# SAFETY DATA SHEET ACCORDING TO REGULATION (EC) 1907/2006

**Product name:** **Stonder Professional Headlight Clearcoat Spray**
**Creation date:** **03.04.2023**, **Revision:** **16.05.2023**, **version:** **1.1**

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

**Product name**
Stonder Professional Headlight Clearcoat Spray

**Product code**
[80912]

https://my.chemius.net/p/cnDrDS/en/pd/en

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

**Relevant identified uses**

**Sector of Use**
SU21 Consumer Uses (private households = general public = consumers)
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
**Product Category**
PC9a Coatings and paints, Thinners, Paint removers
**Process Category**
PROC7 Industrial Spraying
PROC11 Non-Industrial Spraying

**Uses advised against**
No information.

### 1.3 Details of the supplier of the safety data sheet

**Supplier**
Rags LTD
Džūkstes str.1
LV-1004 Riga, Latvia
+37167808780
rags@rags.lv

### 1.4 Emergency Telephone Number

**Emergency**
112

**Supplier**
+37167808780

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008 (CLP)**
Aerosol 1; H222 + H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
Skin Irrit. 2; H315 Causes skin irritation.
Eye Irrit. 2; H319 Causes serious eye irritation.
STOT SE 3; H336 May cause drowsiness or dizziness.
Aquatic Chronic 3; H412 Harmful to aquatic life with long lasting effects.

### 2.2 Label elements

#### Labelling according to Regulation (EC) No 1272/2008 [CLP]

**Signal word: DANGER**

H222 + H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
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 dust/fume/gas/mist/vapours/spray.
P410 + P412 Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122°F.
P501 Dispose of contents/container in accordance with national regulation.

#### Contains:

acetone
xylene
hydrocarbons, C9, aromatic
2-methoxy-1-methylethyl acetate
ethylbenzene
butan-1-ol

### 2.3 Other hazards

#### PBT/vPvB

No information.

#### Endocrine disrupting properties

No information.

#### Additional information

No information.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

For mixtures see 3.2.

### 3.2 Mixtures

| Name | CAS EC Index Reach | % | Classification according to Regulation (EC) No 1272/2008 (CLP) | Specific Concentration Limits | Notes for substances |
|---|---|---|---|---|---|
| acetone | 67-64-1<br>200-662-2<br>606-001-00-8 | 20-<25 | Flam. Liq. 2; H225<br>Eye Irrit. 2; H319<br>STOT SE 3; H336<br>EUH066 | / | / |
| dimethyl ether | 115-10-6<br>204-065-8<br>- | 12,5-20 | Flam. Gas 1; H220<br>Press. Gas; H280 | / | / |

| | | | | | |
|---|---|---|---|---|---|
| **xylene** | 1330-20-7<br>215-535-7<br>601-022-00-9 | 5-<10 | Flam. Liq. 3; H226<br>Asp. Tox. 1; H304<br>Acute Tox. 4; H312<br>Skin Irrit. 2; H315<br>Eye Irrit. 2; H319<br>Acute Tox. 4; H332<br>STOT SE 3; H335<br>STOT RE 2; H373 | / | C |
| **propane** | 74-98-6<br>200-827-9<br>-<br>01-2119485394-21 | 5-<10 | Flam. Gas 1; H220<br>Press. Gas; H280 | / | / |
| **hydrocarbons, C9, aromatic** | -<br>918-668-5<br>-<br>01-2119455851-35 | 5-<10 | Flam. Liq. 3; H226<br>Asp. Tox. 1; H304<br>STOT SE 3; H335<br>STOT SE 3; H336<br>Aquatic Chronic 2; H411<br>EUH066 | / | / |
| **butane** | 106-97-8<br>203-448-7<br>601-004-00-0<br>01-2119474691-32 | 5-<10 | Flam. Gas 1; H220<br>Press. Gas; H280 | / | C |
| **isobutane** | 75-28-5<br>200-857-2<br>- | 5-<10 | Flam. Gas 1; H220<br>Press. Gas; H280 | / | / |
| **2-methoxy-1-methylethyl acetate** | 108-65-6<br>203-603-9<br>607-195-00-7 | 2.5-<5 | Flam. Liq. 3; H226<br>STOT SE 3; H336 | / | / |
| **ethylbenzene** | 100-41-4<br>202-849-4<br>601-023-00-4<br>01-2119489370-35-XXXX | 2.5-<5 | Flam. Liq. 2; H225<br>Asp. Tox. 1; H304<br>Acute Tox. 4; H332<br>STOT RE 2; H373<br>Aquatic Chronic 3; H412 | / | / |
| **butan-1-ol** | 71-36-3<br>200-751-6<br>603-004-00-6 | <2.5 | Flam. Liq. 3; H226<br>Acute Tox. 4; H302<br>Skin Irrit. 2; H315<br>Eye Dam. 1; H318<br>STOT SE 3; H335<br>STOT SE 3; H336 | / | / |

### Notes for substances

| | |
|---|---|
| C | Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers.<br><br>In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers. |

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General notes

Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician.

