

Pyroil® DOT 3 BRAKE FLUID
PYBF12

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone	1-800-ASHLAND (1-800-274-5263)

Product name	Pyroil® DOT 3 BRAKE FLUID
Product code	PYBF12
Product Use Description	No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid,, clear

CAUTION! MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE EYE IRRITATION. HARMFUL IF ABSORBED THROUGH THE SKIN.

Potential Health Effects

Exposure routes

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin contact

Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, skin burns, and other skin damage. Skin absorption of this material (or a component) may be increased through injured skin. Additional symptoms of skin contact may include: allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects)

Ingestion

Pyroil® DOT 3 BRAKE FLUID
PYBF12

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. Ingestion of medications contaminated with diethylene glycol has caused kidney failure and death in humans. Products containing diethylene glycol should be considered toxic by ingestion.

Inhalation

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: lung (for example, asthma-like conditions), liver, kidney, central nervous system, skin, immune system, blood-forming system

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), Cough, Difficulty in breathing, central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), pain in the abdomen and lower back, loss of coordination, confusion, narcosis (dazed or sluggish feeling), acute kidney failure (sudden slowing or stopping of urine production), lung edema (fluid buildup in the lung tissue)

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: central nervous system damage, male reproductive effects, kidney damage, liver damage, blood abnormalities, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: liver damage, kidney damage, This material (or a component) has been shown to lower activity of certain immune system cells in experimental animals. The significance of this effect with respect to human health is uncertain., Diethylene glycol monobutyl ether has been found to cause breakage of red blood cells following ingestion in rats. Injury to other organs including liver and kidneys was considered secondary to the effect on the blood.

Carcinogenicity

Pyroil® DOT 3 BRAKE FLUID
PYBF12

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain. Diethylene glycol monobutyl ether did not cause harm to the fetus when given orally or when applied to the skin in laboratory animal studies.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
POLYETHYLENE GLYCOL	9004-74-4	>=50-<60%
MONOMETHYL ETHER		
TRIETHYLENE GLYCOL	112-50-5	>=40-<50%
MONOETHYL ETHER		
TRIETHYLENE GLYCOL	112-35-6	>=30-<40%
MONOMETHYL ETHER		
TRIETHYLENE GLYCOL	143-22-6	>=20-<30%
MONOBUTYL ETHER		
TETRAETHYLENE GLYCOL	112-60-7	>=20-<30%
DIETHYLENE GLYCOL	111-46-6	>=10-<15%
TRISODIUM PHOSPHATE	7601-54-9	>=5-<10%
DIETHYLENE GLYCOL	112-34-5	>=5-<10%
MONOBUTYL ETHER		
DIISOPROPANOLAMINE	110-97-4	>=1.5-<5%

4. FIRST AID MEASURES**Eyes**

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Pyroil® DOT 3 BRAKE FLUID
PYBF12

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to physician

Hazards: Ingestion or other significant exposure to this material (or a component) may cause metabolic acidosis. Diglycol ethers may cause acidosis.

Treatment: Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and as such, may be used as an antidote in the treatment of ethylene glycol, diethylene glycol and methanol poisoning.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray, Dry chemical, Carbon dioxide (CO₂)

Hazardous combustion products

carbon dioxide and carbon monoxide, various hydrocarbons, Oxides of phosphorus, Sodium oxides, nitrogen oxides (NO_x)

Precautions for fire-fighting

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

Pyroil® DOT 3 BRAKE FLUID
PYBF12

Flammability Class for Flammable Liquids
Combustible Liquid Class IIIB

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Other information

Comply with all applicable federal, state, and local regulations.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Storage

Store in a cool, dry, ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should

Pyroil® DOT 3 BRAKE FLUID
PYBF12

consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Wear resistant gloves such as:
polyvinyl chloride

Respiratory protection

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	No data
Colour	clear, yellow
Odour	mild
Boiling point/boiling range	205.00 °C / 401 °F@ 760.00 mmHg
Melting point/range	-58 °F / -50 °C
pH	(+/- 1.8) 9.3

Pyroil® DOT 3 BRAKE FLUID
PYBF12

Flash point	275 °F / 135 °C, Tag closed cup
Evaporation rate	< 0.01 (n-Butyl Acetate)
Explosion limits	0.9 %(V) 36 %(V)
Vapour pressure	169.31 hPa @ 77 °F / 25 °C
Vapour density	6 (AIR=1)
Density	(Average) 1.035 g/cm ³ @ 39 °F / 4 °C 8.67 lb/gal
Solubility	soluble in water
Partition coefficient: n-octanol/water	No data
log Pow	no data available
Autoignition temperature	No data

10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to avoid

Avoid heat, open flame, and prolonged storage at elevated temperatures., Do not allow evaporation to dryness.

