

		Page: 1
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID 3104		Version: 1.2

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : Valvoline™ DOT 3
BRAKE FLUID

Recommended use of the chemical and restrictions on use

Details of the supplier of the safety data sheet Niteo Products, LLC P.O. Box 191629 Dallas TX 75219 United States of America	Emergency telephone number CHEMTREC DIRECT 1-800-424-9300 Product Information 1-844-696-4836
--	---

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Serious eye damage : Category 1

Specific target organ systemic toxicity - repeated exposure (Oral) : Category 2 (Kidney)

GHS Label element

Hazard pictograms :




Signal Word : Danger

Hazard Statements : Causes serious eye damage.
May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.

Precautionary Statements : **Prevention:**
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
Wear eye protection/ face protection.
Response:
IF IN EYES: Rinse cautiously with water for several minutes.

		Page: 2
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Get medical advice/ attention if you feel unwell.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Defatter

Hazardous components

Chemical Name	CAS-No.	Classification	Concentration (%)
TRIETHYLENE GLYCOL MONOBUTYL ETHER	143-22-6	Eye Dam. 1; H318	25.00
TETRAETHYLENE GLYCOL	112-60-7	Not a hazardous substance or mixture.	20.00
POLYOXYETHYLENE MONOBUTYL ETHER	9004-77-7	Eye Dam. 1; H318	20.00
DIETHYLENE GLYCOL	111-46-6	Acute Tox. 4; H302 STOT RE 2; H373	10.00
PENTAETHYLENE GLYCOL	4792-15-8	Not a hazardous substance or mixture.	10.00
TRISODIUM PHOSPHATE	7601-54-9	Skin Irrit. 2; H315 Eye Irrit. 2A; H319 STOT SE 3; H335	5.00

		Page: 3
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID 3104		Version: 1.2

DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	Eye Irrit. 2A; H319	5.00
DIISOPROPANOLAMINE	110-97-4	Eye Irrit. 2A; H319	3.00

SECTION 4. FIRST AID MEASURES

General advice	: Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.
If inhaled	: If breathed in, move person into fresh air. If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of skin contact	: Remove contaminated clothing. If irritation develops, get medical attention. If on skin, rinse well with water. Wash contaminated clothing before re-use.
In case of eye contact	: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye.
If swallowed	: Obtain medical attention. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.
Most important symptoms and effects, both acute and delayed	: Excessive levels of phosphorus can cause low blood calcium, with tetany and convulsions. Diglycol ethers may cause acidosis. Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways) Cough pain in the abdomen and lower back

		Page: 4
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID 3104		Version: 1.2

Blurred vision
 lung edema (fluid buildup in the lung tissue)
 acute kidney failure (sudden slowing or stopping of urine production)
 Difficulty in breathing
 Causes serious eye damage.
 May cause damage to organs through prolonged or repeated exposure if swallowed.

Notes to physician :

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
 Water spray
 Foam
 Carbon dioxide (CO2)
 Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release.
 Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : carbon dioxide and carbon monoxide
 various hydrocarbons
 Hydrocarbons
 Alcohols
 ethers
 Ketones
 Oxides of phosphorus
 Sodium oxides
 Aldehydes
 Organic acids
 Nitrogen oxides (NOx)
- Specific extinguishing methods :
- Product is compatible with standard fire-fighting agents.
- Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

		Page: 5
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

Special protective equipment : In the event of fire, wear self-contained breathing apparatus.
for firefighters

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.
- Other information : Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not breathe vapours/dust.
Do not smoke.
Container hazardous when empty.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
TETRAETHYLENE GLYCOL	112-60-7	TWA	10 mg/m3 Particulate.	WEEL
DIETHYLENE GLYCOL	111-46-6	TWA	10 mg/m3	WEEL

SAFETY DATA SHEET

Revision Date: 07/31/2016

Print Date: 1/30/2017

SDS Number: R0197992

Valvoline™ DOT 3 BRAKE FLUID

Version: 1.2

3104

PENTAETHYLENE GLYCOL	4792-15-8	TWA	10 mg/m3 Particulate.	WEEL
TRISODIUM PHOSPHATE	7601-54-9	STEL	5 mg/m3	WEEL
DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	TWA	10 ppm Inhalable fraction and vapor	ACGIH
DIISOPROPANOLAMINE	110-97-4	TWA	10 ppm	SUPLR EXP
		TWA	10 ppm	SUPLR EXP
		TWA	10 ppm	SUPLR EXP
		TWA	10 ppm	SUPLR EXP

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

Personal protective equipment

Hand protection

Remarks

: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection

: Wear chemical splash goggles and face shield when there is potential for exposure of the eyes or face to liquid, vapor or mist.
Maintain eye wash station in immediate work area.

