LD50 dermal rabbit	8,168.00 mg/kg (Rabbit)
ATE US (oral)	7,750.00 mg/kg bodyweight
ATE US (dermal)	8,168.00 mg/kg bodyweight

diethyleneglycolmonoethyl ether (111-90-0)	
LD50 oral rat	5,445.00 mg/kg (Rat)

diethyleneglycolmonoethyl ether (111-90-0)	
LD50 dermal rat	5,940.00 mg/kg (Rat)
LD50 dermal rabbit	> 5,000.00 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 5.20 mg/l/4h (Rat)
ATE US (oral)	5,445.00 mg/kg bodyweight
ATE US (dermal)	5,940.00 mg/kg bodyweight

Skin corrosion/irritation : Causes skin irritation.
pH: 10.50

Serious eye damage/irritation : Causes serious eye irritation.
pH: 10.50

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : None under normal use.

Symptoms/injuries after skin contact : If skin irritation or rash occurs: Get medical advice/attention.

Symptoms/injuries after eye contact : Causes eye irritation. Causes eyes to water.

Symptoms/injuries after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

SECTION 12: Ecological information

12.1. Toxicity

diethylene glycol (111-46-6)	
LC50 fish 1	> 5,000.00 ppm (24 h; Carassius auratus)
LC50 other aquatic organisms 1	1,174.00 mg/l (Xenopus laevis)
EC50 Daphnia 1	> 10,000.00 mg/l (24 h; Daphnia magna)
LC50 fish 2	61,072.00 ppm (168 h; Poecilia reticulata)
EC50 Daphnia 2	> 10,000.00 mg/l (24 h; Daphnia magna)
TLM fish 1	> 32000 mg/l (96 h; Gambusia affinis)
TLM other aquatic organisms 1	> 1000 ppm (96 h)
Threshold limit other aquatic organisms 1	1174 mg/l (72 h; Xenopus laevis; Toxicity test)
Threshold limit other aquatic organisms 2	10745 mg/l (16 h; Protozoa; Toxicity test)
Threshold limit algae 1	2700 mg/l (168 h; Scenedesmus quadricauda)
Threshold limit algae 2	100 mg/l (Selenastrum capricornutum)

Diethylene glycol monobutyl ether (112-34-5)	
LC50 fish 1	1,300.00 mg/l (96 h; Lepomis macrochirus)
EC50 Daphnia 1	4,950.00 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	> 100 mg/l (96 h; Desmodesmus subspicatus)

triethyleneglycol monoethyl ether (112-50-5)	
LC50 fish 1	> 10,000.00 mg/l (96 h; Pimephales promelas)
LC50 fish 2	> 5,000.00 mg/l (24 h; Pisces)

diethyleneglycolmonoethyl ether (111-90-0)	
LC50 fish 1	12,900.00 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Flow-through system)
EC50 Daphnia 1	3,940.00 mg/l (48 h; Daphnia magna)
EC50 other aquatic organisms 1	10,661.00 mg/l (Echinoidea; Growth)

diethyleneglycolmonoethyl ether (111-90-0)	
LC50 fish 2	9,650.00 mg/l (96 h; Pimephales promelas; Flow-through system)

12.2. Persistence and degradability

diethylene glycol (111-46-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0.02 g O_2/g substance
Chemical oxygen demand (COD)	1.51 g O_2/g substance
ThOD	1.51 g O_2/g substance
BOD (% of ThOD)	0.02 % ThOD

Diethylene glycol monobutyl ether (112-34-5)	
Persistence and degradability	Readily biodegradable in water. Low potential for adsorption in soil. Photooxidation in the air.

triethyleneglycol monoethyl ether (112-50-5)	
Persistence and degradability	Readily biodegradable in water.

diethyleneglycolmonoethyl ether (111-90-0)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.20 g O_2/g substance
Chemical oxygen demand (COD)	1.85 g O_2/g substance
ThOD	1.91 g O_2/g substance
BOD (% of ThOD)	0.11 % ThOD

12.3. Bioaccumulative potential

diethylene glycol (111-46-6)	
BCF fish 1	100.00 (3 h; Leuciscus melatonus)
Log Pow	-1.98 (Calculated; Other)
Bioaccumulative potential	Bioaccumulation: not applicable.

Diethylene glycol monobutyl ether (112-34-5)	
Log Pow	1.00 (Test data; Equivalent or similar to OECD 107; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

triethyleneglycol monoethyl ether (112-50-5)	
Bioaccumulative potential	Not bioaccumulative.

diethyleneglycolmonoethyl ether (111-90-0)	
Log Pow	-1.19 - -0.08
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

diethylene glycol (111-46-6)	
Surface tension	0.05 N/m

Diethylene glycol monobutyl ether (112-34-5)	
Surface tension	0.01 N/m (20 °C)

diethyleneglycolmonoethyl ether (111-90-0)	
Surface tension	0.03 N/m (25 °C)

12.5. Other adverse effects

Effect on ozone layer : No known effect on the ozone layer

Effect on global warming : No known ecological damage caused by this product.
No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

SECTION 14: Transport information

In accordance with DOT

Not a dangerous good in sense of transport regulations

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

PEAK DOT 4 Brake Fluid	
EPA TSCA Regulatory Flag	Toxic Substances Control Act (TSCA): The intentional ingredients of this product are listed
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

diethylene glycol (111-46-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Diethylene glycol monobutyl ether (112-34-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 313 - Emission Reporting	Subject to reporting requirements above threshold value of 1%

triethyleneglycol monoethyl ether (112-50-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 313 - Emission Reporting	Subject to reporting requirements above threshold value of 1%

diethyleneglycolmonoethyl ether (111-90-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 313 - Emission Reporting	Subject to reporting requirements above threshold value of 1%

15.2. International regulations

CANADA

WHMIS Classification

EU-Regulations

No additional information available

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

No additional information available

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

Not classified

National regulations

PEAK DOT 4 Brake Fluid
DSL (Canada): The intentional ingredients of this product are listed

15.3. US State regulations

diethylene glycol (111-46-6)
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Diethylene glycol monobutyl ether (112-34-5)
U.S. - Pennsylvania - RTK (Right to Know) List

triethyleneglycol monoethyl ether (112-50-5)
U.S. - Pennsylvania - RTK (Right to Know) List

diethyleneglycolmonoethyl ether (111-90-0)
U.S. - Rhode Island - Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

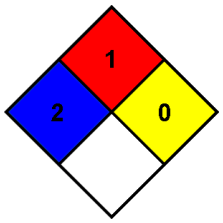
Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
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
H319	Causes serious eye irritation
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 - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 ºF (93 ºC). (Class IIIB)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal Protection : B - Safety glasses, Gloves

SDS GHS US (GHS HazCom 2012) OWI

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