



Material Safety Data Sheet

The Dow Chemical Company

Product Name: UCON(TM) Brake Fluid PM 6664

Issue Date: 12/09/2011

Print Date: 03 Jan 2012

The Dow Chemical Company encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. Product and Company Identification

Product Name

UCON(TM) Brake Fluid PM 6664

COMPANY IDENTIFICATION

The Dow Chemical Company
2030 Willard H. Dow Center
Midland, MI 48674
USA

Customer Information Number:

800-258-2436

SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact:

989-636-4400

Local Emergency Contact:

989-636-4400

2. Hazards Identification

Emergency Overview

Color: Colorless to yellow

Physical State: Liquid.

Odor: Pungent

Hazards of product:

WARNING! May cause allergic skin reaction. Isolate area.

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential Health Effects

Eye Contact: May cause slight temporary eye irritation. Corneal injury is unlikely.

Skin Contact: Brief contact is essentially nonirritating to skin.

Skin Absorption: Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Skin Sensitization: For the minor component(s): Skin contact may cause an allergic skin reaction.

Inhalation: Prolonged exposure is not expected to cause adverse effects.

®(TM)*Trademark

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Ingestion: Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

Effects of Repeated Exposure: Based on information for component(s): In animals, effects have been reported on the following organs: Kidney, Liver, Testes, Blood.

Birth Defects/Developmental Effects: For the major component(s): Has been toxic to the fetus in laboratory animals at doses toxic to the mother.

3. Composition Information

Component	CAS #	Amount
Triethylene glycol monomethyl ether	112-35-6	> 50.0 - < 60.0 %
Polyalkylene glycol monobutyl ether	9038-95-3	> 15.0 - < 25.0 %
Polyethylene glycol monomethyl ether	9004-74-4	> 5.0 - < 15.0 %
Triethylene glycol monobutyl ether	143-22-6	> 5.0 - < 15.0 %
Diethylene glycol monobutyl ether	112-34-5	< 10.0 %
Tetraethylene glycol monomethyl ether	23783-42-8	< 5.0 %
2-Piperazinoethanol	103-76-4	< 1.0 %

4. First-aid measures

Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air; if effects occur, consult a physician.

Skin Contact: Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

Eye Contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms and effects, both acute and delayed

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), no additional symptoms and effects are anticipated.

Indication of immediate medical attention and special treatment needed

No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire Fighting Measures

Suitable extinguishing media

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Extinguishing Media to Avoid: Do not use direct water stream. May spread fire.

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Special hazards arising from the substance or mixture

Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide, Carbon dioxide. Combustion products may include trace amounts of: Nitrogen oxides.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Inhalation, Skin, Mucous and Eye Contact Prevention: Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Small spills: Absorb with materials such as: Sand, Vermiculite. Collect in suitable and properly labeled containers. Large spills: Contain spilled material if possible. Pump into suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

7. Handling and Storage**Handling**

General Handling: Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.
Other Precautions: Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

Storage

Store in the following material(s): Carbon steel. Stainless steel. Phenolic lined steel drums. Do not store in: Aluminum. Copper. Galvanized iron. Galvanized steel.

Shelf life: Use within 12 Months
Storage temperature: 10 - 35 °C

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8. Exposure Controls / Personal Protection

Exposure Limits

Component	List	Type	Value
Diethylene glycol monobutyl ether	Dow IHG	TLWA	35 ppm

Personal Protection

Eye/Face Protection: Use safety glasses (with side shields).

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber, Polyethylene, Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"), Neoprene, Nitrile/butadiene rubber ("nitrile" or "NBR"), Polyvinyl chloride ("PVC" or "vinyl"), Viton. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge.

Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls

Ventilation: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

9. Physical and Chemical Properties

Appearance

Physical State

Liquid.

Color

Colorless to yellow

Odor

Pungent

Odor Threshold

No test data available

pH

8 - 11 *Estimated.*

Melting Point

Not applicable

Freezing Point

-59 °C (-74 °F) *Estimated.*

Boiling Point (760 mmHg)

232 °C (450 °F) FMVSS 116 Equilibrium Reflux Boiling Point, dry.
140 °C (284 °F) FMVSS 116 Equilibrium Reflux Boiling Point, wet.

Flash Point - Closed Cup

123 °C (253 °F) ASTM D93

Flammability (solid, gas)

Not applicable to liquids

Flammable Limits in Air

Lower: No test data available

Upper: No test data available

Vapor Pressure

< 0.01 mmHg @ 20 °C *Measured*

Vapor Density (air = 1)

No test data available

Specific Gravity (H₂O = 1)

1.04 20 °C/20 °C *Estimated.*

Solubility in water (by weight)

100 % @ 20 °C *Estimated.*

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Partition coefficient, n-octanol/water (log Pow)	No test data available
Autoignition Temperature	No test data available
Decomposition Temperature	No test data available
Kinematic Viscosity	900 mm ² /s @ -40 °C Literature
Percent Volatiles	No test data available
Particle Size	No test data available
Saturated Vapor Concentration	No test data available

10. Stability and Reactivity

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical stability

Thermally stable at typical use temperatures.

