MAG1 DOT 3 & 4 BRAKE FLUID 12 FL. OZ.

Safety Data Sheet

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

1.1. Product identifier

Product form : Mixture

Trade name : MAG1 DOT 3 & 4 BRAKE FLUID 12 FL. OZ.

Product code : 70489

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

Use of the substance/mixture : Brake Fluid

1.3. Details of the supplier of the safety data sheet

Highline-Warren
4500 Malone RD #2
Memphis, TN 38118
T 901.755.5555

1.4. Emergency telephone number

Emergency number : CHEMTREC 24 Hour 1-800-424-9300, 1-703-527-3887 (International)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 2	H315 Causes skin irritation
Serious eye damage/eye irritation Category 1	H318 Causes serious eye damage
Specific target organ toxicity (repeated exposure) Category 2	H373 May cause damage to organs through prolonged or repeated exposure

Full text of H- and EUH-statements: see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger

Hazard statements (GHS US) : H315 - Causes skin irritation
H318 - Causes serious eye damage
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS US) : P260 - Do not breathe dust,fumes,gas,mist,vapor spray
P264 - Wash affected areas thoroughly after handling
P280 - Wear protective gloves,protective clothing,eye protection,face protection
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.
P310 - Immediately call a poison center,doctor, physician
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment: See section 4.1 on SDS
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

2.3. Other hazards

Other hazards which do not result in classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Triethyleneglycol Monoethyl Ether	(CAS-No.) 112-50-5	35 – 40	Not classified

Name	Product identifier	%	GHS US classification
Butyl Triglycolether	(CAS-No.) 143-22-6	10 – 30	Eye Dam. 1, H318
Triethylene Glycol Monomethyl Ether	(CAS-No.) 112-35-6	5 – 25	Not classified
Diethylene Glycol	(CAS-No.) 111-46-6	5 – 20	STOT RE 2, H373
Methoxypolyethyleneglycols	(CAS-No.) 9004-74-4	0 – 15	Not classified
Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-hydroxy-	(CAS-No.) 9004-77-7	0 – 15	Not classified
Polyethylene Glycol	(CAS-No.) 25322-68-3	6 – 14	Not classified
2-(2-Butoxyethoxy) Ethanol	(CAS-No.) 112-34-5	5 – 10	Eye Irrit. 2, H319
Triethyleneglycol	(CAS-No.) 112-27-6	0 – 10	Not classified
Diethyleneglycolmonoethyl Ether	(CAS-No.) 111-90-0	3 – 5	Eye Irrit. 2A, H319
{Diisopropanolamine (110=97-4)}	(CAS-No.) 110-97-4	0 – 1	Eye Irrit. 2, H319

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 : Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/effects : Causes damage to organs.

Symptoms/effects after skin contact : May cause moderate irritation. Itching. Red skin. Skin rash/inflammation. Causes skin irritation.

Symptoms/effects after eye contact : Irritation of the eye tissue. Inflammation/damage of the eye tissue. Redness of the eye tissue. Causes serious eye damage.

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 : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Safety glasses.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

For containment : Dam up the liquid spill. Plug the leak, cut off the supply. Contain released product, collect/pump into suitable containers.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing dust,fume,gas,mist,vapor spray.
Hygiene measures	:	Wash contaminated clothing before reuse. Take off immediately all contaminated clothing and wash it before reuse. Observe normal hygiene standards. Keep container tightly closed. Always wash hands after handling the product. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Wash affected areas thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Proper grounding procedures to avoid static electricity should be followed.
Storage conditions	:	Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
Incompatible products	:	Strong bases. Strong acids.
Incompatible materials	:	Sources of ignition. Direct sunlight.
Storage area	:	Keep only in the original container.
Special rules on packaging	:	Keep only in original container.

