	
SAFETY DATA SHEET	Revision Date: 20.10.2016
	Print Date: 01.05.2017
	SDS Number: 000000242316
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841594	

Conforms to EU Regulation 1907/2006/EC as amended. - SDSGHS_GB

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

1.1 Product identifier

Trade name : Valvoline™ BRAKEFLUID DOT 4
BRAKE FLUID

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

1.3 Details of the supplier of the safety data sheet Ellis Enterprises B.V., an affiliate of Valvoline Wieldrechtseweg 39 3316 BG Dordrecht Netherlands +31 (0)78 654 3500 (in the Netherlands), or contact your local CSR contact person SDS@valvoline.com	1.4 Emergency telephone number 00-800-825-8654 / 001-859-202-3865, or contact your local emergency telephone number at 112 Product Information +31 (0)78 654 3500 (in the Netherlands), or contact your local CSR contact person
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4

H302: Harmful if swallowed.

Eye irritation, Category 2

H319: Causes serious eye irritation.

Specific target organ toxicity - repeated
exposure, Category 2, Kidney

H373: May cause damage to organs through
prolonged or repeated exposure if swallowed.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word :

Warning


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Hazard statements	: H302 H319 H373	Harmful if swallowed. Causes serious eye irritation. May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.
Precautionary statements	: P101 P102 Prevention: P260 P264 P270 Disposal: P501	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

2,2' -Oxybisethanol

2.3 Other hazards
Additional advice

No information available.

SECTION 3: Composition/information on ingredients
3.2 Mixtures
Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
Ethanol, 2-butoxy-, manufacture of, by- products from	161907-77-3 310-287-7	Eye Dam.1; H318	>= 25,00 - < 30,00
2,2' -Oxybisethanol	111-46-6 203-872-2 01-2119457857-21-xxxx	Acute Tox.4; H302 STOT RE2; H373	>= 25,00 - < 40,00
Boric acid	10043-35-3 233-139-2	Repr.1B; H360	>= 3,00 - < 5,00
1,1'-Iminodipropan-2-ol	110-97-4 203-820-9 01-2119475444-34-xxxx	Eye Irrit.2; H319	>= 2,50 - < 3,00


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2-(2-Methoxyethoxy)ethanol	111-77-3 203-906-6	Repr.2; H361d	>= 2,50 - < 3,00
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For explanation of abbreviations see section 16.

SECTION 4: First aid measures
4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Call a POISON CENTRE or doctor/physician if exposed or you feel unwell.
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 : If on skin, rinse well with water.
First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
- If swallowed : Obtain medical attention.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : 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)
Nose bleeding
pain in the abdomen and lower back
lung edema (fluid buildup in the lung tissue)
acute kidney failure (sudden slowing or stopping of urine production)


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Risks :

- Harmful if swallowed.
- Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment :

SECTION 5: Firefighting measures
5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

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

- Hydrocarbons
- boric oxide
- toxic fumes
- Nitrogen oxides (NO_x)

5.3 Advice for firefighters

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

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.


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Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures
6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Remove all sources of ignition.
 Ensure adequate ventilation.
 Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
 Comply with all applicable federal, state, and local regulations.
 Suppress (knock down) gases/vapours/mists with a water spray jet.

6.2 Environmental precautions

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.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
 Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For further information see Section 8 and Section 13 of the safety data sheet.

SECTION 7: Handling and storage
7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.
 Provide sufficient air exchange and/or exhaust in work rooms.
 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.


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Advice on protection against fire and explosion : No sparking tools should be used. Keep away from open flames, hot surfaces and sources of ignition.

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

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. No smoking.

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection
8.1 Control parameters
Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2,2'-Oxybisethanol	111-46-6	TWA	23 ppm 101 mg/m ³	GB EH40
2-(2-Methoxyethoxy)ethanol	111-77-3	TWA	10 ppm 50,1 mg/m ³	2006/15/EC
		TWA	10 ppm 50,1 mg/m ³	GB EH40

8.2 Exposure controls
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

Eye protection : Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Hand protection

Remarks : butyl-rubber Nitrile rubber


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

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.