Possibility of hazardous reactions

Polymerization will not occur.

Conditions to Avoid: Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible Materials: Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

Hazardous decomposition products

Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes. Alcohols. Ethers. Hydrocarbons. Ketones. Organic acids. Polymer fragments.

11. Toxicological Information

Acute Toxicity

Ingestion

For the component(s) tested: LD50, rat > 5,600 mg/kg

Dermal

For component(s) tested: LD50, rat > 3,480 mg/kg

Eye damage/eye irritation

May cause slight temporary eye irritation. Corneal injury is unlikely.

Skin corrosion/irritation

Brief contact is essentially nonirritating to skin.

Sensitization

Skin

For the minor component(s): Skin contact may cause an allergic skin reaction.

Respiratory

No relevant data found.

Repeated Dose Toxicity

Based on information for component(s): In animals, effects have been reported on the following organs: Kidney. Liver. Testes. Blood.

Chronic Toxicity and Carcinogenicity

No relevant data found.

Developmental Toxicity

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For the major component(s): Has been toxic to the fetus in laboratory animals at doses toxic to the mother. For the component(s) tested: Did not cause birth defects in laboratory animals.

Reproductive Toxicity

The data presented are for the following material: Diethylene glycol monobutyl ether. In animal studies; did not interfere with reproduction. However, body weights of newborn animals were decreased.

Genetic Toxicology

For the component(s) tested: In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

12. Ecological Information

Toxicity**Data for Component: Triethylene glycol monomethyl ether**

Material is practically non-toxic to aquatic organisms on an acute basis
(LC50/EC50/EL50/LL50 > 100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC50, Danio rerio (zebra fish), static test, 96 h: > 5,000 mg/l

Aquatic Invertebrate Acute Toxicity

EC50, Daphnia magna (Water flea), static test, 48 h, immobilization: > 500 mg/l

Aquatic Plant Toxicity

ErC50, Scenedesmus subspicatus (new name: Desmodesmus subspicatus), static test, Growth rate inhibition, 72 h: > 500 mg/l

Toxicity to Micro-organisms

EC0, EU Method C 11 (Biodegradation: Activated Sludge Respiration Inhibition Test); activated sludge, static, 0.5 h: > 2,000 mg/l

Data for Component: Polyethylene glycol monobutyl ether

Material is practically non-toxic to aquatic organisms on an acute basis
(LC50/EC50/EL50/LL50 > 100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC50, Pimephales promelas (fathead minnow), static test, 96 h: 13,000 mg/l

Aquatic Invertebrate Acute Toxicity

EC50, Daphnia magna (Water flea), static test, 48 h, immobilization: 5,400 mg/l

Toxicity to Micro-organisms

EC50, Bacteria, 16 h: 40,000 mg/l

Data for Component: Polyethylene glycol monomethyl ether

For this family of materials: Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 > 100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

For this family of materials: LC50, Pimephales promelas (fathead minnow), 96 h: > 10,000 mg/l

Aquatic Invertebrate Acute Toxicity

For this family of materials: EC50, Daphnia magna (Water flea), 48 h: > 10,000 mg/l

Data for Component: Triethylene glycol monobutyl ether

Material is practically non-toxic to aquatic organisms on an acute basis
(LC50/EC50/EL50/LL50 > 100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC50, Leuciscus idus (Golden orfe), static test, 96 h: 2,200 - 4,600 mg/l

Aquatic Invertebrate Acute Toxicity

EC50, Daphnia magna (Water flea), static test, 48 h, immobilization: > 500 mg/l

Aquatic Plant Toxicity

EC50, static test, Growth rate inhibition, 72 h: 62.5 mg/l

Toxicity to Micro-organisms

EC50, Bacteria, static, 16 h: > 5,000 mg/l

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Data for Component: Diethylene glycol monobutyl ether

Material is practically non-toxic to aquatic organisms on an acute basis
(LC50/EC50/E₅₀/LL50 > 100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC50, *Lepomis macrochirus* (Bluegill sunfish), static test, 96 h: 1,300 mg/l

Aquatic Invertebrate Acute Toxicity

EC50, *Daphnia magna* (Water flea), static test, 48 h, immobilization: > 100 mg/l

Aquatic Plant Toxicity

EC50, alga *Scenedesmus* sp., static test, Growth rate inhibition, 96 h: > 100 mg/l

EC50, alga *Scenedesmus* sp., static test, biomass growth inhibition, 96 h: > 100 mg/l

