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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 : Tectyl® MULTIPURPOSE WATERBASED
RUST PREVENTATIVE

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

Recommended use : Corrosion inhibitor

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)

Aerosols, Category 1

H222: Extremely flammable aerosol.

H229: Pressurised container: May burst if heated.

Skin irritation, Category 2

H315: Causes skin irritation.

Eye irritation, Category 2

H319: Causes serious eye irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)



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Hazard pictograms



Signal word

: Danger

Hazard statements

: H222 Extremely flammable aerosol.
 H229 Pressurised container: May burst if heated.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.

Precautionary statements

: P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
Prevention:
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Do not pierce or burn, even after use.
Storage:
 P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Additional Labelling:

EUH208 Contains Cobalt bis(2-ethylhexanoate). May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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 (%)
2-butoxyethanol	111-76-2 203-905-0 01-2119475108-36-xxxx	Acute Tox.4; H302 Acute Tox.4; H332 Acute Tox.3; H311	>= 10,00 - < 15,00

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		Skin Irrit.2; H315 Eye Irrit.2; H319	
Butan-2-ol	78-92-2 201-158-5	Flam. Liq.3; H226 Eye Irrit.2; H319 STOT SE3; H336 STOT SE3; H335	>= 1,00 - < 2,50
1-Butoxypropan-2-ol	5131-66-8 225-878-4	Flam. Liq.3; H226 Skin Irrit.2; H315 Eye Irrit.2; H319	>= 1,00 - < 2,50
Ammonia, aqueous solution	1336-21-6 215-647-6	Acute Tox.4; H302 Skin Corr.1B; H314 STOT SE3; H335 Aquatic Acute1; H400 Aquatic Chronic2; H411	>= 0,10 - < 0,25
Cobalt bis(2-ethylhexanoate)	136-52-7 205-250-6	Eye Irrit.2; H319 Skin Sens.1A; H317 Repr.1B; H360F	>= 0,00 - < 0,10
Substances with a workplace exposure limit :			
dimethyl ether	115-10-6 204-065-8 01-2119472128-37-0005	Flam. Gas1; H220 Press. GasLiquefied gas; H280	>= 50,00 - < 60,00

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.
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 : Immediately flush eye(s) with plenty of water.
Remove contact lenses.

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Protect unharmed eye.

If swallowed : 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 : No symptoms known or expected.

Risks : Causes skin irritation.
Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No hazards which require special first aid measures.

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
Alcohol-resistant 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 : Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : carbon dioxide and carbon monoxide
Hydrocarbons
Aldehydes
Ketones
Organic acids

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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 : 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 : Evacuate personnel to safe areas.
Remove all sources of ignition.
Use personal protective equipment.
Ensure adequate ventilation.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
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.

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


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 : Open drum carefully as content may be under pressure.
Provide sufficient air exchange and/or exhaust in work rooms.
Do not breathe vapours/dust.
Do not smoke.
Container hazardous when empty.
Take precautionary measures against static discharges.
Avoid contact with skin and eyes.

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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.

Advice on protection against fire and explosion : Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition. Use only explosion-proof equipment.

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 : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects. 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
dimethyl ether	115-10-6	TWA	1.000 ppm 1.920 mg/m ³	2000/39/EC
		TWA	400 ppm 766 mg/m ³	GB EH40
		STEL	500 ppm 958 mg/m ³	GB EH40
2-butoxyethanol	111-76-2	TWA	20 ppm 98 mg/m ³	2000/39/EC
		STEL	50 ppm 246 mg/m ³	2000/39/EC
		TWA	25 ppm	GB EH40

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		STEL	50 ppm	GB EH40
Butan-2-ol	78-92-2	TWA	100 ppm 308 mg/m3	GB EH40
		STEL	150 ppm 462 mg/m3	GB EH40
Cobalt bis(2-ethylhexanoate)	136-52-7	TWA	0,1 mg/m3 (Cobalt)	GB EH40

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	butoxyacetic acid: 240 Millimoles per mole Creatinine (Urine)	After shift	GB EH40 BAT

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

dimethyl ether	: End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 1894 mg/m3 End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 471 mg/m3
----------------	---

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:


dimethyl ether	: Fresh water Value: 0,155 mg/l Marine water Value: 0,016 mg/l Sewage treatment plant Value: 160 mg/l Fresh water sediment Value: 0,681 mg/kg Marine sediment Value: 0,069 mg/kg Soil Value: 0,045 mg/kg
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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

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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

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
Flame-resistant clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Discard gloves that show tears, pinholes, or signs of wear.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : aerosol

Colour : transparent

Odour : No data available

Odour Threshold : No data available

pH : Not applicable

Melting point/freezing point : No data available

Boiling point/boiling range : No data available

Flash point : < 0 °C

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

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Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : ca. 0,835 g/cm³ (20 °C)

Solubility(ies)

Water solubility : partly soluble

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

Self-ignition : 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.