Incompatible products

Avoid contact with:, strong acids, strong alkalis, strong bases, Strong oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide, various hydrocarbons, Aldehydes, ketones, Organic acids, ethers, Alcohols, Oxides of phosphorus, Sodium oxides, nitrogen oxides (NO_x)

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Pyroil® DOT 3 BRAKE FLUID
PYBF12

Acute oral toxicity

POLYETHYLENE GLYCOL MONOMETHYL ETHER	no data available
TRIETHYLENE GLYCOL MONOETHYL ETHER	LD 50 Rat: 7,750 mg/kg
TRIETHYLENE GLYCOL MONOMETHYL ETHER	LD 50 Rat: 11,800 mg/kg
TRIETHYLENE GLYCOL MONOBUTYL ETHER	LD 50 Rat: 5,300 mg/kg
TETRAETHYLENE GLYCOL	LD 50 Rat: ca. 30,000 mg/kg LD 50 Rat: 32,800 mg/kg
DIETHYLENE GLYCOL	LD 50 Rat: 12,565 mg/kg
TRISODIUM PHOSPHATE	LD 50 Rat: 4,150 mg/kg
DIETHYLENE GLYCOL MONOBUTYL ETHER	LD 50 Rat: 6,560 mg/kg
DIISOPROPANOLAMINE	LD 50 Rat: 2,000 mg/kg

Acute inhalation toxicity

POLYETHYLENE GLYCOL MONOMETHYL ETHER	no data available
TRIETHYLENE GLYCOL MONOETHYL ETHER	no data available
TRIETHYLENE GLYCOL MONOMETHYL ETHER	no data available
TRIETHYLENE GLYCOL MONOBUTYL ETHER	no data available
TETRAETHYLENE GLYCOL	no data available
DIETHYLENE GLYCOL	LC Lo Mouse: 130 mg/m ³ , 2 h
TRISODIUM PHOSPHATE	no data available
DIETHYLENE GLYCOL MONOBUTYL ETHER	no data available
DIISOPROPANOLAMINE	no data available

Acute dermal toxicity

POLYETHYLENE GLYCOL MONOMETHYL ETHER	no data available
TRIETHYLENE GLYCOL MONOETHYL ETHER	LD 50 Rabbit: 8,200 mg/kg
TRIETHYLENE GLYCOL MONOMETHYL ETHER	no data available

Pyroil® DOT 3 BRAKE FLUID
PYBF12

TRIETHYLENE GLYCOL MONOBUTYL ETHER	LD 50 Rabbit: 3,502 mg/kg
TETRAETHYLENE GLYCOL	LD 50 Rabbit: 22,460 mg/kg
DIETHYLENE GLYCOL	LD 50 Rabbit: 11,890 mg/kg
TRISODIUM PHOSPHATE	LD 50 Rabbit: > 7,940 mg/kg
DIETHYLENE GLYCOL MONOBUTYL ETHER	LD 50 Rabbit: 2,700 mg/kg
DIISOPROPANOLAMINE	LD 50 Rabbit: 8,000 mg/kg

12. ECOLOGICAL INFORMATION

Aquatic toxicity

Acute and Prolonged Toxicity to Fish

No data

Acute Toxicity to Aquatic Invertebrates

No data

Environmental fate and pathways

No data

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

Pyroil® DOT 3 BRAKE FLUID
PYBF12**15. REGULATORY INFORMATION****California Prop. 65**

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

SARA Hazard Classification Acute Health Hazard**SARA 313 Component(s)**

TRIETHYLENE GLYCOL MONOETHYL ETHER	112-50-5	40.00%
TRIETHYLENE GLYCOL MONOMETHYL ETHER	112-35-6	30.00%
TRIETHYLENE GLYCOL MONOBUTYL ETHER	143-22-6	25.00%
DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	5.00%

New Jersey RTK Label Information

POLYETHYLENE GLYCOL MONOMETHYL ETHER	9004-74-4
TRIETHYLENE GLYCOL MONOETHYL ETHER	112-50-5
TRIETHYLENE GLYCOL MONOMETHYL ETHER	112-35-6
TRIETHYLENE GLYCOL MONOBUTYL ETHER	143-22-6
TETRAETHYLENE GLYCOL	112-60-7
POLYOXYETHYLENE MONOBUTYL ETHER	9004-77-7
TRISODIUM PHOSPHATE	7601-54-9
DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5

Pennsylvania RTK Label Information

DIISOPROPANOLAMINE	110-97-4
POLYGLYCOL	NJTS 254504001-5058
DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5
TRISODIUM PHOSPHATE	7601-54-9
Pentaethylene glycol	4792-15-8
DIETHYLENE GLYCOL	111-46-6
POLYOXYETHYLENE MONOBUTYL ETHER	9004-77-7
TETRAETHYLENE GLYCOL	112-60-7
TRIETHYLENE GLYCOL MONOBUTYL ETHER	143-22-6

ASHLAND
SAFETY DATA SHEET

Page: 11
Revision Date: 11/12/2009
Print Date: 2/22/2011
MSDS Number: R0197992
Version: 1.11

Pyroil® DOT 3 BRAKE FLUID
PYBF12

TRIETHYLENE GLYCOL MONOMETHYL ETHER	112-35-6
TRIETHYLENE GLYCOL MONOETHYL ETHER	112-50-5
POLYETHYLENE GLYCOL MONOMETHYL ETHER	9004-74-4

Reportable quantity - Product

US. EPA CERCLA Hazardous Substances (40 CFR 302)	100000 lbs
--	------------

Reportable quantity - Components

POLYETHYLENE GLYCOL	9004-74-4	none
MONOMETHYL ETHER		
TRIETHYLENE GLYCOL	112-50-5	none
MONOETHYL ETHER		
TRIETHYLENE GLYCOL	112-35-6	none
MONOMETHYL ETHER		
TRIETHYLENE GLYCOL	143-22-6	none
MONOBUTYL ETHER		
TETRAETHYLENE GLYCOL	112-60-7	none
DIETHYLENE GLYCOL	111-46-6	none
TRISODIUM PHOSPHATE	7601-54-9	5000 lbs
DIETHYLENE GLYCOL	112-34-5	none
MONOBUTYL ETHER		
DIISOPROPANOLAMINE	110-97-4	none

	Health	Flammability	Reactivity	Other
HMIS	2*	1	0	
NFPA	2	1	0	

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).