7.3. Specific end use(s)

Follow Label Directions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

MAG1 DOT 3 & 4 BRAKE FLUID 12 FL. OZ.	
No additional information available	
Triethyleneglycol Monoethyl Ether (112-50-5)	
No additional information available	
Butyl Triglycolether (143-22-6)	
No additional information available	
Polyethylene Glycol (25322-68-3)	
No additional information available	
2-(2-Butoxyethoxy) Ethanol (112-34-5)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	10 ppm (Inhalable fraction and vapor)
Diethylene Glycol (111-46-6)	
No additional information available	
Diethyleneglycolmonoethyl Ether (111-90-0)	
No additional information available	
Triethyleneglycol (112-27-6)	
No additional information available	
Methoxypolyethyleneglycols (9004-74-4)	
No additional information available	
Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-hydroxy- (9004-77-7)	
No additional information available	
Triethylene Glycol Monomethyl Ether (112-35-6)	
No additional information available	
{Diisopropanolamine (110=97-4)} (110-97-4)	
No additional information available	

8.2. Appropriate engineering controls

Appropriate engineering controls	:	Local exhaust venilation, vent hoods . Ensure good ventilation of the work station.
Environmental exposure controls	:	Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. Safety glasses. Avoid all unnecessary exposure.

Materials for protective clothing:

Excellent resistance:

Hand protection:

Wear protective gloves

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear appropriate mask

Personal protective equipment symbol(s):

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid.
Color	:	Amber. Yellow.
Odor	:	Mild . Ammoniacal.
Odor threshold	:	No data available
pH	:	9 – 11
Relative evaporation rate (butyl acetate=1)	:	No data available
Melting point	:	< -59 °C
Freezing point	:	No data available
Boiling point	:	> 257 °C Dry ERBP
Flash point	:	203 °C
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability	:	No data available
Vapor pressure	:	< 0.01 mm Hg Estimated
Relative vapor density at 20 °C	:	> 10
Relative density	:	1.03 – 1.08
Solubility	:	Soluble in water. Water: 100% Estimated
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Partition coefficient n-octanol/water (Log Kow)	:	No data available
Viscosity, kinematic	:	< 1500 cSt
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Explosion limits	:	No data available

9.2. Other information

VOC content	:	0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Oxidizing agent. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Toxic fume. . Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Triethyleneglycol Monoethyl Ether (112-50-5)	
LD50 oral rat	10610 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	3540 mg/kg body weight (24 h, Rabbit, Male, Read-across, Dermal, 14 day(s))
ATE US (oral)	10610 mg/kg body weight
ATE US (dermal)	3540 mg/kg body weight

Butyl Triglycolether (143-22-6)	
LD50 oral rat	5170 mg/kg body weight (according to BASF-internal standards, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	3540 mg/kg body weight (24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
ATE US (oral)	5170 mg/kg body weight
ATE US (dermal)	3540 mg/kg body weight

Polyethylene Glycol (25322-68-3)	
LD50 oral rat	30200 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit, Inconclusive, insufficient data, Dermal)
ATE US (oral)	30200 mg/kg body weight

2-(2-Butoxyethoxy) Ethanol (112-34-5)	
LD50 dermal rabbit	2764 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
ATE US (dermal)	2764 mg/kg body weight

Diethylene Glycol (111-46-6)	
LD50 oral rat	16500 mg/kg body weight (Rat, Male / female, Experimental value, Oral, 5 day(s))
LD50 dermal rabbit	13300 mg/kg body weight (Rabbit, Experimental value, Dermal, 14 day(s))
ATE US (oral)	16500 mg/kg body weight
ATE US (dermal)	13300 mg/kg body weight

Diethyleneglycolmonoethyl Ether (111-90-0)	
LD50 dermal rabbit	9143 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
ATE US (dermal)	9143 mg/kg body weight

Triethyleneglycol (112-27-6)	
LD50 oral rat	> 5000 mg/kg (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 5.2 mg/l (4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))

Methoxypolyethyleneglycols (9004-74-4)	
LD50 oral rat	> 2000 mg/kg body weight (Rat, Oral)
LD50 dermal rabbit	> 2000 mg/kg body weight (Rabbit, Dermal)

Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-hydroxy- (9004-77-7)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))

Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-hydroxy- (9004-77-7)	
LD50 dermal rabbit	3540 mg/kg body weight (Modification of Draize 1959 method, 24 h, Rabbit, Male, Read-across, Dermal, 14 day(s))
ATE US (dermal)	3540 mg/kg body weight

