



# SAFETY DATA SHEET

Version: 2.0

Revision Date: 09.06.2020

Print Date: 25/10/2022

Conforms to EU Regulation 1907/2006/EC as amended. - SDSGHS\_HU

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

### 1.1 Product identifier

Trade name : No data available

Product code : 887054

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

Recommended use : Sealant

### 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

+1-800-VALVOLINE (+1-800-825-8654), or  
contact your local emergency telephone number at  
+36 80 201 199

### Product Information

+31 (0)78 654 3500 (in the Netherlands), or  
contact your local CSR contact person

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Aerosols, Category 1

H229: Pressurised container: May burst if heated.

H222: Extremely flammable aerosol.

Skin irritation, Category 2

H315: Causes skin irritation.

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

H336: May cause drowsiness or dizziness.

Long-term (chronic) aquatic hazard,  
Category 2

H411: Toxic to aquatic life with long lasting effects.

## 2.2 Label elements

UFI : MRV1-1KVF-DT4F-U1X2

### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.  
 H229 Pressurised container: May burst if heated.  
 H315 Causes skin irritation.  
 H336 May cause drowsiness or dizziness.  
 H411 Toxic to aquatic life with long lasting effects.

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.  
 P260 Do not breathe spray.  
**Storage:**  
 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, C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% nhexane  
 Pentane  
 butanone  
 2-Methylbutane

## 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



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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 (%)
Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% nhexane	921-024-6 01-2119475514-35-xxxx	Flam. Liq.2; H225 Skin Irrit.2; H315 STOT SE3; H336 Asp. Tox.1; H304 Aquatic Chronic2; H411	>= 40,00 - < 50,00
Propane	74-98-6 200-827-9 01-2119486944-21-xxxx	Flam. Gas1; H220 Press. GasLiquefied gas; H280	>= 5,00 - < 10,00
Isobutane	75-28-5 200-857-2 01-2119485395-27-xxxx	Flam. Gas1; H220 Press. GasLiquefied gas; H280	>= 5,00 - < 10,00
Pentane	109-66-0 203-692-4 01-2119459286-30-xxxx	Flam. Liq.1; H224 STOT SE3; H336 Asp. Tox.1; H304 Aquatic Chronic2; H411	>= 5,00 - < 10,00
butanone	78-93-3 201-159-0 01-2119457290-43-xxxx	Flam. Liq.2; H225 Eye Irrit.2; H319 STOT SE3; H336	>= 2,50 - < 5,00
2-Methylbutane	78-78-4 201-142-8	Flam. Liq.1; H224 STOT SE3; H336 Asp. Tox.1; H304 Aquatic Chronic2; H411	>= 1,00 - < 2,50
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	>= 15,00 - < 25,00
Butane	106-97-8	Flam. Gas1; H220	>= 5,00 - < 10,00



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	203-448-7 01-2119474691-32-xxxx	Press. GasLiquefied gas; H280	
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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 : Move to fresh air.  
If unconscious, place in recovery position and seek medical advice.  
Consult a physician after significant exposure.
- 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 : 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 : No symptoms known or expected.
- Risks : May cause drowsiness or dizziness.  
Causes skin irritation.

### 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

### 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.  
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.

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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.  
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.

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

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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. 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
Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% nhexane		CEIL (Mist)	5 mg/m3 Mist	HU OEL
		CEIL (Mist)	5 mg/m3 Mist	HU OEL
dimethyl ether	115-10-6	TWA	1.000 ppm 1.920 mg/m3	2000/39/EC
		TWA	1.920 mg/m3	HU OEL
		STEL	15.360 mg/m3	HU OEL
Butane	106-97-8	TWA	2.350 mg/m3	HU OEL
		STEL	9.400 mg/m3	HU OEL
Pentane	109-66-0	TWA	1.000 ppm 3.000 mg/m3	2006/15/EC
		TWA	2.950 mg/m3	HU OEL



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		STEL	23.600 mg/m <sup>3</sup>	HU OEL
butanone	78-93-3	TWA	200 ppm 600 mg/m <sup>3</sup>	2000/39/EC
		STEL	300 ppm 900 mg/m <sup>3</sup>	2000/39/EC
		TWA	600 mg/m <sup>3</sup>	HU OEL
		STEL	900 mg/m <sup>3</sup>	HU OEL
2-Methylbutane	78-78-4	TWA	1.000 ppm 3.000 mg/m <sup>3</sup>	2006/15/EC
		TWA	3.000 mg/m <sup>3</sup>	HU OEL
		STEL	24.000 mg/m <sup>3</sup>	HU OEL

