FRSC Chemical Solutions

SAFETY DATA SHEET

1. Identification

Product identifier Motor Medic Heavy Duty Brake Fluid - DOT 3

Other means of identification

SDS number M4412

Part No. M4412, M4432, M4434, M4440, M4449

Tariff code 3819.00.0010

Recommended use DOT 3 Brake Fluid

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name
Address
RSC Chemical Solutions
600 Radiator Road
Indian Trail, NC 28079

United States

Telephone Customer Service: (704) 821-7643

Technical: (704) 684-1811

Website www.rscbrands.com

E-mail Not available.

Emergency phone number Emergency Telephone: (303) 623-5716

Emergency Contact: RMPDC (877-740-5015)

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Serious eye damage/eye irritation Category 2

Reproductive toxicity (the unborn child)

Category 2

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Warning

Hazard statement Causes serious eye irritation. Suspected of damaging the unborn child.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye

protection/face protection.

Response If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If eye

irritation persists: Get medical advice/attention.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2-(2-butoxyéthoxy) Éthanol		112-34-5	5 - < 10
Diethyleneglycol		111-46-6	5 - < 10
Polyethyleneglycol		25322-68-3	5 - < 10
Diethylene Glycol Methyl Ether		111-77-3	1 - < 3
Diethylenglykolmonoethylether		111-90-0	1 - < 3
Other components below reportable leve	els		70 - < 80

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Wash off with soap and water. Get medical attention if irritation develops and persists. Skin contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if Eye contact

present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Rinse mouth. Get medical attention if symptoms occur. Ingestion

Most important symptoms/effects, acute and delayed

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred

vision.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice **General information** (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in

attendance.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media

Specific hazards arising from the chemical

Special protective equipment

and precautions for firefighters

Fire fighting equipment/instructions

Specific methods

General fire hazards

Powder. Alcohol resistant foam. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

During fire, gases hazardous to health may be formed.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Move containers from fire area if you can do so without risk.

Use standard firefighting procedures and consider the hazards of other involved materials.

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Avoid discharge into drains, water courses or onto the ground. **Environmental precautions**

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Provide adequate ventilation. Avoid contact with eyes. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH	Threshold	Limit '	Values
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Components	Туре	Value	Form
2-(2-butoxyéthoxy) Éthanol (CAS 112-34-5)	TWA	10 ppm	Inhalable fraction and vapor.
US. Workplace Environmental Exp	posure Level (WEEL) Guides		
Components	Туре	Value	Form
Diethyleneglycol (CAS 111-46-6)	TWA	10 mg/m3	
Diethylenglykolmonoethylet her (CAS 111-90-0)	TWA	140 mg/m3	
,		25 ppm	
Polyethyleneglycol (CAS 25322-68-3)	TWA	10 mg/m3	Particulate.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Chemical respirator with organic vapor cartridge and full facepiece. Eye/face protection

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove

supplier.

Other Wear suitable protective clothing. Use of an impervious apron is recommended.

Chemical respirator with organic vapor cartridge and full facepiece. Respiratory protection

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective

equipment to remove contaminants.

9. Physical and chemical properties

Appearance Liquid. Clear. Physical state Liquid.

Form Liquid.

Yellow to light amber Color

Odor Mild

Odor threshold Not available. 10 - 11.5

-90.58 °F (-68.1 °C) estimated Melting point/freezing point Initial boiling point and boiling 446.72 °F (230.4 °C) estimated

range

Not available. Flash point < 0.01 BuAc **Evaporation rate**

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

(%)

Flammability limit - upper

Flammability limit - lower

Not available.

Not available.

(%)

Explosive limit - lower (%) Not available. Explosive limit - upper (%) Not available.

Vapor pressure 0.01 hPa estimated

Vapor density Not available. Relative density Not available.

Solubility(ies)

Not available. Solubility (water) Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature 442 °F (227.78 °C) estimated

Decomposition temperature Not available. **Viscosity** Not available.

Other information

Density 8.33 - 9.02 lbs/gal **Explosive properties** Not explosive. Oxidizing properties Not oxidizing. 23.19 % estimated Percent volatile

1 - 1.07 Specific gravity

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition

products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.

Skin contact No adverse effects due to skin contact are expected.

Eye contact Causes serious eye irritation.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred

vision.

Information on toxicological effects

Acute toxicity

Components **Test Results Species**

2-(2-butoxyéthoxy) Éthanol (CAS 112-34-5)