SECTION 9: Physical and chemical properties
9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : colourless, amber

Odour : No data available

Odour Threshold : No data available

pH : ca. 8,8

Melting point/freezing point : < -50 °C

Boiling point/boiling range : > 205 °C
(101,3 hPa)

Flash point : > 90 °C

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : < 2 hPa

Relative vapour density : No data available

Relative density : No data available

Density : ca. 1,04 g/cm³ (20 °C)

Solubility(ies)
 Water solubility : completely miscible


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Solubility in other solvents : No data available

Partition coefficient: n-
octanol/water : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Oxidizing properties : No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity
10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

excessive heat
Do not allow evaporation to dryness.
Exposure to air.
Exposure to moisture

10.5 Incompatible materials

Materials to avoid : Acids
aluminum
Bases
carbonates
Copper
galvanized metals
halogenated hydrocarbons
hydroxides
nitrites


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Potassium
Strong oxidizing agents
Zinc

10.6 Hazardous decomposition products

Hazardous decomposition products : Alcohols
Aldehydes
carbon dioxide and carbon monoxide
ethers
Hydrocarbons
Nitrogen oxides (NO_x)
Organic acids
ketones

SECTION 11: Toxicological information
11.1 Information on toxicological effects

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity

Harmful if swallowed.

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 toxicity estimate : 500 mg/kg
Method: Expert judgement
Remarks: Expected based on components.

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

Components:

Ethanol, 2-butoxy-, manufacture of, by-products from

Acute oral toxicity : **LD50 (Rat): 2.630 mg/kg**
Remarks: Information given is based on data obtained from similar substances.

Acute dermal toxicity : **LD50 (Rabbit): 3.540 mg/kg**
Remarks: Information given is based on data obtained from similar substances.


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Components:

2,2'-Oxybisethanol

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 : **LD50 (Rabbit): 13.300 mg/kg**

Components:

Boric acid

Acute oral toxicity : **LD50 (Rat): > 2.660 mg/kg**
Remarks: **No mortality observed at this dose.**

Acute inhalation toxicity : **LC50 (Rat): > 2,0 mg/l**
Exposure time: **4 h**
Method: **OECD Test Guideline 403**
Remarks: **Aerosol**

Acute dermal toxicity : **LD50 (Rabbit): > 2.000 mg/kg**

Components:

1,1'-Iminodipropan-2-ol

Acute oral toxicity : **LD50 (Rat): > 2.000 mg/kg**
Assessment: **No adverse effect has been observed in acute oral toxicity tests.**

Acute dermal toxicity : **LD50 (Rabbit): 8.000 mg/kg**

Components:

2-(2-Methoxyethoxy)ethanol

Acute oral toxicity : **LD50 (Mouse): > 5.288 mg/kg**
Method: **OECD Test Guideline 401**
GLP: **no**

Acute inhalation toxicity : **LC0 (Rat): > 1,2 mg/l**
Exposure time: **6 h**
Test atmosphere: **vapour**
Method: **OECD Test Guideline 403**

Acute dermal toxicity : **LD50 (Rabbit): 9.404 mg/kg**
Method: **OECD Test Guideline 402**

Skin corrosion/irritation

Not classified based on available information.

Product:


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Remarks: May cause skin irritation in susceptible persons.

Components:

Ethanol, 2-butoxy-, manufacture of, by-products from

Result: **Slight, transient irritation**

Remarks: **Information given is based on data obtained from similar substances.**

2,2' -Oxybisethanol

Species: **Human**

Result: **Slight, transient irritation**

Boric acid

Result: **Slight, transient irritation**

1,1'-Iminodipropan-2-ol

Result: **No skin irritation**

2-(2-Methoxyethoxy)ethanol

Species: **Rabbit**

Method: **OECD Test Guideline 404**

Result: **No skin irritation**

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

Components:

Ethanol, 2-butoxy-, manufacture of, by-products from

Result: **Corrosive**

2,2' -Oxybisethanol

Species: **Rabbit**

Result: **Slight, transient irritation**

Boric acid

Result: **Slight, transient irritation**

1,1'-Iminodipropan-2-ol

Result: **Severely irritating to eyes**

2-(2-Methoxyethoxy)ethanol

Species: **Rabbit**

Method: **OECD Test Guideline 405**

Result: **Slight, transient irritation**

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.