### 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/m<sup>3</sup>**  
 End Use: **Consumers**  
 Exposure routes: **Inhalation**  
 Potential health effects: **Long-term systemic effects**  
 Value: **471 mg/m<sup>3</sup>**

### 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**

## 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.





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## 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
- Remarks : 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.
- 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.
- Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
- Filter type : Particulates type (P)

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Appearance : aerosol
- Colour : white, translucent
- Odour : solvent-like
- Odour Threshold : No data available
- pH : No data available
- Melting point/freezing point : No data available
- Initial boiling point and boiling : Not applicable



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range

Flash point	:	Not applicable
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit / Upper flammability limit	:	26,2 %(V)
Lower explosion limit / Lower flammability limit	:	0,6 %(V)
Vapour pressure	:	8 hPa (20 °C)
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	0,68 g/cm <sup>3</sup> (20 °C)
Solubility(ies)		
Water solubility	:	immiscible
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	> 200 °C
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	:	not auto-flammable
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## SECTION 10: Stability and reactivity

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## 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 : None known.  
Heat, flames and sparks.

## 10.5 Incompatible materials

Materials to avoid : None known.

## 10.6 Hazardous decomposition products

Hazardous decomposition products : No hazardous decomposition products are known.

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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:

##### Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% nhexane:

Acute oral toxicity : LD50 (Rat): > 5.840 mg/kg  
Remarks: Information given is based on data obtained from similar substances.

Acute inhalation toxicity : LC50 (Rat): > 25,2 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist



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Acute dermal toxicity : **LD50 (Rat): > 2.800 - 3.100 mg/kg**  
Assessment: **Not classified as acutely toxic by dermal absorption under GHS.**  
Remarks: **Information given is based on data obtained from similar substances.**

### 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:

#### **ISOBUTANE:**

Acute inhalation toxicity : **LC50 (Mouse, male): 520400 ppm**  
Exposure time: **2 h**  
Test atmosphere: **gas**

### Components:

#### **PENTANE NORMAL:**

Acute oral toxicity : **LD50 (Rat): > 2.000 mg/kg**  
Assessment: **Not classified as acutely toxic by ingestion under GHS.**  
Remarks: **No mortality observed at this dose.**

Acute inhalation toxicity : **LC50 (Rat): > 20 mg/l**  
Exposure time: **4 h**  
Test atmosphere: **vapour**  
Assessment: **No adverse effect has been observed in acute inhalation toxicity tests.**

### Components:

#### **METHYL ETHYL KETONE:**

Acute oral toxicity : **LD50 (Rat): 2.300 - 3.500 mg/kg**

Acute dermal toxicity : **LD50 (Rabbit): > 5 g/kg**

### Components:

#### **ISOPENTANE:**



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Acute oral toxicity	: LD50 (Rat): > 5.000 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	: LC50 (Mouse): 450 mg/l Exposure time: 2 h
	: LC50 (Mouse): 140.000 mg/l Exposure time: 2 h
	: LC50 (Mouse): 1.000 mg/l Exposure time: 1 h
	: LC50 (Rat): > 25,3 mg/l Exposure time: 4 h Test atmosphere: vapour Remarks: No mortality observed at this dose. Information given is based on data obtained from similar substances.

## 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

## Components:

### **BUTANE NORMAL:**

Acute inhalation toxicity	: LC50 (Mouse): 680 mg/l Exposure time: 2 h
	: LC50 (Rat): > 50000 ppm Exposure time: 2 h Test atmosphere: gas

## **Skin corrosion/irritation**

Causes skin irritation.

## Product:



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Remarks: May cause skin irritation and/or dermatitis.

## Components:

### **Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% nhexane:**

Result: **Irritating to skin.**

### **ISOBUTANE:**

Result: **No skin irritation**

### **PENTANE NORMAL:**

Result: **Slight, transient irritation**

Result: **Repeated exposure may cause skin dryness or cracking.**

### **METHYL ETHYL KETONE:**

Result: **No skin irritation**

### **ISOPENTANE:**

Species: **Rabbit**

Result: **Slight, transient irritation**

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

## **Serious eye damage/eye irritation**

Not classified based on available information.