#### Following inhalation

Remove patient to fresh air - move out of dangerous area. In case of unconsciousness bring patient into stable side position and seek medical attention. If breathing is irregular or respiratory arrest occurs provide artificial respiration. Keep at rest in a position comfortable for breathing. Seek medical help immediately.

#### Following skin contact

Take off all contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water. Consult a physician.

#### Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. If irritation persists, seek professional medical attention.

**Following ingestion**
Drink plenty of water in small sips. Provide fresh air Call a POISON CENTER or doctor if you feel unwell.

### 4.2 Most important symptoms and effects, both acute and delayed

**Following inhalation**
Coughing, sneezing, nasal discharge, labored breathing. Vapours may cause drowsiness and dizziness.

**Following skin contact**
Itching, redness, pain.

**Following eye contact**
Redness, tearing, pain.

**Following ingestion**
No information.

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

No information.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

**Suitable extinguishing media**
Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

**Unsuitable extinguishing media**
Full water jet.

### 5.2 Special hazards arising from the substance or mixture

**Hazardous combustion products**
No information.

### 5.3 Advice for firefighters

**Protective actions**
Cool containers at risk with water spray. If possible remove containers from endangered area.

**Special protective equipment for fire-fighters**
Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (BS EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (BS EN 137).

**Additional information**
No information.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

**For non-emergency personnel**
**Protective equipment**
No information.

**Precautionary measures**
Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking!

**Emergency procedures**

No information.

For emergency responders

No information.

### 6.2 Environmental precautions

In case of release into the environment, inform the relevant authorities.

### 6.3 Methods and material for containment and cleaning up

For containment

No information.

For cleaning up

Collect the spray cans and hand them over to an authorized waste disposal contractor.

OTHER INFORMATION

No information.

### 6.4 Reference to other sections

See also sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Ensure adequate ventilation. Keep away from sources of ignition - no smoking. Use spark-proof tools. Take precautionary measures against static discharges.

Measures to prevent aerosol and dust generation

No information.

Measures to protect the environment

No information.

Other measures

No information.

Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe vapours/mist.

### 7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Protect from open fire, heat and direct sunlight. Keep away from food, drink and animal feeding stuffs.

Packaging materials

No information.

Requirements for storage rooms and vessels

No information.

Storage class

No information.

Further information on storage conditions

No information.

### 7.3 Specific end use(s)

### Recommendations
No information.

### Industrial sector specific solutions
No information.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Occupational Exposure limit values

| Name | mg/m³ | ml/m³ | Short-term value mg/m³ | Short-term value ml/m³ | Remark | Biological Tolerance Values |
|---|---|---|---|---|---|---|
| Ethylbenzene (100-41-4) | 441 | 100 | 552 | 125 | Sk | / |
| Xylene, o-,m-,p- or mixed isomers (1330-20-7) | 220 | 50 | 441 | 100 | Sk, BMGV | 650 mmol methyl hippuric acid/mol creatinine in urine - Post shift<br>650 mmol methyl hippuric acid/mol creatinine in urine - Post shift<br>650 mmol methyl hippuric acid/mol creatinine in urine - Post shift |
| Butane (106-97-8) | 1450 | 600 | 1810 | 750 | Carc, (only applies if Butane contains more than 0.1% of buta-1,3-diene) | / |
| 1-Methoxypropyl acetate (108-65-6) | 274 | 50 | 548 | 100 | Sk | / |
| Acetone (67-64-1) | 1210 | 500 | 3620 | 1500 | / | / |
| Butan-1-ol (71-36-3) | / | / | 154 | 50 | Sk | / |
| Dimethyl ether (115-10-6) | 766 | 400 | 958 | 500 | / | / |