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Components:

2,2' -Oxybisethanol

Test Type: **Maximisation Test**Species: **Guinea pig**Method: **Directive 67/548/EEC, Annex V, B.6.**

2-(2-Methoxyethoxy)ethanol

Test Type: **Maximisation Test**Species: **Guinea pig**Assessment: **Does not cause skin sensitisation.**Method: **OECD Test Guideline 406**
Germ cell mutagenicity

Not classified based on available information.

Components:

2,2' -Oxybisethanol

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**

2-(2-Methoxyethoxy)ethanol

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**
Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

Components:

Boric acid

Reproductive toxicity -

Assessment

: **Clear evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments**


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2-(2-Methoxyethoxy)ethanol

Reproductive toxicity - Assessment : **Some evidence of adverse effects on development, based on animal experiments.**

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Components:

2,2' -Oxybisethanol

Exposure routes: **Ingestion**Target Organs: **Kidney**Assessment: **May cause damage to organs through prolonged or repeated exposure.**

Boric acid

Target Organs: **Testes**
Aspiration toxicity

Not classified based on available information.

Experience with human exposure
Components:

2,2' -Oxybisethanol

General Information: **Liver**
Further information
Product:

Remarks: No data available

SECTION 12: Ecological information
12.1 Toxicity
Components:

Ethanol, 2-butoxy-, manufacture of, by-products from

Toxicity to fish : **LC50 (Fish): > 1.800 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 (Daphnia magna (Water flea)): > 3.200 mg/l**
 Exposure time: **48 h**
 Test Type: **static test**
 Method: **OECD Test Guideline 202**
 GLP: **yes**


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Toxicity to algae : **ErC50 (Scenedesmus capricornutum (fresh water algae)):**
2.490 mg/l
 Exposure time: **72 h**
 Test Type: **static test**
 Method: **OECD Test Guideline 201**
 GLP: **yes**

2,2'-Oxybisethanol

Toxicity to fish : **LC50 (Fathead minnow (Pimephales promelas)):** **75.210 mg/l**
 Exposure time: **96 h**
 Test Type: **flow-through test**

Toxicity to daphnia and other aquatic invertebrates : **LC50 (Water flea (Daphnia magna)):** **> 10.000 mg/l**
 Exposure time: **24 h**
 Test Type: **static test**
 Method: **DIN 38412**

1,1'-Iminodipropan-2-ol

Toxicity to fish : **LC50 (Carassius auratus (goldfish)):** **1.100 mg/l**
 Exposure time: **24 h**
 Test Type: **static test**

2-(2-Methoxyethoxy)ethanol

Toxicity to fish : **LC50 (Pimephales promelas (fathead minnow)):** **5.741 mg/l**
 Exposure time: **96 h**
 Test Type: **static test**

LC50 (Bluegill (Lepomis macrochirus)): **7.500 mg/l**
 Exposure time: **96 h**
 Method: **Static**
 Remarks: **Mortality**

Toxicity to daphnia and other aquatic invertebrates : **EC50 (Daphnia magna (Water flea)):** **1.192 mg/l**
 Exposure time: **48 h**
 Test Type: **static test**

Toxicity to algae : **EC50 (Pseudokirchneriella subcapitata (green algae)):** **> 1.000 mg/l**
 End point: **Biomass**
 Exposure time: **96 h**
 Test Type: **static test**
 Method: **OECD Test Guideline 201**

12.2 Persistence and degradability
Components:

Ethanol, 2-butoxy-, manufacture of, by-products from

Biodegradability : Result: **Readily biodegradable.**
 Biodegradation: **76 %**
 Exposure time: **28 d**

