


**SAFETY DATA SHEET**

Revision Date: 12.12.2017

Print Date: 14.12.2017

SDS Number: R0524073

Tectyl® ML V1 CORROSION INHIBITOR

Version: 3.0

VE20065

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® ML V1  
CORROSION INHIBITOR

**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.

Specific target organ toxicity - single  
exposure, Category 3, Central nervous  
system

H336: May cause drowsiness or dizziness.

Chronic aquatic toxicity, Category 3

H412: Harmful to aquatic life with long lasting  
effects.

**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.  
 H336 May cause drowsiness or dizziness.  
 H412 Harmful to aquatic life with long lasting effects.

Supplemental Hazard Statements

: EUH066 Repeated exposure may cause skin dryness or cracking.

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.  
 P271 Use only outdoors or in a well-ventilated area.  
**Storage:**  
 P405 Store locked up.  
 P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.  
**Disposal:**  
 P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclenes, &lt;2% aromatics

**2.3 Other hazards**
**Additional advice**

No information available.

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**SECTION 3: Composition/information on ingredients**
**3.2 Mixtures**



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## Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
Propane	74-98-6 200-827-9 01-2119486944-21-xxxx	Flam. Gas1; H220 Press. GasLiquefied gas; H280	>= 25,00 - < 40,00
Hydrocarbons, C9-C11, n-alkanes, iso- alkanes, cyclenes, <2% aromatics	01-2119463258-33-xxxx	Flam. Liq.3; H226 STOT SE3; H336 Asp. Tox.1; H304	>= 20,00 - < 25,00
Sulfonic acids, petroleum, sodium salts	68608-26-4 271-781-5 01-2119527859-22-xxxx	Eye Irrit.2; H319	>= 2,50 - < 3,00
2-(2-Heptadec-8-enyl- 2-imidazolin-1- yl)ethanol	95-38-5 202-414-9 01-2119777867-13-xxxx	Acute Tox.4; H302 Skin Corr.1C; H314 Eye Dam.1; H318 STOT RE2; H373 Aquatic Acute1; H400 Aquatic Chronic1; H410	>= 0,25 - < 0,50

## Substances with a workplace exposure limit :

Butane	106-97-8 203-448-7 01-2119474691-32-xxxx	Flam. Gas1; H220 Press. GasLiquefied gas; H280	>= 15,00 - < 25,00
(2-Methoxymethylethoxy)propanol	34590-94-8 252-104-2 01-2119450011-60-xxxx		>= 1,00 - < 2,50

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 : Move to fresh air.  
If unconscious, place in recovery position and seek medical advice.


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Consult a physician after significant exposure.

- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.  
If eye irritation persists, consult a specialist.
- 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 : 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)  
Shortness of breath  
confusion  
irregular heartbeat
- Risks : Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material.  
Acute aspiration of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Repeated aspiration of small quantities of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.  
May cause drowsiness or dizziness.  
Repeated exposure may cause skin dryness or cracking.

**4.3 Indication of any immediate medical attention and special treatment needed**

- Treatment : No hazards which require special first aid measures.


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**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 (CO<sub>2</sub>)  
 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  
 sulfur compounds  
 Aldehydes

**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.  
 Use a water spray to cool fully closed containers.

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**SECTION 6: Accidental release measures**


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**6.1 Personal precautions, protective equipment and emergency procedures**

- Personal precautions : Evacuate personnel to safe areas.  
 Remove all sources of ignition.  
 Ensure adequate ventilation.  
 Avoid breathing dust.  
 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.

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**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 exposure - obtain special instructions before use.  
 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.  
 Container may be opened only under exhaust ventilation hood.
- 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.


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**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. Containers which are opened must be carefully resealed and kept upright to prevent leakage. 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
Butane	106-97-8	STEL	750 ppm 1.810 mg/m <sup>3</sup>	GB EH40
		TWA	600 ppm 1.450 mg/m <sup>3</sup>	GB EH40
(2-Methoxymethylethoxy)propanol	34590-94-8	TWA	50 ppm 308 mg/m <sup>3</sup>	2000/39/EC
		TWA	50 ppm 308 mg/m <sup>3</sup>	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 : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Hand protection  
Material : nitrile rubber


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Break through time : 480 min  
 Glove thickness : 0,38 mm

Remarks : The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

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.

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.  
 In the case of dust or aerosol formation use respirator with an approved filter.

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

Appearance : aerosol  
 Colour : amber  
 Odour : characteristic  
 Odour Threshold : No data available  
 pH :  
 No data available  
 Melting point/freezing point : No data available  
 Boiling point/boiling range : < 34 °C  
 Flash point : < -18 °C  
 Evaporation rate : No data available  
 Flammability (solid, gas) : No data available  
 Upper explosion limit : No data available




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Lower explosion limit	: No data available
Vapour pressure	: 373 hPa
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0,87 g/cm <sup>3</sup> (20 °C)
Solubility(ies)	
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: 365 °C
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: 23 mm <sup>2</sup> /s (20 °C)
Oxidizing properties	: No data available

**9.2 Other information**

No data available

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**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.