#### Information on monitoring procedures
BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

#### DNEL/DMEL values

#### For product
No information.

#### For components

| Name | Type | Exposure route | exp. frequency | Remark | value |
|---|---|---|---|---|---|
| dimethyl ether | Worker | inhalation | long term systemic effects | / | 1894 mg/m³ |
| dimethyl ether | Consumer | inhalation | long term systemic effects | / | 471 mg/m³ |
| hydrocarbons, C9, aromatic | Worker | inhalation | long term systemic effects | / | 150 mg/m³ |
| hydrocarbons, C9, aromatic | Worker | dermal | long term systemic effects | / | 25 mg/kg bw/day |
| hydrocarbons, C9, aromatic | Consumer | inhalation | long term systemic effects | / | 32 mg/m³ |
| hydrocarbons, C9, aromatic | Consumer | dermal | long term systemic effects | / | 11 mg/kg bw/day |
| hydrocarbons, C9, aromatic | Consumer | oral | long term systemic effects | / | 11 mg/kg bw/day |

| | | | | | |
|---|---|---|---|---|---|
| 2-methoxy-1-methylethyl acetate | Worker | inhalation | long term systemic effects | / | 275 mg/m³ |
| 2-methoxy-1-methylethyl acetate | Worker | inhalation | short term local effects | / | 550 mg/m³ |
| 2-methoxy-1-methylethyl acetate | Worker | dermal | long term systemic effects | / | 796 mg/kg bw/day |
| 2-methoxy-1-methylethyl acetate | Consumer | inhalation | long term systemic effects | / | 33 mg/m³ |
| 2-methoxy-1-methylethyl acetate | Consumer | inhalation | long term local effects | / | 33 mg/m³ |
| 2-methoxy-1-methylethyl acetate | Consumer | dermal | long term systemic effects | / | 320 mg/kg bw/day |
| 2-methoxy-1-methylethyl acetate | Consumer | oral | long term systemic effects | / | 36 mg/kg bw/day |
| 2-methoxy-1-methylethyl acetate | Consumer | oral | short term systemic effects | / | 500 mg/kg bw/day |
| butan-1-ol | Worker | inhalation | long term local effects | / | mg/m$^3$ |
| butan-1-ol | Consumer | inhalation | long term systemic effects | / | mg/m$^3$ |
| butan-1-ol | Consumer | inhalation | long term local effects | / | mg/m$^3$ |
| butan-1-ol | Consumer | dermal | long term systemic effects | / | mg/kg bw/day |
| butan-1-ol | Consumer | oral | long term systemic effects | / | mg/kg bw/day |

PNEC values

For product

No information.

For components

| Name | Exposure route | Remark | value |
|---|---|---|---|
| dimethyl ether | fresh water | / | 0.155 mg/L |
| dimethyl ether | water, intermittent release | fresh water | 1.549 mg/L |
| dimethyl ether | marine water | / | 0.016 mg/L |
| dimethyl ether | water treatment plant | / | 160 mg/L |
| dimethyl ether | fresh water sediment | dry weight | 0.681 mg/kg |
| dimethyl ether | marine water sediment | dry weight | 0.069 mg/kg |
| dimethyl ether | soil | dry weight | 0.045 mg/kg |
| 2-methoxy-1-methylethyl acetate | fresh water | / | 0.635 mg/L |
| 2-methoxy-1-methylethyl acetate | water, intermittent release | / | 6.35 mg/L |
| 2-methoxy-1-methylethyl acetate | marine water | / | 0.064 mg/L |
| 2-methoxy-1-methylethyl acetate | water treatment plant | / | 100 mg/L |
| 2-methoxy-1-methylethyl acetate | fresh water sediment | dry weight | 3.29 mg/kg |
| 2-methoxy-1-methylethyl acetate | marine water sediment | dry weight | 0.329 mg/kg |
| 2-methoxy-1-methylethyl acetate | soil | dry weight | 0.29 mg/kg |
| butan-1-ol | fresh water | / | mg/L |
| butan-1-ol | water, intermittent release | fresh water | mg/L |
| butan-1-ol | marine water | / | mg/L |
| butan-1-ol | water treatment plant | / | mg/L |
| butan-1-ol | fresh water sediment | dry weight | mg/kg |
| butan-1-ol | marine water sediment | dry weight | mg/kg |
| butan-1-ol | soil | dry weight | mg/kg |

## 8.2 Exposure controls

### Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses
Use good personal hygiene practices – wash hands at breaks and when done working with material.

Structural measures to prevent exposure
No information.

Organisational measures to prevent exposure
No information.

Technical measures to prevent exposure
Provide good ventilation and local exhaust in areas with increased concentration.

Personal protective equipment

Eye and face protection
Safety glasses with side protection (BS EN ISO 16321-1:2022).

Hand protection
Protective gloves (EN 374). In case of prolonged exposure, wear protective gloves (BS EN ISO 374).

Appropriate materials

Skin protection
Cotton protective clothing and shoes that cover the entire foot (BS EN ISO 20345:2022).