Triethylene Glycol Monomethyl Ether (112-35-6)	
LD50 oral rat	> 10500 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	7.1 ml/kg (24 h, Rabbit, Male, Experimental value, Dermal)
ATE US (dermal)	7455 mg/kg body weight

{Diisopropanolamine (110=97-4)} (110-97-4)	
LD50 dermal rabbit	8000 mg/kg body weight (24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
ATE US (dermal)	8000 mg/kg body weight

Skin corrosion/irritation : Causes skin irritation.
pH: 9 – 11

Serious eye damage/irritation : Causes serious eye damage.
pH: 9 – 11

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Diethylene Glycol (111-46-6)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Viscosity, kinematic : < 1500 mm²/s

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/effects : Causes damage to organs.

Symptoms/effects after skin contact : May cause moderate irritation. Itching. Red skin. Skin rash/inflammation. Causes skin irritation.

Symptoms/effects after eye contact : Irritation of the eye tissue. Inflammation/damage of the eye tissue. Redness of the eye tissue. Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

Triethyleneglycol Monoethyl Ether (112-50-5)	
LC50 - Fish [1]	> 10000 mg/l (96 h, Pimephales promelas, Static system, Experimental value, Nominal concentration)
ErC50 algae	> 500 mg/l (UBA, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Weight of evidence, Nominal concentration)

Butyl Triglycolether (143-22-6)	
LC50 - Fish [1]	2200 – 4600 mg/l (DIN 38412-15, 96 h, Leuciscus idus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 500 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	840 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)

Polyethylene Glycol (25322-68-3)	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Poecilia reticulata, Static system, Fresh water, Experimental value, Nominal concentration)
LC50 - Other aquatic organisms [1]	> 1000 mg/l (96 h)

2-(2-Butoxyethoxy) Ethanol (112-34-5)	
LC50 - Fish [1]	1300 mg/l (Equivalent or similar to OECD 203, 96 h, Lepomis macrochirus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 100 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 96 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)

Diethylene Glycol (111-46-6)	
LC50 - Fish [1]	75200 mg/l (96 h, Pimephales promelas, Flow-through system, Experimental value, Lethal)
EC50 - Crustacea [1]	> 10000 mg/l (DIN 38412-11, 24 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)

Diethyleneglycolmonoethyl Ether (111-90-0)	
LC50 - Fish [1]	6010 mg/l (Equivalent or similar to OECD 203, 96 h, Ictalurus punctatus, Flow-through system, Fresh water, Experimental value, Lethal)
ErC50 algae	14861 mg/l (Equivalent or similar to OECD 201, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)

Triethyleneglycol (112-27-6)	
LC50 - Fish [1]	> 10000 mg/l (96 h, Lepomis macrochirus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 10000 mg/l (DIN 38412-11, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)

Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-hydroxy- (9004-77-7)	
LC50 - Fish [1]	> 1800 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Scophthalmus maximus, Semi-static system, Salt water, Experimental value, GLP)
EC50 - Crustacea [1]	> 3200 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, GLP)

Triethylene Glycol Monomethyl Ether (112-35-6)	
EC50 - Crustacea [1]	> 500 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
ErC50 algae	> 500 mg/l (72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value)

{Diisopropanolamine (110=97-4)} (110-97-4)	
LC50 - Fish [1]	1466 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	277.7 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)

12.2. Persistence and degradability

MAG1 DOT 3 & 4 BRAKE FLUID 12 FL. OZ.	
Persistence and degradability	Not established.

Triethyleneglycol Monoethyl Ether (112-50-5)	
Persistence and degradability	Readily biodegradable in water. Not established.

Butyl Triglycolether (143-22-6)	
Persistence and degradability	Readily biodegradable in water. Low potential for adsorption in soil. Photooxidation in the air. Not established.

Polyethylene Glycol (25322-68-3)	
Persistence and degradability	Readily biodegradable in water. Not established.

2-(2-Butoxyethoxy) Ethanol (112-34-5)	
Persistence and degradability	Readily biodegradable in water. Low potential for adsorption in soil. Photooxidation in the air. Not established.