Toxicity to Micro-organisms

EC50; Bacteria, static: 255 mg/l

Data for Component: Tetraethylene glycol monomethyl ether

Material is practically non-toxic to aquatic organisms on an acute basis
(LC50/EC50/E₅₀/LL50 > 100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC50, *Danio rerio* (zebra fish), static test, 96 h: > 10,000 mg/l

Aquatic Invertebrate Acute Toxicity

LC50, *Daphnia magna* (Water flea), static test, 48 h: > 10,000 mg/l

Aquatic Plant Toxicity

EC50, alga *Scenedesmus* sp., biomass growth inhibition, 72 h: > 500 mg/l

Toxicity to Micro-organisms

EC50; Bacteria, 16 h: > 5,000 mg/l

EC50, OECD 209 Test; activated sludge, 3 h: > 12,500 mg/l

Data for Component: 2-Piperazinoethanol

Material is practically non-toxic to fish on an acute basis (LC50 > 100 mg/L).

Fish Acute & Prolonged Toxicity

LC50, *Pimephales promelas* (fathead minnow), flow-through test, 96 h: 6,410 mg/l

Aquatic Invertebrate Acute Toxicity

LC50, *Daphnia magna* (Water flea), 48 h, lethality: 384 mg/l

Toxicity to Micro-organisms

EC50, hUCC; Bacteria, 16 h: > 5,000 mg/l

Persistence and DegradabilityData for Component: Triethylene glycol monomethyl ether

Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%). Material is ultimately biodegradable (reaches > 70% biodegradation in OECD test(s) for inherent biodegradability).

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
100 %	13 d	OECD 301B Test	pass

Indirect Photodegradation with OH Radicals

Rate Constant	Atmospheric Half-life	Method
4.00E-11 cm ³ /s	3.2 h	Estimated.

Biological oxygen demand (BOD):

BOD 5	BOD 10	BOD 20	BOD 28
29 %	33 %	71 %	

Theoretical Oxygen Demand: 1.75 mg/mg

Data for Component: Polyalkylene glycol monobutyl ether

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
65 %	28 d	OECD 301B Test	pass

Biological oxygen demand (BOD):

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BOD 5	BOD 10	BOD 20	BOD 28
7 %	10 %	21 %	
Chemical Oxygen Demand: 1.75 mg/mg			

Data for Component: Polyethylene glycol monomethyl ether

For this family of materials: Biodegradation under aerobic static laboratory conditions is low (BOD20 or BOD28/ThOD between 2.5 and 10%).

Data for Component: Triethylene glycol monobutyl ether

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% biodegradation in OECD test(s) for inherent biodegradability).

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
85 %	28 d	OECD 301D Test	fail

Theoretical Oxygen Demand: 2.10 mg/mg

Data for Component: Diethylene glycol monobutyl ether

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
89 - 93 %	28 d	OECD 301C Test	Not applicable
100 %	28 d	OECD 302B Test	Not applicable

Indirect Photodegradation with OH Radicals

Rate Constant	Atmospheric Half-life	Method
3.62E-11 cm ³ /s	11 h	Estimated.

Biological oxygen demand (BOD):

BOD 5	BOD 10	BOD 20	BOD 28
27 %	60 %	81 %	

Theoretical Oxygen Demand: 2.17 mg/mg

Data for Component: Tetraethylene glycol monomethyl ether

Material is expected to be readily biodegradable.

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
99 %	8 d	OECD 302B Test	Not applicable

Data for Component: 2-Piperazinoethanol

Biodegradation under aerobic static laboratory conditions is moderate (BOD20 or BOD28/ThOD between 10 and 40%).

Indirect Photodegradation with OH Radicals

Rate Constant	Atmospheric Half-life	Method
1.8658E-10 cm ³ /s	0.057 d	Estimated.

Biological oxygen demand (BOD):

BOD 5	BOD 10	BOD 20	BOD 28
3 - 5 %	3 - 6 %	6 - 13 %	

Chemical Oxygen Demand: 1.81 mg/mg

Theoretical Oxygen Demand: 2.83 mg/mg

Bioaccumulative potentialData for Component: Triethylene glycol monomethyl ether

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient, n-octanol/water (log Pow): -1.12 Measured

Data for Component: Polyethylene glycol monobutyl ether

Bioaccumulation: No bioconcentration is expected because of the relatively high water solubility.

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Data for Component: Polyethylene glycol monomethyl ether

Bioaccumulation: For this family of materials. No bioconcentration is expected because of the relatively high water solubility.