Skin and body protection

: Wear as appropriate:
impervious clothing
Safety shoes
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures

: Wash hands before breaks and at the end of workday.
When using do not eat or drink.
When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

Colour : clear, yellow

Odour : mild

Odour Threshold : No data available

pH : +/- 1.8 9.3

Melting point/freezing point : -58 °F / -50 °C

		Page: 7
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

Boiling point/boiling range	: 401 °F / 205 °C (1013 hPa)
Flash point	: 275 °F / 135 °C Method: Tag closed cup
Evaporation rate	: < 0.01 n-Butyl Acetate
Flammability (solid, gas)	: No data available
Upper explosion limit	: 36 %(V) Calculated Explosive Limit
Lower explosion limit	: 0.9 %(V) Calculated Explosive Limit
Vapour pressure	: 169.3164 hPa (25 °C) Calculated Vapor Pressure
Relative vapour density	: 6AIR=1
Relative density	: 1.039 (20 °C)
Density	: Average 1.035 g/cm3 (4 °C)
Solubility(ies)	
Water solubility	: soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Oxidizing properties	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous	: Product will not undergo hazardous polymerization.

		Page: 8
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID 3104		Version: 1.2

reactions

Conditions to avoid : Avoid heat, open flame, and prolonged storage at elevated temperatures.
excessive heat
temperatures above 150 degrees F (66 °C)
Do not allow evaporation to dryness.
Exposure to moisture

Incompatible materials : Avoid contact with:
Acids
aluminum
Amines
Ammonia
Bases
Copper
galvanized metals
halogenated hydrocarbons
magnesium
nitrites
Organic materials
Reducing agents
strong alkalis
Strong oxidizing agents
Zinc
This product should not be used in conjunction with trimethylol propane or trimethylol propane-derived products. There is a possibility that bicyclic phosphates or phosphites can be produced as a result of the thermal decomposition of this product in combination with trimethylol propane, trimethylol propane-derived products or their corresponding trimethylol propane alkane homologs. Bicyclic phosphates and phosphites are a class of materials with acute neurotoxic properties which produce characteristic convulsive seizures in test animals.

Hazardous decomposition products
Alcohols
Aldehydes
carbon dioxide and carbon monoxide
ethers
Hydrocarbons
Nitrogen oxides (NOx)
Organic acids
Oxides of phosphorus
Sodium oxides
ketones

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : Inhalation

		Page: 9
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

exposure

Skin contact
Eye Contact
Ingestion

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity

:
Remarks: Ingestion of medications contaminated with diethylene glycol has caused kidney failure and death in humans. Products containing diethylene glycol should be considered toxic by ingestion.

Acute dermal toxicity

: Remarks: Skin absorption of this material (or a component) may be increased through injured skin.

Components:

TRIETHYLENE GLYCOL MONOBUTYL ETHER:

Acute oral toxicity : LD 50 (Rat): 5,300 mg/kg

Acute dermal toxicity : LD 50 (Rabbit): 3,502 mg/kg

TETRAETHYLENE GLYCOL:

Acute oral toxicity : LD 50 (Rat): ca. 30,000 mg/kg

Acute dermal toxicity : LD 50 (Rabbit): 22,460 mg/kg

POLYOXYETHYLENE MONOBUTYL ETHER:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit): 3,540 mg/kg

DIETHYLENE GLYCOL:

Acute oral toxicity : LD50 (Human): Expected 1,120 mg/kg
Target Organs: Kidney

Acute inhalation toxicity : LC50 (Rat): > 4.6 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD 50 (Rabbit): 13,300 mg/kg

TRISODIUM PHOSPHATE:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 420

Acute inhalation toxicity : LD 50 (Rat): > 0.83 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

		Page: 10
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

Assessment: Not classified as acutely toxic by inhalation under GHS.
 Remarks: Information given is based on data obtained from similar substances.

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
 Method: OECD Test Guideline 402
 Assessment: Not classified as acutely toxic by dermal absorption under GHS.
 Remarks: Information given is based on data obtained from similar substances.