## Product:

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

## Components:

### **Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% nhexane:**

Result: **Slight, transient irritation**

### **ISOBUTANE:**

Result: **No eye irritation**

### **PENTANE NORMAL:**

Result: **Slight, transient irritation**

### **METHYL ETHYL KETONE:**

Result: **Irritating to eyes.**

### **ISOPENTANE:**

Species: **Rabbit**

Result: **Slight, transient irritation**



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## Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

### Components:

#### **ISOPENTANE:**

Species: **Guinea pig**

Assessment: **Does not cause skin sensitisation.**

Method: **OECD Test Guideline 406**

#### **DIMETHYL ETHER:**

Remarks: **Not applicable**

## Germ cell mutagenicity

Not classified based on available information.

### Components:

#### **Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% nhexane:**

Germ cell mutagenicity-Assessment : **Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)**

#### **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.**

#### **ISOBUTANE:**

Genotoxicity in vitro : Test Type: **Chromosome aberration test in vitro**  
Test species: **Human lymphocytes**  
Metabolic activation: **with and without metabolic activation**  
Method: **OECD Test Guideline 473**  
Result: **negative**  
GLP: **yes**

: Test Type: **Ames test**  
Metabolic activation: **with and without metabolic activation**  
Result: **negative**

Genotoxicity in vivo : Test Type: **in vivo assay**  
Test species: **Drosophila melanogaster (vinegar fly)**  
Result: **negative**  
Remarks: **Information given is based on data obtained from similar substances.**



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Test Type: **In vivo micronucleus test**  
Test species: **Rat**  
Method: **OECD Test Guideline 474**  
Result: **negative**  
Remarks: **Information given is based on data obtained from similar substances.**

## ISOPENTANE:

Genotoxicity in vitro : Test Type: **Ames test**  
Test species: **Salmonella typhimurium**  
Metabolic activation: **with and without metabolic activation**  
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**

: Test Type: **unscheduled DNA synthesis assay**  
Result: **negative**

Genotoxicity in vivo : Test species: **Drosophila melanogaster (vinegar fly)**  
Result: **negative**

## BUTANE NORMAL:

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.

## Components:

### Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% nhexane:

Carcinogenicity - Assessment : **Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)**

## DIMETHYL ETHER:

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





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Result: **negative**

## Reproductive toxicity

Not classified based on available information.

### Components:

#### **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

May cause drowsiness or dizziness.

### Components:

#### **Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% nhexane:**

Assessment: **May cause drowsiness or dizziness.**

#### **PENTANE NORMAL:**

Assessment: **May cause drowsiness or dizziness.**

#### **METHYL ETHYL KETONE:**

Assessment: **May cause drowsiness or dizziness.**

## STOT - repeated exposure

Not classified based on available information.

## 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.

### Components:

#### **Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% nhexane:**

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



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## PENTANE NORMAL:

May be fatal if swallowed and enters airways.

## METHYL ETHYL KETONE:

May be harmful if swallowed and enters airways.

## ISOPENTANE:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

### 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:

##### METHYL ETHYL KETONE:

Remarks: Central nervous system

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% nhexane

Toxicity to fish	: LL50 ( <i>Oncorhynchus mykiss</i> (rainbow trout)): 11,4 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 ( <i>Daphnia hyalina</i> (water flea)): 3 mg/l Exposure time: 48 h Test Type: static test Test substance: WAF Method: OECD Test Guideline 202
Toxicity to algae	: EL50 ( <i>Pseudokirchneriella subcapitata</i> (green algae)): > 10 - 30 mg/l End point: Growth inhibition



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Exposure time: 72 h  
Test Type: static test  
Test substance: WAF  
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,17 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Test Type: static test  
Test substance: WAF  
Method: OECD Test Guideline 211

## Pentane

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 4,26 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l  
Exposure time: 48 h

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 10,7 mg/l  
Exposure time: 72 h

## butanone

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 3.130 - 3.320 mg/l  
Exposure time: 96 h  
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 4.025 - 6.440 mg/l  
Exposure time: 48 h  
Test Type: static test  
Remarks: Intoxication

## 2-Methylbutane

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 4,26 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): Calculated 2,3 mg/l  
Exposure time: 48 h

Toxicity to algae : EC50 (Scenedesmus capricornutum (fresh water algae)): 10,7 mg/l  
End point: Growth inhibition  
Exposure time: 72 h