Do not allow evaporation to dryness.
Exposure to air or moisture over prolonged periods.

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10.5 Incompatible materials

Materials to avoid : Acids
aluminium hydride
Amines
Ammonia
Bases
Carbon monoxide
chlorates
Chlorine
halogens
lithium aluminum hydride
peroxides
salts of strong bases
strong alkalis
Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate : > 2.000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 2.000 mg/kg
Method: Calculation method

Components:

ETHYLENE GLYCOL MONOBUTYL ETHER:

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Acute oral toxicity : LD50 (Guinea pig): 1.200 mg/kg

Acute inhalation toxicity : LC50 (Rat): 2,17 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The component/mixture is classified as acute inhalation toxicity, category 4.

Acute dermal toxicity : LD50 (Rabbit): 400 - 500 mg/kg

Components:
BUTYL ALCOHOL SECONDARY:

Acute oral toxicity : LD50 (Rat): 2.193 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2 g/kg
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

Acute toxicity (other routes of administration) : LD50 (Guinea pig): 1,1 g/kg
Application Route: Intraperitoneal

LD50 (Hamster): 1,2 g/kg
Application Route: Intraperitoneal

LD50 (Rat): 1,2 g/kg
Application Route: Intraperitoneal

LD50 (Mouse): 0,76 g/kg
Application Route: Intraperitoneal


LD50 (Rabbit): 0,28 g/kg
Application Route: Intraperitoneal

Components:
PROPYLENE GLYCOL MONOBUTYL ETHER:

Acute oral toxicity : LD50 (Rat): 2.500 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 651 ppm
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: No adverse effect has been observed in acute

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dermal toxicity tests.

Components:

AMMONIUM HYDROXIDE ((NH₄)(OH)):

Acute oral toxicity : LD₅₀ (Rat): 350 mg/kg

Components:

COBALT 2-ETHYLHEXANOATE:

Acute oral toxicity : LD₅₀ (Rat, female): ca. 3.129 mg/kg

Acute inhalation toxicity : LC₅₀ (Rat): > 10 mg/l
 Exposure time: 1 h
 Test atmosphere: dust/mist
 Assessment: Not classified as acutely toxic by inhalation under GHS.

Acute dermal toxicity : LD₅₀ (Rabbit): > 5.000 mg/kg

Components:

DIMETHYL ETHER:

Acute inhalation toxicity : LC₅₀ (Mouse): 494,36 mg/l
 Exposure time: 15 min
 Test atmosphere: gas

LC₅₀ (Mouse): 385,94 mg/l
 Exposure time: 30 min
 Test atmosphere: gas

LC₅₀ (Rat): 164000 ppm
 Exposure time: 4 h
 Test atmosphere: gas

Skin corrosion/irritation

Causes skin irritation.

Product:

Result: Repeated exposure may cause skin dryness or cracking.


Remarks: May cause skin irritation and/or dermatitis.

Components:

ETHYLENE GLYCOL MONOBUTYL ETHER:

Species: Rabbit
 Result: Irritating to skin.

BUTYL ALCOHOL SECONDARY:

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Result: Slight, transient irritation

PROPYLENE GLYCOL MONOBUTYL ETHER:

Result: Irritating to skin.

AMMONIUM HYDROXIDE ((NH₄)(OH)):

Result: Corrosive to skin

COBALT 2-ETHYLHEXANOATE:

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:

ETHYLENE GLYCOL MONOBUTYL ETHER:

Species: Rabbit

Result: Irritating to eyes.

BUTYL ALCOHOL SECONDARY:

Result: Irritating to eyes.

PROPYLENE GLYCOL MONOBUTYL ETHER:

Result: Irritating to eyes.

AMMONIUM HYDROXIDE ((NH₄)(OH)):

Result: Corrosive

COBALT 2-ETHYLHEXANOATE:

Species: Rabbit

Method: OECD Test Guideline 405

Result: Irritating to eyes.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Components:

ETHYLENE GLYCOL MONOBUTYL ETHER:

Test Type: Maximisation Test

Species: Guinea pig

Assessment: Does not cause skin sensitisation.

Method: OECD Test Guideline 406

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PROPYLENE GLYCOL MONOBUTYL ETHER:

Species: Guinea pig

Assessment: Did not cause sensitisation on laboratory animals.

Method: OECD Test Guideline 406

COBALT 2-ETHYLHEXANOATE:

Test Type: Local lymph node assay

Species: Mouse

Assessment: The product is a skin sensitiser, sub-category 1A.