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

### 10.5 Incompatible materials

Materials to avoid : Acids  
Oxidizing agents  
salts of strong bases  
strong bases

### 10.6 Hazardous decomposition products

Hazardous decomposition products : Aldehydes  
carbon dioxide and carbon monoxide  
Hydrocarbons  
sulfur compounds  
ketones

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## 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.

#### Components:

##### **PROPANE:**

Acute inhalation toxicity : **LC50 (Rat): 1.237 mg/l**  
Exposure time: **2 h**  
Test atmosphere: **gas**  
Assessment: **Not classified as acutely toxic by inhalation under GHS.**  
Remarks: **Information given is based on data obtained from similar substances.**

#### Components:

##### **Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclenes, <2% aromatics:**

Acute oral toxicity : **LD50 (Rat, male and female): > 15.000 mg/kg**  
Method: **OECD Test Guideline 423**  
Remarks: **Information given is based on data obtained from**

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similar substances.

Acute inhalation toxicity : **LC50 (Rat): > 4,95 mg/l**  
 Exposure time: 4 h  
 Test atmosphere: vapour  
 Method: OECD Test Guideline 403  
 Assessment: No adverse effect has been observed in acute inhalation toxicity tests.  
 Remarks: Information given is based on data obtained from similar substances.

Acute dermal toxicity : **LD50 (Rabbit, male and female): >= 3.160 mg/kg**  
 Method: OECD Test Guideline 402  
 Assessment: No adverse effect has been observed in acute dermal toxicity tests.  
 Remarks: Information given is based on data obtained from similar substances.

**Components:****SODIUM PETROLEUM SULFONATE:**

Acute oral toxicity : **LD50 (Rat): > 5.000 mg/kg**  
 Method: OECD Test Guideline 401  
 GLP: yes  
 Remarks: Information given is based on data obtained from similar substances.

Acute inhalation toxicity : **LC50 (Rat): > 1,9 mg/l**  
 Exposure time: 4 h  
 Test atmosphere: dust/mist  
 Method: OECD Test Guideline 403  
 GLP: yes  
 Assessment: The component/mixture is classified as acute inhalation toxicity, category 5.  
 Remarks: No mortality observed at this dose.  
 Information given is based on data obtained from similar substances.

Acute dermal toxicity : **LD50 (Rabbit): > 5.000 mg/kg**  
 Method: OECD Test Guideline 402  
 GLP: yes  
 Remarks: No mortality observed at this dose.  
 Information given is based on data obtained from similar substances.

**Components:****OLEYL HYDROXYETHYL IMIDAZOLINE:**

Acute oral toxicity : **LD50 (Rat): ca. 1.265 mg/kg**


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**Components:**
**BUTANE NORMAL:**

Acute inhalation toxicity : LC50 (Rat): > 50000 ppm  
 Exposure time: 2 h  
 Test atmosphere: gas

**Components:**
**DIPROPYLENE GLYCOL MONOMETHYL ETHER:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg  
 Method: OECD Test Guideline 401

Acute inhalation toxicity : LC0 (Rat, female): > 553 ppm  
 Exposure time: 8 h  
 Test atmosphere: vapour  
 Method: OECD Test Guideline 403  
 Remarks: No mortality observed at this dose.

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

**Skin corrosion/irritation**

Repeated exposure may cause skin dryness or cracking.

**Components:**
**Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclenes, <2% aromatics:**

Result: Slight, transient irritation

**SODIUM PETROLEUM SULFONATE:**

Species: Rabbit  
 Result: Slight, transient irritation  
 Remarks: Information given is based on data obtained from similar substances.

**OLEYL HYDROXYETHYL IMIDAZOLINE:**

Species: Rabbit  
 Method: OECD Test Guideline 404  
 Result: Corrosive after 1 to 4 hours of exposure

**DIPROPYLENE GLYCOL MONOMETHYL ETHER:**

Species: Rabbit  
 Result: No skin irritation

**Serious eye damage/eye irritation**

Not classified based on available information.

**Product:**

Remarks: Unlikely to cause eye irritation or injury.