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2,2' -Oxybisethanol

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

2-(2-Methoxyethoxy)ethanol

Biodegradability : Test Type: **aerobic**
Inoculum: **activated sludge**
Result: **Readily biodegradable.**
Biodegradation: **100 %**
Exposure time: **28 d**

12.3 Bioaccumulative potential**Components:**

Ethanol, 2-butoxy-, manufacture of, by-products from

Partition coefficient: n-octanol/water : log Pow: **0,436 (25,5 °C)**
pH: **6,6**

2,2' -Oxybisethanol

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

Partition coefficient: n-octanol/water : log Pow: **-1,47**

1,1'-Iminodipropan-2-ol

Partition coefficient: n-octanol/water : log Pow: **-0,82**

12.4 Mobility in soil

No data available


12.5 Results of PBT and vPvB assessment

Not relevant

12.6 Other adverse effects**Product:**

Additional ecological information : No data available

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

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- Product : 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.
- 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.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

SECTION 14: Transport information

14.1 UN number

ADR: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not dangerous goods
INTERNATIONAL MARITIME DANGEROUS GOODS: Not dangerous goods
 RID: Not dangerous goods

14.2 UN proper shipping name

ADR: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not dangerous goods
INTERNATIONAL MARITIME DANGEROUS GOODS: Not dangerous goods
 RID: Not dangerous goods


14.3 Transport hazard class(es)

ADR: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not dangerous goods
INTERNATIONAL MARITIME DANGEROUS GOODS: Not dangerous goods
 RID: Not dangerous goods

14.4 Packing group

ADR: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not dangerous goods
INTERNATIONAL MARITIME DANGEROUS GOODS: Not dangerous goods
 RID: Not dangerous goods

14.5 Environmental hazards

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ADR: Not applicable

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not applicable

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not applicable

INTERNATIONAL MARITIME DANGEROUS GOODS: Not applicable

RID: Not applicable

: Not applicable

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Ship Type: Not applicable

Hazard code(s): Not applicable

Pollutant Category: Not applicable

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

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Boric acid
2-(2-Methoxyethoxy)ethanol

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Boric acid

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Not applicable


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Other regulations : Young people under 18 years old are not allowed to work with this product according to the EU Directive 94/33/EC on the protection of young people at work.

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

TSCA : On TSCA Inventory

DSL All components of this product are on the Canadian DSL

AICS On the inventory, or in compliance with the inventory

ENCS

KECI Not in compliance with the inventory

ISHL Not in compliance with the inventory

PICCS On the inventory, or in compliance with the inventory

IECSC On the inventory, or in compliance with the inventory

Inventories

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

15.2 Chemical safety assessment

No data available

SECTION 16: Other information
Further information

Revision Date: 20.10.2016

Classification procedure:

H302	Harmful if swallowed.	Expert judgement and weight of evidence determination.
H319	Causes serious eye irritation.	Calculation method
H373	May cause damage to organs through prolonged or repeated exposure if swallowed.	Calculation method

Full text of H-Statements

H302	Harmful if swallowed.
H318	Causes serious eye damage.


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H319	Causes serious eye irritation.
H360	May damage fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure if swallowed.

Other information : The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Valvoline's Environmental Health and Safety Department (+31 (0)78 654 3500).

Sources of key data used to compile the Safety Data Sheet
 Valvoline internal data including own and sponsored test reports
 The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

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

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PPE : Personal Protective Equipment
 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

ABM : Water Hazard Class for the Netherlands
 ADR : Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADNR: Regulation for the Carriage of Dangerous Substances on the Rhine
 CLP : Classification, Labelling and Packaging
 CSA : Chemical Safety Assessment
 CSR : Chemical Safety Report
 DNEL : Derived No Effect Level.
 EINECS : European Inventory of Existing Commercial Chemical Substances.
 ELINCS : European List of Notified Chemical Substances
 PEC : Predicted Effect Concentration
 PEL : Permissible Exposure Limits
 PNEC : Predicted No Effect Concentration
 R-phrase : Risk phrase
 REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
 RID : Regulation Concerning the International Transport of Dangerous Goods by Rail
 S-phrase: Safety phrase
 WGK : German Water Hazard Class