Method: OECD Test Guideline 429

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

DIMETHYL ETHER:

Remarks: Not applicable

Germ cell mutagenicity

Not classified based on available information.

Components:
ETHYLENE GLYCOL MONOBUTYL ETHER:

Genotoxicity in vitro

: Test Type: Ames test

Test species: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

PROPYLENE GLYCOL MONOBUTYL ETHER:

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

COBALT 2-ETHYLHEXANOATE:

Genotoxicity in vitro

: Test Type: Ames test

Result: negative

Genotoxicity in vivo

: Test Type: In vivo micronucleus test

Result: negative

DIMETHYL ETHER:

Genotoxicity in vitro

: Test Type: Ames test


Result: negative

: Test Type: Chromosome aberration test in vitro

Result: negative

: Test Type: In vitro mammalian cell gene mutation test

Result: negative

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	: Test Type: unscheduled DNA synthesis assay Result: negative
Genotoxicity in vivo	: Test species: Drosophila melanogaster (vinegar fly) Result: negative

Carcinogenicity

Not classified based on available information.

Components:

DIMETHYL ETHER:

Species: **Rat**
Application Route: **inhalation (vapour)**
NOAEL: **No observed adverse effect level: 47,106 mg/l**
Result: **negative**

Reproductive toxicity

Not classified based on available information.

Components:

COBALT 2-ETHYLHEXANOATE:

Reproductive toxicity - Assessment	: Clear evidence of adverse effects on sexual function and fertility, based on animal experiments.
------------------------------------	---

DIMETHYL ETHER:

Effects on fertility	: Application Route: inhalation (gas) Result: Animal testing did not show any effects on fertility.
Effects on foetal development	: Application Route: inhalation (vapour) Method: OECD Test Guideline 414 Result: No teratogenic effects GLP: yes

STOT - single exposure

Not classified based on available information.

Components:

BUTYL ALCOHOL SECONDARY:


Assessment: **May cause respiratory irritation., May cause drowsiness or dizziness.**

AMMONIUM HYDROXIDE ((NH₄)(OH)):

Assessment: **The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.**

STOT - repeated exposure

Not classified based on available information.

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Repeated dose toxicity

Components:

DIMETHYL ETHER:

Species: Rat
 No observed adverse effect level: 47,106 g/m3
 Application Route: inhalation (vapour)
 Method: OECD Test Guideline 452

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks: No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

2-butoxyethanol

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): 1.474 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 1.550 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202
Toxicity to algae	: EC50 (Pseudokirchneriella subcapitata (green algae)): 911 mg/l End point: Growth inhibition Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201
Toxicity to fish (Chronic toxicity)	: NOEC: > 100 mg/l Exposure time: 21 d Species: Danio rerio (zebra fish) Test Type: semi-static test Method: OECD Test Guideline 204

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Butan-2-ol

Toxicity to fish : **LC50 (Pimephales promelas (fathead minnow))**: 3.380 - 3.990 mg/l
Exposure time: 96 h
Test Type: **flow-through test**

Toxicity to daphnia and other aquatic invertebrates : **EC50 (Daphnia magna (Water flea))**: 1.859 - 7.143 mg/l
Exposure time: 48 h
Test Type: **static test**

1-Butoxypropan-2-ol

Toxicity to fish : **LC50 (Guppy (Poecilia reticulata))**: > 560 mg/l
Exposure time: 96 h
Method: **OECD Test Guideline 203**
GLP: **yes**

Toxicity to daphnia and other aquatic invertebrates : **EC50 (Daphnia magna (Water flea))**: > 1.000 mg/l
Exposure time: 48 h
Method: **OECD Test Guideline 202**
GLP: **yes**

Toxicity to algae : **EC50 (Pseudokirchneriella subcapitata (green algae))**: > 1.000 mg/l
Exposure time: 96 h
Method: **OECD Test Guideline 201**
GLP: **yes**

Ammonia, aqueous solution

Toxicity to fish : **LC50 (Pimephales promelas (fathead minnow))**: 8,5 mg/l
Exposure time: 96 h

Cobalt bis(2-ethylhexanoate)

M-Factor (Short-term (acute) aquatic hazard) : **1**

Ecotoxicology Assessment


Short-term (acute) aquatic hazard : **Acute aquatic toxicity Category 1**

Long-term (chronic) aquatic hazard : **Chronic aquatic toxicity Category 3**

dimethyl ether

Toxicity to fish : **LC50 (Poecilia reticulata (guppy))**: > 4,1 g/l
Exposure time: 96 h
Test Type: **semi-static test**
Remarks: **No toxicity at the limit of solubility**