Acute

Dermal

LD50 Rabbit 2700 mg/kg

Material name: Motor Medic Heavy Duty Brake Fluid - DOT 3 M4412, M4432, M4434, M4440, M4449 Version #: 01 Issue date: 04-13-2015

omponents	Species	Test Results
Oral		
LD50	Guinea pig	2000 mg/kg
	Mouse	2400 mg/kg
	Rabbit	2200 mg/kg
	Rat	4500 mg/kg
ethylene Glycol Methyl Et	her (CAS 111-77-3)	
<u>Acute</u>		
Dermal		
LD50	Rabbit	6540 mg/kg
Oral		
LD50	Guinea pig	4160 mg/kg
		4.16 g/kg
	Mouse	8222 mg/kg
	Rabbit	7.19 g/kg
	Rat	5500 mg/kg
ethyleneglycol (CAS 111-	46-6)	
<u>Acute</u>		
Dermal		
LD50	Rabbit	11890 mg/kg
Oral		0000 #
LD50	Cat	3300 mg/kg
	Dog	9000 mg/kg
	Guinea pig	8700 mg/kg
	Mouse	13.3 g/kg
	Rabbit	26.9 g/kg
	Rat	12565 mg/kg
ethylenglykolmonoethyletl	her (CAS 111-90-0)	
<u>Acute</u>		
Dermal		
LD50	Guinea pig	5900 mg/kg
	Mouse	6000 mg/kg
	Rabbit	8476 mg/kg
	Rat	6000 mg/kg
Oral		
LD50	Guinea pig	3000 mg/kg
	Mouse	6.58 g/kg
	Rabbit	3620 mg/kg
	Rat	1920 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye

irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Suspected of damaging the unborn child. Reproductive toxicity

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Not classified.

Not an aspiration hazard. **Aspiration hazard**

Prolonged inhalation may be harmful. **Chronic effects**

12. Ecological information

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

	, ,		3 3
Components		Species	Test Results
2-(2-butoxyéthoxy) Ét	thanol (CAS 112-34-	-5)	
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	1300 mg/l, 96 hours
Diethylene Glycol Me	thyl Ether (CAS 111	-77-3)	
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	7500 mg/l, 96 hours
Diethyleneglycol (CAS	S 111-46-6)		
Aquatic			
Fish	LC50	Western mosquitofish (Gambusia affinis)	> 32000 mg/l, 96 hours
Diethylenglykolmonoe	ethylether (CAS 111	-90-0)	
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	> 10000 mg/l, 96 hours
Polyethyleneglycol (C	AS 25322-68-3)		

^{*} Estimates for product may be based on additional component data not shown.

Persistence and degradability

No data is available on the degradability of this product.

Atlantic salmon (Salmo salar)

Bioaccumulative potential

Aquatic Fish

Partition coefficient n-octanol / water (log Kow)

2-(2-butoxyéthoxy) Éthanol 0.56 Diethylenglykolmonoethylether -0.54

LC50

No data available. Mobility in soil

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

> 1000 mg/l, 96 hours

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of

contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Since emptied containers may retain product residue, follow label warnings even after container is Contaminated packaging

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

Material name: Motor Medic Heavy Duty Brake Fluid - DOT 3

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Not established.

Annex II of MARPOL 73/78 and

the IBC Code

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

2-(2-butoxyéthoxy) Éthanol (CAS 112-34-5) Listed. Diethylene Glycol Methyl Ether (CAS 111-77-3) Listed. Diethylenglykolmonoethylether (CAS 111-90-0) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No

chemical

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.	
2-(2-butoxyéthoxy) Éthanol	112-34-5	5 - < 10	
Diethylene Glycol Methyl Ether	111-77-3	1 - < 3	
Diethylenglykolmonoethylether	111-90-0	1 - < 3	

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

2-(2-butoxyéthoxy) Éthanol (CAS 112-34-5)

Diethylene Glycol Methyl Ether (CAS 111-77-3)

Diethylenglykolmonoethylether (CAS 111-90-0)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act Not regulated.

(SDWA)

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd.

(a))

2-(2-butoxyéthoxy) Éthanol (CAS 112-34-5)

Diethylene Glycol Methyl Ether (CAS 111-77-3)

Diethylenglykolmonoethylether (CAS 111-90-0)

US. Massachusetts RTK - Substance List

Diethylene Glycol Methyl Ether (CAS 111-77-3)

US. New Jersey Worker and Community Right-to-Know Act

2-(2-butoxyéthoxy) Éthanol (CAS 112-34-5) Diethylene Glycol Methyl Ether (CAS 111-77-3) Diethylenglykolmonoethylether (CAS 111-90-0)

US. Pennsylvania Worker and Community Right-to-Know Law

2-(2-butoxyéthoxy) Éthanol (CAS 112-34-5) Diethylene Glycol Methyl Ether (CAS 111-77-3)

Diethyleneglycol (CAS 111-46-6)

Diethylenglykolmonoethylether (CAS 111-90-0)

US. Rhode Island RTK

2-(2-butoxyéthoxy) Éthanol (CAS 112-34-5) Diethylene Glycol Methyl Ether (CAS 111-77-3) Diethylenglykolmonoethylether (CAS 111-90-0)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(a) or region

Country(s) or region	inventory name	On inventory (yes/no)"
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Toxic Substances Control Act (TSCA) Inventory

16. Other information, including date of preparation or last revision

Inventory name

04-13-2015 Issue date

Version # 01

United States & Puerto Rico

HMIS® ratings Health: 2*

Flammability: 0 Physical hazard: 0

Health: 2 NFPA ratings

Flammability: 0 Instability: 0

NFPA ratings



Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Yes

On inventory (vec/ne)*