Data for Component: Triethylene glycol monobutyl ether

Bioaccumulation: Bioconcentration potential is low ($BCF < 100$ or $\log Pow < 3$).
Partition coefficient, n-octanol/water ($\log Pow$): 0.51 Measured

Data for Component: Diethylene glycol monobutyl ether

Bioaccumulation: Bioconcentration potential is low ($BCF < 100$ or $\log Pow < 3$).
Partition coefficient, n-octanol/water ($\log Pow$): 1 Measured

Data for Component: Tetraethylene glycol monomethyl ether

Bioaccumulation: Bioconcentration potential is low ($BCF < 100$ or $\log Pow < 3$).
Partition coefficient, n-octanol/water ($\log Pow$): -1.73 Estimated.

Data for Component: 2-Piperazinoethanol

Bioaccumulation: Bioconcentration potential is low ($BCF < 100$ or $\log Pow < 3$).
Partition coefficient, n-octanol/water ($\log Pow$): -1.56 Estimated.

Mobility in soilData for Component: Triethylene glycol monomethyl ether

Mobility in soil: Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient, soil organic carbon/water (Koc): 10 Estimated.
Henry's Law Constant (H): $2.66E-09 \text{ atm}^3/\text{mole}$; 25°C Estimated.

Data for Component: Polyethylene glycol monobutyl ether

Mobility in soil: No data available.

Data for Component: Polyethylene glycol monomethyl ether

Mobility in soil: No data available.

Data for Component: Triethylene glycol monobutyl ether

Mobility in soil: Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient, soil organic carbon/water (Koc): 10 Estimated.
Henry's Law Constant (H): $6.79E-10 \text{ atm}^3/\text{mole}$; 25°C Estimated.

Data for Component: Diethylene glycol monobutyl ether

Mobility in soil: Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process. Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient, soil organic carbon/water (Koc): 2 Estimated.
Henry's Law Constant (H): $1.52E-09 \text{ atm}^3/\text{mole}$; 25°C Estimated.

Data for Component: Tetraethylene glycol monomethyl ether

Mobility in soil: Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient, soil organic carbon/water (Koc): 10 Estimated.
Henry's Law Constant (H): $1.57E-13 \text{ atm}^3/\text{mole}$

Data for Component: 2-Piperazinoethanol

Mobility in soil: Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient, soil organic carbon/water (Koc): 7 Estimated.
Henry's Law Constant (H): $3.53E-10 \text{ atm}^3/\text{mole}$; 25°C Estimated.

13. Disposal Considerations

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

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Treatment and disposal methods of used packaging: Empty containers should be recycled or otherwise disposed of by an approved waste management facility. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. Do not re-use containers for any purpose.

14. Transport Information

DOT Non-Bulk
NOT REGULATED

DOT Bulk
NOT REGULATED

IMDG
NOT REGULATED

ICAO/IATA
NOT REGULATED

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. Regulatory Information

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard	Yes
Delayed (Chronic) Health Hazard	No
Fire Hazard	No
Reactive Hazard	No
Sudden Release of Pressure Hazard	No

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Component	CAS #	Amount
Triethylene glycol monomethyl ether	112-35-6	> 50.0 - < 60.0 %
Triethylene glycol monobutyl ether	143-22-6	> 5.0 - < 15.0 %
Diethylene glycol monobutyl ether	112-34-5	< 10.0 %

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:

The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

Component	CAS #	Amount
Triethylene glycol monomethyl ether	112-35-6	> 50.0 - < 60.0 %
Triethylene glycol monobutyl ether	143-22-6	> 5.0 - < 15.0 %
Diethylene glycol monobutyl ether	112-34-5	< 10.0 %

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Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

US. Toxic Substances Control Act

All components of this product are either on the TSCA Inventory, are exempt from TSCA Inventory Requirements under 40 CFR 720.30, or comply with the PMN Polymer Exemption 40 CFR 723.250.

US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

The following product components are cited in the New Jersey Special Hazardous Substance List: To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

The following product components are cited in the New Jersey Environmental Hazardous and Workplace Hazardous Substance Lists:

Component	CAS #	Amount
Triethylene glycol monomethyl ether	112-35-6	> 50.0 - < 60.0 %
Triethylene glycol monobutyl ether	143-22-6	> 5.0 - < 15.0 %
Diethylene glycol monobutyl ether	112-34-5	< 10.0 %

16. Other Information**Product Literature**

Additional information on this product may be obtained by calling your sales or customer service contact.

Hazard Rating System

NFPA	Health	Fire	Reactivity
	2	1	0

Recommended Uses and Restrictions**Identified uses**

Brake fluid formulations. For use in automotive applications.

Revision

Identification Number: 1431 / 1001 / Issue Date 12/09/2011 / Version: 6.1

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.

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DOW IHG	Dow Industrial Hygiene Guideline
WEEL	Workplace Environmental Exposure Level
HAZ DES	Hazard Designation
Action Level	A value set by OSHA that is lower than the PEL which will trigger the need for activities such as exposure monitoring and medical surveillance if exceeded.

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