**Components:**


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**Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclenes, <2% aromatics:**
Result: **No eye irritation**
**SODIUM PETROLEUM SULFONATE:**
Species: **Rabbit**Result: **Irritating to eyes.**Remarks: **Information given is based on data obtained from similar substances.**
**OLEYL HYDROXYETHYL IMIDAZOLINE:**
Result: **Corrosive**
**DIPROPYLENE GLYCOL MONOMETHYL ETHER:**
Species: **Rabbit**Result: **Slight, transient irritation**
**Respiratory or skin sensitisation**
Skin sensitisation: **Not classified based on available information.**Respiratory sensitisation: **Not classified based on available information.**
**Components:**
**SODIUM PETROLEUM SULFONATE:**
Assessment: **Does not cause skin sensitisation.**Remarks: **Information given is based on data obtained from similar substances.**
**OLEYL HYDROXYETHYL IMIDAZOLINE:**
Species: **Guinea pig**Assessment: **Does not cause skin sensitisation.**Method: **OECD Test Guideline 406**
**DIPROPYLENE GLYCOL MONOMETHYL ETHER:**
Species: **Humans**Assessment: **Does not cause skin sensitisation.**
**Germ cell mutagenicity**

Not classified based on available information.

**Components:**
**PROPANE:**

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

**SODIUM PETROLEUM SULFONATE:**

Genotoxicity in vitro : Test Type: **Ames test**  
 Test species: **Salmonella typhimurium**


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Metabolic activation: **with and without metabolic activation**  
 Result: **negative**  
 Remarks: **Information given is based on data obtained from similar substances.**

**BUTANE NORMAL:**

Genotoxicity in vitro

: Test Type: Ames test  
 Test species: Salmonella typhimurium  
 Metabolic activation: with and without metabolic activation  
 Result: negative

**DIPROPYLENE GLYCOL MONOMETHYL ETHER:**

Genotoxicity in vitro

: Test Type: Ames test  
 Test species: Salmonella typhimurium  
 Metabolic activation: with and without metabolic activation  
 Result: negative

**Carcinogenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

May cause drowsiness or dizziness.

**Components:**
**Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclenes, <2% aromatics:**

 Assessment: **May cause drowsiness or dizziness.**
**STOT - repeated exposure**

Not classified based on available information.

**Components:**
**OLEYL HYDROXYETHYL IMIDAZOLINE:**
Exposure routes: **Ingestion**Target Organs: **Gastrointestinal tract, thymus gland**
 Assessment: **May cause damage to organs through prolonged or repeated exposure.**
**Aspiration toxicity**

Not classified based on available information.

**Components:**
**Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclenes, <2% aromatics:**

May be fatal if swallowed and enters airways.

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**Further information****Product:**

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

**Components:****DIPROPYLENE GLYCOL MONOMETHYL ETHER:**

Remarks: Central nervous system

**SECTION 12: Ecological information****12.1 Toxicity****Components:**

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclenes, &lt;2% aromatics

Toxicity to fish : **LL50 (Oncorhynchus mykiss (rainbow trout))**: > 1.000 mg/l  
 Exposure time: 96 h  
 Test Type: **semi-static test**  
 Test substance: **WAF**  
 Method: **OECD Test Guideline 203**

Toxicity to daphnia and other aquatic invertebrates : **EL50 (Water flea (Daphnia magna))**: 1.000 mg/l  
 Exposure time: 48 h  
 Test Type: **static test**  
 Test substance: **WAF**  
 Method: **OECD Test Guideline 202**

Toxicity to algae : **EL50 (Pseudokirchneriella subcapitata (green algae))**: > 1.000 mg/l  
 End point: **Growth inhibition**  
 Exposure time: 72 h  
 Test Type: **static test**  
 Method: **OECD Test Guideline 201**

Sulfonic acids, petroleum, sodium salts

Toxicity to fish : **LL50 (Pimephales promelas (fathead minnow))**: > 1.000 mg/l  
 Exposure time: 96 h  
 Test Type: **Renewal**  
 Test substance: **WAF**  
 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

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Test Type: **static test**  
 Test substance: **WAF**  
 Remarks: **Information given is based on data obtained from similar substances.**

Toxicity to algae : **NOEC (Pseudokirchneriella subcapitata (green algae)): > 1.000 mg/l**  
 End point: **Growth inhibition**  
 Exposure time: **72 h**  
 Test Type: **static test**  
 Test substance: **WAF**  
 Remarks: **Information given is based on data obtained from similar substances.**

## 2-(2-Heptadec-8-enyl-2-imidazolyl)ethanol

Toxicity to fish : **LC50 (Danio rerio (zebra fish)): 0,3 mg/l**  
 Exposure time: **96 h**  
 Test Type: **static test**  
 Method: **OECD Test Guideline 203**

Toxicity to daphnia and other aquatic invertebrates : **EC50 (Water flea (Daphnia magna)): 0,163 mg/l**  
 Exposure time: **48 h**  
 Test Type: **semi-static test**  
 Method: **OECD Test Guideline 202**