Respiratory protection
In case of insufficient ventilation wear suitable respiratory protection. Wear suitable protective breathing mask (EN 136) with filter A2-P2 (EN 14387).

Thermal hazards
No information.

Environmental exposure controls

Substance/mixture related measures to prevent exposure
No information.

Instruction measures to prevent exposure
No information.

Organisational measures to prevent exposure
No information.

Technical measures to prevent exposure
No information.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical state
liquid - aerosol

Colour
colourless

Odour
solvent like

Important health, safety and environmental information

| | |
|---|---|
| **Odour threshold** | No information. |
| **Melting point/Freezing point** | No information. |
| **Boiling point or initial boiling point and boiling range** | No information. |
| **Flammability** | No information. |
| **Lower and upper explosion limit** | 2.6 vol % (67-64-1 acetone)<br>26.2 vol % (115-10-6 dimethyl ether) |
| **Flash point** | No information. |
| **Auto-ignition temperature** | 240 °C (115-10-6 dimethyl ether) |
| **Decomposition temperature** | No information. |
| **pH** | No information. |
| **Viscosity** | No information. |
| **Solubility** | Water: insoluble |

| | |
|---|---|
| Partition coefficient | No information. |
| Vapour pressure | 4000 hPa (115-10-6 dimethyl ether) |
| Density and/or relative density | Density: 0.8 g/cm$^3$<br>6.7 lbs/gal |
| Relative vapour density | No information. |
| Particle characteristics | No information. |

### 9.2 OTHER INFORMATION

| | |
|---|---|
| Solids content | 15.5 % |
| Weight organic solvents | 84.3 %<br>667.9 g/l |
| Explosive properties | No information. |

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

No information.

### 10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

### 10.3 Possibility of hazardous reactions

No information.

### 10.4 Conditions to avoid

Protect from heat, direct sunlight, open fire, sparks.

### 10.5 Incompatible materials

No information.

### 10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

(a) Acute toxicity

For components

| Name | Exposure route | Type | Species | Time | value | Method | Remark |
|---|---|---|---|---|---|---|---|
| acetone | oral | $LD_{50}$ | rat | / | 5800 mg/kg | / | / |
| acetone | dermal | $LD_{50}$ | rabbit | / | 20000 mg/kg | / | / |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **dimethyl ether** | Inhalation (gases) | $LC_{50}$ | rat | 4 h | 309 mg/l | / | / |
| **xylene** | dermal | $LD_{50}$ | rabbit | / | 1700 mg/kg | / | / |
| **xylene** | oral | $LD_{50}$ | rat | / | 5000 mg/kg | / | / |
| **xylene** | inhalation | $LC_{50}$ | rat | 4 h | 4500 ppm | / | / |
| **propane** | inhalation | $LD_{50}$ | rat | 4 h | > 20 mg/l | / | / |
| **hydrocarbons, C9, aromatic** | dermal | $LD_{50}$ | rabbit | / | > 3160 mg/kg bw | OECD 402 | / |
| **hydrocarbons, C9, aromatic** | inhalation | $LC_{50}$ | rat | / | > 6193 mg/$m^3$ | OECD 403 | / |
| **butane** | inhalation | $LC_{50}$ | rat | 4 h | 658 mg/l | / | / |
| **isobutane** | inhalation | $LC_{50}$ | rat | 4 h | 658 mg/l | / | / |
| **2-methoxy-1-methylethyl acetate** | oral | $LD_{50}$ | rat | / | 8530 mg/kg | / | / |
| **2-methoxy-1-methylethyl acetate** | inhalation | $LC_{50}$ | rat | 4 h | 35.7 mg/l | / | vapour |
| **2-methoxy-1-methylethyl acetate** | dermal | $LD_{50}$ | rat | / | 5000 mg/kg | / | / |
| **ethylbenzene** | oral | $LD_{50}$ | rat | / | 3500 mg/kg | / | / |
| **ethylbenzene** | dermal | $LD_{50}$ | rabbit | / | 15354 mg/kg | / | / |
| **ethylbenzene** | inhalation | $LC_{50}$ | rat | 4 h | 17.2 mg/l | / | / |
| **butan-1-ol** | oral | $LD_{50}$ | rat | / | 790 mg/kg | / | / |
| **butan-1-ol** | dermal | $LD_{50}$ | rabbit | / | 3400 mg/kg | / | / |

### (b) Skin corrosion/irritation

For components

| Name | Species | Time | result | Method | Remark |
|---|---|---|---|---|---|
| **dimethyl ether** | / | / | May cause frostbite. | / | / |

### (c) Serious eye damage/irritation

For components

| Name | Exposure route | Species | Time | result | Method | Remark |
|---|---|---|---|---|---|---|
| **isobutane** | / | rabbit | / | Non-irritant. | / | / |
| **2-methoxy-1-methylethyl acetate** | / | / | / | May cause irritation. | / | / |

### (d) Respiratory or skin sensitisation

No information.