Diethylene Glycol (111-46-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil. Photolysis in the air. Not established.
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

Diethyleneglycolmonoethyl Ether (111-90-0)	
Persistence and degradability	Readily biodegradable in water. Not established.
Biochemical oxygen demand (BOD)	0.2 g O_2/g substance
Chemical oxygen demand (COD)	1.85 g O_2/g substance
ThOD	1.9078849 g O_2/g substance
BOD (% of ThOD)	0.11 (Calculated value)

Triethyleneglycol (112-27-6)	
Persistence and degradability	Inherently biodegradable. Readily biodegradable in water. Photolysis in the air. Not established.
Biochemical oxygen demand (BOD)	0.03 g O_2/g substance
Chemical oxygen demand (COD)	1.57 g O_2/g substance
ThOD	1.6 g O_2/g substance

Methoxypolyethyleneglycols (9004-74-4)	
Persistence and degradability	Biodegradability in water: no data available. Not established.

Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-hydroxy- (9004-77-7)	
Persistence and degradability	Readily biodegradable in water. Not established.

Triethylene Glycol Monomethyl Ether (112-35-6)	
Persistence and degradability	Inherently biodegradable. Non degradable in the soil. Photodegradation in the air. Not established.

{Diisopropanolamine (110=97-4)} (110-97-4)	
Persistence and degradability	Not readily biodegradable in water. Not established.

12.3. Bioaccumulative potential

MAG1 DOT 3 & 4 BRAKE FLUID 12 FL. OZ.	
Bioaccumulative potential	Not established.

Triethyleneglycol Monoethyl Ether (112-50-5)	
Partition coefficient n-octanol/water (Log Pow)	0.51 (Weight of evidence approach, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Not bioaccumulative. Not established.

Butyl Triglycolether (143-22-6)	
Partition coefficient n-octanol/water (Log Pow)	0.51 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.

Polyethylene Glycol (25322-68-3)	
BCF - Fish [1]	3.2 (Other, Pisces, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	-0.96 – -0.7 (Weight of evidence approach, Other, 30 °C)
Bioaccumulative potential	Not bioaccumulative. Not established.

2-(2-Butoxyethoxy) Ethanol (112-34-5)	
Partition coefficient n-octanol/water (Log Pow)	1 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.

Diethylene Glycol (111-46-6)	
BCF - Fish [1]	100 l/kg (3 day(s), Leuciscus melanotus, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-1.98 (Calculated)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.

Diethyleneglycolmonoethyl Ether (111-90-0)	
Partition coefficient n-octanol/water (Log Pow)	-0.54 (Literature, 20 °C)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

Triethyleneglycol (112-27-6)	
Partition coefficient n-octanol/water (Log Pow)	-1.8 (QSAR, KOWWIN, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.

Methoxypolyethyleneglycols (9004-74-4)	
Bioaccumulative potential	No bioaccumulation data available. Not established.

Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-hydroxy- (9004-77-7)	
Partition coefficient n-octanol/water (Log Pow)	0.436 (Experimental value, EU Method A.8: Partition Coefficient, 25.5 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.

Triethylene Glycol Monomethyl Ether (112-35-6)	
Partition coefficient n-octanol/water (Log Pow)	-1.12 (Practical experience/observation, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

{Diisopropanolamine (110=97-4)} (110-97-4)	
Partition coefficient n-octanol/water (Log Pow)	-0.79 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 23 °C)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

12.4. Mobility in soil

Triethyleneglycol Monoethyl Ether (112-50-5)	
Surface tension	52 mN/m (25 °C, 9 g/l)
Ecology - soil	Low potential for adsorption in soil.

Butyl Triglycolether (143-22-6)	
Surface tension	61.2 mN/m (20 °C, 0.1 g/l)

Butyl Triglycolether (143-22-6)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.25 – 1 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

Polyethylene Glycol (25322-68-3)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1 (log Koc, Other, Calculated value)
Ecology - soil	Highly mobile in soil.

2-(2-Butoxyethoxy) Ethanol (112-34-5)	
Surface tension	67.5 mN/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.642 – 1 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

Diethylene Glycol (111-46-6)	
Surface tension	48.5 mN/m
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Highly mobile in soil.