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	Test Type: <b>static test</b> Remarks: <b>Information given is based on data obtained from similar substances.</b>
	<b>NOEC : 7,51 mg/l</b> End point: <b>Growth inhibition</b> Exposure time: <b>72 h</b> Test Type: <b>static test</b> Remarks: <b>Information given is based on data obtained from similar substances.</b>
Toxicity to fish (Chronic toxicity)	: <b>NOELR: Calculated 7,6 mg/l</b> Exposure time: <b>28 d</b> Species: <b>Oncorhynchus mykiss (rainbow trout)</b>
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: <b>NOELR: Calculated 13,29 mg/l</b> Exposure time: <b>21 d</b> Species: <b>Daphnia magna (Water flea)</b>

## dimethyl ether

Toxicity to fish	: <b>LC50 (Poecilia reticulata (guppy)): &gt; 4,1 g/l</b> Exposure time: <b>96 h</b> Test Type: <b>semi-static test</b> Remarks: <b>No toxicity at the limit of solubility</b>
Toxicity to daphnia and other aquatic invertebrates	: <b>EC50 (Daphnia magna Straus): &gt; 4,4 g/l</b> Exposure time: <b>48 h</b> Test Type: <b>static test</b> Remarks: <b>No toxicity at the limit of solubility</b>
Toxicity to algae	: <b>EC50 : 155 mg/l</b> Exposure time: <b>96 h</b> Remarks: <b>QSAR</b>
Toxicity to bacteria	: <b>EC10 (Pseudomonas putida): &gt; 1.600 mg/l</b>

## Butane

Toxicity to fish	: Remarks: <b>No toxicity at the limit of solubility</b> <b>QSAR</b>
Toxicity to daphnia and other aquatic invertebrates	: <b>EC50 (Daphnia magna (Water flea)): Expected &gt; 10 - &lt; 100 mg/l</b> Exposure time: <b>48 h</b> Remarks: <b>QSAR</b>
Toxicity to algae	: <b>EC50 (green algae): Expected 7,7 mg/l</b> Exposure time: <b>96 h</b> Remarks: <b>QSAR</b>



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## 12.2 Persistence and degradability

### Components:

Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% nhexane

Biodegradability : Inoculum: **activated sludge**  
Biodegradation: **98 %**  
Exposure time: **28 d**  
Method: **OECD Test Guideline 301F**

Pentane

Biodegradability : Result: **Readily biodegradable.**  
Biodegradation: **87 %**  
Exposure time: **28 d**  
Method: **OECD Test Guideline 301F**

2-Methylbutane

Biodegradability : Result: **Readily biodegradable.**  
Biodegradation: **71 %**  
Exposure time: **28 d**  
Method: **OECD Test Guideline 301F**

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.**

Butane

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

## 12.3 Bioaccumulative potential

### Components:

Propane

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

Isobutane

Partition coefficient: n-octanol/water : log Pow: **2,76**



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Pentane

Partition coefficient: n-octanol/water : log Pow: 3,39

butanone

Partition coefficient: n-octanol/water : log Pow: 0,29

dimethyl ether

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

Butane

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

## 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 : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic 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



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courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

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

### 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

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Labels : 2.1

## ADR

Packing group : Not assigned by regulation

Classification Code : 5F

Labels : 2.1

Tunnel restriction code : (D)

## 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 : yes

### ADR

Environmentally hazardous : yes

### RID

Environmentally hazardous : yes

### IMDG

Marine pollutant : yes

### IATA (Passenger)

Environmentally hazardous : yes

### IATA (Cargo)

Environmentally hazardous : yes





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## 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.

## 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 - 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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:  
ISOBUTANE (Number on list 29, 28)

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



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P3a	FLAMMABLE AEROSOLS	150 t	500 t
E2	ENVIRONMENTAL HAZARDS	200 t	500 t
18	Liquefied extremely flammable gases (including LPG) and natural gas	50 t	200 t

### 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.

44/2000. (XII 27) Ministry of health dangerous substances and preparations dangerous for certain procedures and arrangements for activities  
2000 XXV. Law on chemical safety

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

DSL	:	This product contains one or several components that are not on the Canadian DSL and have annual quantity limits.
AICS	:	Not in compliance with the inventory
ENCS	:	Not in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
TCSI	:	Not in compliance with the inventory
TSCA	:	Not On TSCA Inventory

### Inventories



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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

Internal information : 000000274799

### Full text of H-Statements

H220	Extremely flammable gas.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
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).

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



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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  
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



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