Toxicity to daphnia and other : **EC50 (Daphnia magna Straus)**: > 4,4 g/l

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aquatic invertebrates	Exposure time: 48 h
	Test Type: static test
	Remarks: No toxicity at the limit of solubility
Toxicity to algae	: EC50 : 155 mg/l
	Exposure time: 96 h
	Remarks: QSAR
Toxicity to bacteria	: EC10 (Pseudomonas putida): > 1.600 mg/l

12.2 Persistence and degradability

Components:

2-butoxyethanol

Biodegradability	: Result: Readily biodegradable.
	Biodegradation: 90,4 %
	Exposure time: 28 d
	Method: OECD Test Guideline 301B

Butan-2-ol

Biochemical Oxygen Demand (BOD)	: Biochemical oxygen demand within 5 days 2,15 g/kg
Chemical Oxygen Demand (COD)	: 2,49 g/kg

1-Butoxypropan-2-ol


Biodegradability	: Result: Readily biodegradable.
	Biodegradation: 90 %
	Exposure time: 28 d
	Method: OECD Test Guideline 301E

Cobalt bis(2-ethylhexanoate)

Biodegradability	: Result: Readily biodegradable.
	Biodegradation: 60 %
	Exposure time: 10 d
	Method: OECD Test Guideline 301B

dimethyl ether

Biodegradability	: Test Type: aerobic
	Inoculum: activated sludge
	Concentration: 2 mg/l
	Result: Not readily biodegradable.
	Biodegradation: 5 %
	Method: OECD Test Guideline 301D
	Remarks: According to the results of tests of biodegradability this product is not readily biodegradable.

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12.3 Bioaccumulative potential

Components:

2-butoxyethanol

Partition coefficient: n-octanol/water : log Pow: 0,83

Butan-2-ol

Partition coefficient: n-octanol/water : log Pow: 0,61

dimethyl ether

Partition coefficient: n-octanol/water : log Pow: 0,10

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

Components:

dimethyl ether

Assessment : This substance is not considered to be very persistent and very bioaccumulating (vPvB).. This substance is not considered to be persistent, bioaccumulating and toxic (PBT)..

12.6 Other adverse effects


Product:

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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.

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Contaminated packaging : Empty remaining contents.
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

14.1 UN number

ADN	: UN 1950
ADR	: UN 1950
RID	: UN 1950
IMDG	: UN 1950
IATA	: UN 1950

14.2 UN proper shipping name


ADN	: AEROSOLS
ADR	: AEROSOLS
RID	: AEROSOLS
IMDG	: AEROSOLS
IATA	: AEROSOLS

14.3 Transport hazard class(es)

ADN	: 2
ADR	: 2
RID	: 2
IMDG	: 2.1
IATA	: 2.1

14.4 Packing group

ADN	
Packing group	: Not assigned by regulation
Classification Code	: 5F
Labels	: 2.1
ADR	
Packing group	: Not assigned by regulation
Classification Code	: 5F
Labels	: 2.1
Tunnel restriction code	: (D)

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RID

Packing group : Not assigned by regulation
Classification Code : **5F**
Hazard Identification Number : **23**
Labels : **2.1**

IMDG

Packing group : Not assigned by regulation
Labels : **2.1**
EmS Code : **F-D, S-U**

IATA (Cargo)

Packing instruction (cargo aircraft) : **203**
Packing instruction (LQ) : **Y203**
Packing group : Not assigned by regulation
Labels : **Flammable gas**

IATA (Passenger)

Packing instruction (passenger aircraft) : **203**
Packing instruction (LQ) : **Y203**
Packing group : Not assigned by regulation
Labels : **Flammable gas**

14.5 Environmental hazards

ADN

Environmentally hazardous : no

ADR

Environmentally hazardous : no

RID

Environmentally hazardous : no

IMDG

Marine pollutant : no


14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

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.

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SECTION 15: Regulatory information

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

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

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

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 57). : 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.

P3a	FLAMMABLE AEROSOLS	Quantity 1 150 t	Quantity 2 500 t
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Volatile organic compounds : Directive 2004/42/EC
Volatile organic compounds (VOC) content: 525 g/l

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:


DSL : All components of this product are on the Canadian DSL

AICS Not in compliance with the inventory

ENCS Not in compliance with the inventory

KECI On the inventory, or in compliance with the inventory

PICCS Not in compliance with the inventory

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IECSC	On the inventory, or in compliance with the inventory
TCSI	Not in compliance with the inventory
TSCA	On TSCA 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

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Full text of H-Statements

H220	Extremely flammable gas.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360F	May damage fertility.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

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).


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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
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

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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-pharse : 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