DIETHYLENE GLYCOL MONOBUTYL ETHER:

Acute oral toxicity : LD 50 (Rat): 3,305 mg/kg

Acute dermal toxicity : LD 50 (Rabbit): 2,734 mg/kg

DIISOPROPANOLAMINE:

Acute oral toxicity : LD 50 (Rat): > 2,000 mg/kg
 Assessment: No adverse effect has been observed in acute oral toxicity tests.

Acute dermal toxicity : LD 50 (Rabbit): 8,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Result: Repeated exposure may cause skin dryness or cracking.

Components:

TRIETHYLENE GLYCOL MONOBUTYL ETHER:

Result: Not irritating to skin

TETRAETHYLENE GLYCOL:

Result: Not irritating to skin

POLYOXYETHYLENE MONOBUTYL ETHER:

Result: Slightly irritating to skin

DIETHYLENE GLYCOL:

Species: Human

Result: Slightly irritating to skin

PENTAETHYLENE GLYCOL:

Result: Slightly irritating to skin

TRISODIUM PHOSPHATE:

Result: Irritating to skin

DIETHYLENE GLYCOL MONOBUTYL ETHER:

Result: Slightly irritating to skin

		Page: 11
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

DIISOPROPANOLAMINE:

Result: Not irritating to skin

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks: May cause irreversible eye damage.

Components:

TRIETHYLENE GLYCOL MONOBUTYL ETHER:

Result: Corrosive to eyes

TETRAETHYLENE GLYCOL:

Result: Mildly irritating to eyes

POLYOXYETHYLENE MONOBUTYL ETHER:

Result: Corrosive to eyes

DIETHYLENE GLYCOL:

Species: Rabbit

Result: Slightly irritating to eyes

PENTAETHYLENE GLYCOL:

Result: Slightly irritating to eyes

TRISODIUM PHOSPHATE:

Result: Irritating to eyes

DIETHYLENE GLYCOL MONOBUTYL ETHER:

Result: Severely irritating to eyes

DIISOPROPANOLAMINE:

Result: Severely irritating to eyes

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Components:

POLYOXYETHYLENE MONOBUTYL ETHER:

Test Type: Maximisation Test (GPMT)

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Did not cause sensitisation on laboratory animals.

DIETHYLENE GLYCOL:

Test Type: Maximisation Test (GPMT)

Species: Guinea pig

Method: Directive 67/548/EEC, Annex V, B.6.

Result: Did not cause sensitisation on laboratory animals.

TRISODIUM PHOSPHATE:

Test Type: Local lymph node assay

Species: Mouse

		Page: 12
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

Assessment: Did not cause sensitisation on laboratory animals.

Method: OECD Test Guideline 429

DIETHYLENE GLYCOL MONOBUTYL ETHER:

Test Type: Maximisation Test (GPMT)

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Not classified based on available information.

Components:

DIETHYLENE GLYCOL:

Genotoxicity in vitro : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

: Test species: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 479
Result: negative
GLP: yes

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Test species: Mouse
Method: OECD Test Guideline 474
Result: negative
GLP: yes

PENTAETHYLENE GLYCOL:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Test species: Mouse
Cell type: Bone marrow
Result: negative

TRISODIUM PHOSPHATE:

Genotoxicity in vitro : Test Type: Ames test
Test species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
Remarks: Information given is based on data obtained from similar substances.

DIETHYLENE GLYCOL MONOBUTYL ETHER:

Genotoxicity in vitro : Remarks: In vitro tests did not show mutagenic effects

Genotoxicity in vivo : Result: In vivo tests did not show mutagenic effects

		Page: 13
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

Components:

DIETHYLENE GLYCOL MONOBUTYL ETHER:

Effects on fertility : Symptoms: No effects on fertility

STOT - single exposure

Not classified based on available information.

Components:

TRISODIUM PHOSPHATE:

Exposure routes: Inhalation

Target Organs: Respiratory Tract

Assessment: May cause respiratory irritation.

STOT - repeated exposure

May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.

Components:

DIETHYLENE GLYCOL:

Exposure routes: Ingestion

Target Organs: Kidney

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

Repeated dose toxicity

Components:

DIETHYLENE GLYCOL MONOBUTYL ETHER:

NOAEL: 250 mg/kg

LOAEL: 1,000 mg/kg

Application Route: Oral

Target Organs: Blood

Aspiration toxicity

Not classified based on available information.