Toxicity to algae : **EC50 (Desmodesmus subspicatus (green algae)): 0,03 mg/l**  
 End point: **Growth inhibition**  
 Exposure time: **72 h**  
 Test Type: **static test**  
 Method: **OECD Test Guideline 201**

M-Factor (Acute aquatic toxicity) : **10**

M-Factor (Chronic aquatic toxicity) : **1**

## Butane

Toxicity to fish : **Remarks: No toxicity at the limit of solubility QSAR**

Toxicity to daphnia and other aquatic invertebrates : **EC50 (Daphnia magna (Water flea)): Expected > 10 - < 100 mg/l**  
 Exposure time: **48 h**  
 Remarks: **QSAR**

Toxicity to algae : **EC50 (green algae): Expected 7,7 mg/l**  
 Exposure time: **96 h**  
 Remarks: **QSAR**




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(2-Methoxymethylethoxy)propanol

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 10.000 mg/l  
 Exposure time: 96 h  
 Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 1.919 mg/l  
 Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 969 mg/l  
 End point: Growth inhibition  
 Exposure time: 72 h

**12.2 Persistence and degradability**
**Components:**

Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclenes, &lt;2% aromatics

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

Sulfonic acids, petroleum, sodium salts

Biodegradability : Result: **Not readily biodegradable.**  
 Biodegradation: **8 %**  
 Exposure time: **28 d**  
 Method: **OECD Test Guideline 301D**  
 Remarks: **Information given is based on data obtained from similar substances.**

2-(2-Heptadec-8-enyl-2-imidazolin-1-yl)ethanol

Biodegradability : Result: **Not readily biodegradable.**  
 Biodegradation: **1 %**  
 Exposure time: **28 d**  
 Method: **OECD Test Guideline 301B**

Butane

Biodegradability : Result: Readily biodegradable.  
 Remarks: Information given is based on data obtained from similar substances.

(2-Methoxymethylethoxy)propanol

Biodegradability : Result: Readily biodegradable.  
 Biodegradation: **75 %**  
 Exposure time: **28 d**  
 Method: **OECD Test Guideline 301F**

Chemical Oxygen Demand : 2,02 mg/g



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(COD)

ThOD : 2,06 mg/g

### 12.3 Bioaccumulative potential

#### Components:

Propane

Partition coefficient: n-octanol/water : log Pow: 2,36

Sulfonic acids, petroleum, sodium salts

Partition coefficient: n-octanol/water : log Pow: Calculated &gt; 10

2-(2-Heptadec-8-enyl-2-imidazolin-1-yl)ethanol

Partition coefficient: n-octanol/water : log Pow: 8

Butane

Partition coefficient: n-octanol/water : log Pow: 2,89

(2-Methoxymethylethoxy)propanol

Partition coefficient: n-octanol/water : log Pow: 0,004

### 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 : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life., Harmful to aquatic life with long lasting effects.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.  
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.

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## SECTION 14: Transport information

### SECTION 14: Transport information

#### 14.1 UN number

**ADR:** Not dangerous goods  
**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** UN1950  
**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** UN1950  
**INTERNATIONAL MARITIME DANGEROUS GOODS:** UN1950  
**RID:** Not dangerous goods

#### 14.2 UN proper shipping name

**ADR:** Not dangerous goods  
**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** Aerosols, flammable  
**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** Aerosols, flammable  
**INTERNATIONAL MARITIME DANGEROUS GOODS:** AEROSOLS  
**RID:** Not dangerous goods

#### 14.3 Transport hazard class(es)


**ADR:** Not dangerous goods  
**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** 2.1  
**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** 2.1  
**INTERNATIONAL MARITIME DANGEROUS GOODS:** 2.1  
**RID:** Not dangerous goods

#### 14.4 Packing group

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

#### 14.5 Environmental hazards

**ADR:** Environmentally hazardous  
**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** Environmentally hazardous  
**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** Environmentally hazardous

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**INTERNATIONAL MARITIME DANGEROUS GOODS:** Environmentally hazardous, MARINE POLLUTANT  
**RID:** Environmentally hazardous

**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.

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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) : Butane

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

		Quantity 1	Quantity 2
P3a	FLAMMABLE AEROSOLS	150 t	500 t
18	Liquefied extremely flammable gases (including	50 t	200 t

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LPG) and natural gas

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 On the inventory, or in compliance with the inventory

ENCS Not in compliance with the inventory

KECI On the inventory, or 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

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

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**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.

**H304** May be fatal if swallowed and enters airways.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

**H319** Causes serious eye irritation.


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<b>H336</b>	May cause drowsiness or dizziness.
<b>H373</b>	May cause damage to organs through prolonged or repeated exposure if swallowed.
<b>H400</b>	Very toxic to aquatic life.
<b>H410</b>	Very 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).

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

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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.  
 ADN: 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