

The Valvoline Company

Date Prepared: 01/14/02

MSDS No: 503.0330094-001.003I

BRAKE FLUID DOT 4 BULK

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: BRAKE FLUID DOT 4 BULK

General or Generic ID: GLYCOL ETHER MIXTURE

Company

The Valvoline Company
P.O. Box 14000
Lexington, KY 40512

Telephone Numbers

Emergency: 1-800-274-5263
Information: 1-859-357-7206

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
MIXED ALKYL ESTER		35.0- 45.0
TRIETHYLENE GLYCOL MONOBUTYL ETHER	143-22-6	20.0- 30.0
TETRAETHYLENE GLYCOL MONOMETHYL ETHER	23783-42-8	5.0- 15.0
POLYETHYLENE GLYCOL	25322-68-3	5.0- 15.0
TRIETHYLENE GLYCOL MONOMETHYL ETHER	112-35-6	5.0- 15.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause eye irritation.

Skin

May cause mild skin irritation. Prolonged or repeated contact may dry and crack the 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).

Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation

It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring).

Symptoms of Exposure

mouth and throat irritation (soreness, dry or scratchy feeling, cough), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea,

headache, unconsciousness), kidney damage, liver damage.

Target Organ Effects

No data

Developmental Information

No data

Cancer Information

No data

Other Health Effects

No data

Primary Route(s) of Entry

Skin contact.

4. FIRST AID MEASURES

Eyes

If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing

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

First aid is not applicable.

Note to Physicians

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin.

5. FIRE FIGHTING MEASURES

Flash Point

> 250.0 F (121.1 C) PMCC

Explosive Limit

No data

Autoignition Temperature

590.0 F (310.0 C)

Hazardous Products of Combustion

May form: carbon dioxide and carbon monoxide, various hydrocarbons.

Fire and Explosion Hazards

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Extinguishing Media

alcohol foam, water fog, carbon dioxide, dry chemical.

Fire Fighting Instructions

Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter. Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating

Health - 1, Flammability - 1, Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Small Spill

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

Large Spill

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers.

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

Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Wear safety glasses in compliance with OSHA regulations. (Consult your safety representative.)

Skin Protection

Not required under normal conditions of use., Wear normal work clothing covering arms and legs..

Respiratory Protections

Not required under normal conditions of use.

Engineering Controls

Not required under normal conditions of use.

Exposure Guidelines

Component

MIXED ALKYL ESTER

No exposure limits established

TRIETHYLENE GLYCOL MONOBUTYL ETHER (143-22-6)

No exposure limits established

TETRAETHYLENE GLYCOL MONOMETHYL ETHER (23783-42-8)

No exposure limits established

POLYETHYLENE GLYCOL (25322-68-3)

No exposure limits established

TRIETHYLENE GLYCOL MONOMETHYL ETHER (112-35-6)

No exposure limits established

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

(for product) > 450.0 F (232.2 C) @ 760.00 mmHg

Vapor Pressure

No data

Specific Vapor Density

No data

Specific Gravity

1.060 @ 60.00 F

Liquid Density

8.840 lbs/gal @ 60.00 F

1.060 kg/l @ 15.60 C

Percent Volatiles (Including Water)

No data

Evaporation Rate

No data

Appearance

CLEAR

State

LIQUID

Physical Form

No data

Color

AMBER

Odor

MILD

pH

8.6 @ 25% AQUEOUSE SOLUTION

Freezing Point

< -58.0 F (-50.0 C)

Solubility in Water

SOLUBLE

10. STABILITY AND REACTIVITY

Hazardous Polymerization

Product will not undergo hazardous polymerization.

Hazardous Decomposition

May form: carbon dioxide and carbon monoxide, various hydrocarbons.

Chemical Stability

Stable.

Incompatibility

Avoid contact with: strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

No data

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

Waste Management Information

Destroy by liquid incineration. Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:
Not Regulated

Container/Mode:
CASES/SURFACE - NO EXCEPTIONS

NOS Component:
None

RQ (Reportable Quantity) - 49 CFR 172.101
Not applicable

15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status
TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4
None

SARA 302 Components - 40 CFR 355 Appendix A
None

Section 311/312 Hazard Class - 40 CFR 370.2
Immediate(X) Delayed(X) Fire() Reactive() Sudden
Release of Pressure()

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)	CAS Number
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TRIETHYLENE GLYCOL MONOBUTYL ETHER	143-22-6
TRIETHYLENE GLYCOL MONOMETHYL ETHER	112-35-6

International Regulations

Inventory Status
Not determined

State and Local Regulations

California Proposition 65
None

New Jersey RTK Label Information
TRIETHYLENE GLYCOL MONOBUTYL ETHER 143-22-6

Pennsylvania RTK Label Information
TRIETHYLENE GLYCOL MONOBUTYL ETHER 143-22-6

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.

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