Diethyleneglycolmonoethyl Ether (111-90-0)	
Surface tension	71.5 mN/m (20 °C, 0.1 %, OECD 115: Surface Tension of Aqueous Solutions)
Ecology - soil	Highly mobile in soil.

Triethyleneglycol (112-27-6)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1 (log Koc, SRC PCKOCWIN v1.66, Calculated value)
Ecology - soil	Highly mobile in soil.

Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-hydroxy- (9004-77-7)	
Surface tension	61.4 mN/m (20 °C)
Ecology - soil	Low potential for adsorption in soil.

Triethylene Glycol Monomethyl Ether (112-35-6)	
Surface tension	31.4 mN/m
Ecology - soil	No (test)data on mobility of the substance available.

{Diisopropanolamine (110=97-4)} (110-97-4)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.66 – 1.68 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

Ecological information : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Proper Shipping Name (DOT) : Not regulated

Other information : No supplementary information available.

Transport by sea

Proper Shipping Name (IMDG) : Not regulated

Air transport

Proper Shipping Name (IATA) : Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

MAG1 DOT 3 & 4 BRAKE FLUID 12 FL. OZ.	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard

Triethyleneglycol Monoethyl Ether (112-50-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

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

Diethyleneglycolmonoethyl Ether (111-90-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Triethylene Glycol Monomethyl Ether (112-35-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

{Diisopropanolamine (110=97-4)} (110-97-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

MAG1 DOT 3 & 4 BRAKE FLUID 12 FL. OZ.
Listed on the Canadian DSL (Domestic Substances List)

Triethyleneglycol Monoethyl Ether (112-50-5)
Listed on the Canadian DSL (Domestic Substances List)

Diethylene Glycol (111-46-6)
Listed on the Canadian DSL (Domestic Substances List)

Diethyleneglycolmonoethyl Ether (111-90-0)
Listed on the Canadian DSL (Domestic Substances List)

Triethylene Glycol Monomethyl Ether (112-35-6)
Listed on the Canadian DSL (Domestic Substances List)

{Diisopropanolamine (110=97-4)} (110-97-4)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Diethylene Glycol (111-46-6)

Diethyleneglycolmonoethyl Ether (111-90-0)

Triethylene Glycol Monomethyl Ether (112-35-6)

{Diisopropanolamine (110=97-4)} (110-97-4)

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

Not classified

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

15.2.2. National regulations

MAG1 DOT 3 & 4 BRAKE FLUID 12 FL. OZ.
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Diethylene Glycol (111-46-6)

Diethyleneglycolmonoethyl Ether (111-90-0)

Triethylene Glycol Monomethyl Ether (112-35-6)

{Diisopropanolamine (110=97-4)} (110-97-4)

15.3. US State regulations

MAG1 DOT 3 & 4 BRAKE FLUID 12 FL. OZ.()	
U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
State or local regulations	U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

Triethyleneglycol Monoethyl Ether (112-50-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Butyl Triglycolether (143-22-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Polyethylene Glycol (25322-68-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

2-(2-Butoxyethoxy) Ethanol (112-34-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Diethylene Glycol (111-46-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Diethyleneglycolmonoethyl Ether (111-90-0)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Triethyleneglycol (112-27-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Methoxypolyethyleneglycols (9004-74-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-hydroxy- (9004-77-7)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Triethylene Glycol Monomethyl Ether (112-35-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

{Diisopropanolamine (110=97-4)} (110-97-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Diethylene Glycol (111-46-6)
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List

Triethyleneglycol (112-27-6)
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

{Diisopropanolamine (110=97-4)} (110-97-4)
State or local regulations
U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Indication of changes : Revision - See : *.

Other information : None.

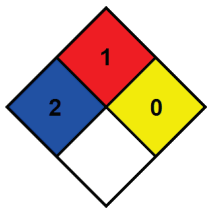
Full text of hazard classes and H-statements:

H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H373	May cause damage to organs through prolonged or repeated exposure

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 1 Slight Hazard

Physical : 0 Minimal Hazard

Personal protection : B

The Supplier identified in Section 1 of this SDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product

Disclaimer: The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.