Experience with human exposure

Components:

DIETHYLENE GLYCOL:

Liver

Further information

Product:

Remarks: No data available

Carcinogenicity:

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen

		Page: 14
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

by NTP.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

TETRAETHYLENE GLYCOL:

- Toxicity to fish : LC 50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : LC 50 (Water flea (Daphnia magna)): 7,746 mg/l
Exposure time: 48 h
- Toxicity to algae : IC50 (Pseudokirchneriella subcapitata (green algae)): > 1,000 mg/l

POLYOXYETHYLENE MONOBUTYL ETHER:

- Toxicity to fish : LC50 (Flatfish, flounder (Scophthalmus maximus)): > 1,800 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203
- Toxicity to algae : ErC50 (Skeletonema costatum (marine diatom)): 391 mg/l
Exposure time: 72 h

DIETHYLENE GLYCOL:

- Toxicity to fish : LC 50 (Fathead minnow (Pimephales promelas)): 75,210 mg/l
Exposure time: 96 h
Test Type: flow-through test
- Toxicity to daphnia and other aquatic invertebrates : LC 50 (Water flea (Daphnia magna)): > 10,000 mg/l
Exposure time: 24 h
Test Type: static test
Method: DIN 38412

TRISODIUM PHOSPHATE:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203
Remarks: Information given is based on data obtained from similar substances.
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Water flea (Daphnia magna)): > 100 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
Remarks: Information given is based on data obtained from similar substances.

		Page: 15
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
Remarks: Information given is based on data obtained from similar substances.

NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
Remarks: Information given is based on data obtained from similar substances.

DIETHYLENE GLYCOL MONOBUTYL ETHER:

Toxicity to fish : LC 50 (Bluegill (Lepomis macrochirus)): 1,300 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : LC 50 (Water flea (Daphnia magna)): 2,850 mg/l
Exposure time: 24 h
Method: Static
Remarks: Mortality

EC 50 (Water flea (Daphnia magna)): > 100 mg/l
Exposure time: 48 h
Test Type: static test

Toxicity to algae : (Desmodesmus subspicatus (green algae)): > 100 mg/l
End point: EC 50
Exposure time: 96 h
Test Type: static test

Toxicity to bacteria : EC 50 (Bacteria): > 100 mg/l
Exposure time: 96 h
Test Type: Static

DIISOPROPANOLAMINE:

Toxicity to fish : LC 50 (Carassius auratus (goldfish)): 1,100 mg/l
Exposure time: 24 h
Test Type: static test

Persistence and degradability

TETRAETHYLENE GLYCOL:

Biodegradability : Biodegradation: 40 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

DIETHYLENE GLYCOL:

		Page: 16
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

Biodegradability : Result: Readily biodegradable
Biodegradation: 70 - 80 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

TRISODIUM PHOSPHATE:

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

DIETHYLENE GLYCOL MONOBUTYL ETHER:

Biodegradability : Biodegradation: 89 %
Exposure time: 28 d
Method: OECD Test Guideline 301C
Remarks: Readily biodegradable

Bioaccumulative potential

TETRAETHYLENE GLYCOL:

Partition coefficient: n-octanol/water : log Pow: Estimated -2.30

DIETHYLENE GLYCOL:

Bioaccumulation : Species: Leuciscus idus (Golden orfe)
Bioconcentration factor (BCF): 100

Partition coefficient: n-octanol/water : log Pow: -1.47

PENTAETHYLENE GLYCOL:

Partition coefficient: n-octanol/water : log Pow: -2.3

DIETHYLENE GLYCOL MONOBUTYL ETHER:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 1

DIISOPROPANOLAMINE:

Partition coefficient: n-octanol/water : log Pow: -0.82

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Additional ecological information : No data available

		Page: 17
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

General advice : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.

U.S. DOT - ROAD

Not dangerous goods

CFR_RAIL_C

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

TDG_ROAD_C

Not dangerous goods

TDG_RAIL_C

Not dangerous goods

TDG_INWT_C

Not dangerous goods

		Page: 18
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

MX_DG

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant	no
------------------	----

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

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
TRISODIUM PHOSPHATE	7601-54-9	5000	100000

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard

SARA 313 Component(s)

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

		Page: 19
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

Pennsylvania Right To Know

POLYETHYLENE GLYCOL MONOMETHYL ETHER	9004-74-4	50.00 - 70.00 %
TRIETHYLENE GLYCOL MONOETHYL ETHER	112-50-5	30.00 - 50.00 %
TRIETHYLENE GLYCOL MONOMETHYL ETHER	112-35-6	30.00 - 50.00 %
TRIETHYLENE GLYCOL MONOBUTYL ETHER	143-22-6	20.00 - 30.00 %
TETRAETHYLENE GLYCOL	112-60-7	20.00 - 30.00 %
POLYOXYETHYLENE MONOBUTYL ETHER	9004-77-7	20.00 - 30.00 %
DIETHYLENE GLYCOL	111-46-6	10.00 - 20.00 %
PENTAETHYLENE GLYCOL	4792-15-8	10.00 - 20.00 %
POLYETHYLENE GLYCOL	25322-68-3	5.00 - 10.00 %
TRISODIUM PHOSPHATE	7601-54-9	5.00 - 10.00 %
DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	5.00 - 10.00 %
DIISOPROPANOLAMINE	110-97-4	1.00 - 5.00 %

New Jersey Right To Know

POLYETHYLENE GLYCOL MONOMETHYL ETHER	9004-74-4	50.00 - 70.00 %
TRIETHYLENE GLYCOL MONOETHYL ETHER	112-50-5	30.00 - 50.00 %
TRIETHYLENE GLYCOL MONOMETHYL ETHER	112-35-6	30.00 - 50.00 %
TRIETHYLENE GLYCOL MONOBUTYL ETHER	143-22-6	20.00 - 30.00 %
TETRAETHYLENE GLYCOL	112-60-7	20.00 - 30.00 %
POLYOXYETHYLENE MONOBUTYL ETHER	9004-77-7	20.00 - 30.00 %
TRISODIUM PHOSPHATE	7601-54-9	5.00 - 10.00 %
DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	5.00 - 10.00 %

		Page: 20
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID 3104		Version: 1.2

California Prop 65

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

The components of this product are reported in the following inventories:

ENCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
AICS	: On the inventory, or in compliance with the inventory
TSCA	: On TSCA Inventory
KECI	: Not in compliance with the inventory
PICCS	: Not in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL.

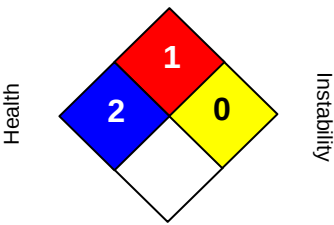
Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

Revision Date: 07/31/2016

NFPA:	HMIS III:						
Flammability  Health Instability Special hazard.	<table border="1"> <tr> <td>HEALTH</td><td>2*</td></tr> <tr> <td>FLAMMABILITY</td><td>1</td></tr> <tr> <td>PHYSICAL HAZARD</td><td>0</td></tr> </table> 0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic	HEALTH	2*	FLAMMABILITY	1	PHYSICAL HAZARD	0
HEALTH	2*						
FLAMMABILITY	1						
PHYSICAL HAZARD	0						

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

		Page: 21
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H303	May be harmful if swallowed.
H313	May be harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure if swallowed.

Sources of key data used to compile the Safety Data Sheet

Internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

Cefic, the European Chemical Industry Council.

ESIS European Chemical Substances Information System

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Niteo's Environmental Health and Safety Department (1-844-696-4836).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

BEI : Biological Exposure Index

CAS : Chemical Abstracts Service (Division of the American Chemical Society).

CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

LCxx : Lethal Concentration, for xx percent of test population

LDxx : Lethal Dose, for xx percent of test population.

ICxx : Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx

N.O.S.: Not Otherwise Specified

OECD : Organization for Economic Co-operation and Development

OEL : Occupational Exposure Limit

P-Statement : Precautionary Statement

PBT : Persistent , Bioaccumulative and Toxic

PPE : Personal Protective Equipment

		Page: 22
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 1/30/2017
		SDS Number: R0197992
Valvoline™ DOT 3 BRAKE FLUID		Version: 1.2
3104		

STEL : Short-term exposure limit
 STOT : Specific Target Organ Toxicity
 TLV : Threshold Limit Value
 TWA : Time-weighted average
 vPvB : Very Persistent and Very Bioaccumulative
 WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
 DOT : Department of Transportation
 FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
 HMIRC : Hazardous Materials Information Review Commission
 HMIS : Hazardous Materials Identification System
 NFPA : National Fire Protection Association
 NIOSH : National Institute for Occupational Safety and Health
 OSHA : Occupational Safety and Health Administration
 PMRA : Health Canada Pest Management Regulatory Agency
 RTK : Right to Know
WHMIS : Workplace Hazardous Materials Information System