### (e) (Germ cell) mutagenicity

For components

| Name | Type | Species | Time | result | Method | Remark |
|---|---|---|---|---|---|---|
| **dimethyl ether** | / | / | / | The chemical is not classified as mutagenic. | / | / |
| **dimethyl ether** | in-vitro mutagenicity | / | / | Negative. | OECD 471 | Ames test |
| **dimethyl ether** | in-vitro mutagenicity | Human (lymphocytes) | / | Negative. | cytogenetic test | OECD 473 |
| **dimethyl ether** | in-vivo mutagenicity | *Drosophila melanogaster* | / | Negative. | OECD 477 | / |
| **butane** | / | Bacteria | / | Negative. | OECD 471 (EU B. 12/13) | / |
| **isobutane** | / | Bacteria | / | Negative. | OECD 471 | Bacterial Reverse Mutation Test |

### (f) Carcinogenicity

For components

| Name | Exposure route | Type | Species | Time | value | result | Method | Remark |
|---|---|---|---|---|---|---|---|---|
| dimethyl ether | / | / | / | / | / | Substance is not classified as carcinogenic. | / | / |
| dimethyl ether | inhalation (vapours) | NOAEL | rat | 2 years | 47 mg/l | Animal testing did not show any carcinogenic effects. | OECD 453 | / |
| ethylbenzene | / | / | / | / | / | IARC 2B: Possibly carcinogenic to humans. | / | / |

(g) Reproductive toxicity

For components

| Name | Reproductive toxicity type | Type | Species | Time | value | result | Method | Remark |
|---|---|---|---|---|---|---|---|---|
| dimethyl ether | Reproductive toxicity | inhalation | rat | / | 47 mg/L | Animal testing did not show any effects on fertility. | OECD 452 | / |
| dimethyl ether | Maternal toxicity | NOAEL | rat | / | 5000 ppm | / | / | Inhalation |
| dimethyl ether | Teratogenicity | NOAEL | rat | / | 40000 ppm | / | / | Inhalation |
| dimethyl ether | Developmental toxicity | NOAEL | rat | / | 40000 ppm | / | / | Inhalation |
| dimethyl ether | - | NOAEL | rat | / | 20000 ppm | / | OECD 414 | inhalation (vapor), embryo-fetal development |

Summary of evaluation of the CMR properties

No information.

(h) STOT-single exposure

For components

| Name | Exposure route | Type | Species | Time | Exposure | organ | value | result | Method | Remark |
|---|---|---|---|---|---|---|---|---|---|---|
| butane | - | - | / | / | / | / | / | Symptoms: ataxia, breathing difficulties, drowsiness, unconsciouness, frostbite, disturbed heart rhytm, headaches, cramps, intoxication, dizziness, nausea and vomiting. | / | / |

(i) STOT-repeated exposure

For components

| Name | Exposure route | Type | Species | Time | Exposure | organ | value | result | Method | Remark |
|---|---|---|---|---|---|---|---|---|---|---|
| dimethyl ether | Repeated dose toxicity | NOEL | rat | 2 years | / | / | 47 mg/L | / | OECD 452 | inhalation |

(j) Aspiration hazard

For components

| Name | result | Method | Remark |
|---|---|---|---|
| dimethyl ether | Aspiration hazard: Not Classified. | / | / |

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

### 11.2 Information on other hazards

Endocrine disrupting properties

No information.

Other information

No information.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

Acute (short-term) toxicity

For components

| Name | Type | value | Exposure time | Species | organism | Method | Remark |
|---|---|---|---|---|---|---|---|
| dimethyl ether | $LC_{50}$ | 4.1 mg/L | 96 h | fish | *Poecilia reticulata* | / | Semi-Static system |
| dimethyl ether | $EC_{50}$ | 4.4 mg/L | 48 h | crustacea | *Daphnia magna* | / | static test |
| dimethyl ether | $LC_{50}$ | 755.5 mg/L | 48 h | *Daphnia* | / | ECOSAR | / |
| dimethyl ether | $EC_{50}$ | 154.9 mg/L | 96 h | algae | / | ECOSAR | / |
| dimethyl ether | $EC_{10}$ | > 1600 mg/L | / | bacteria | *Pseudomonas putida* | / | static test |
| xylene | $EC_{50}$ | 7.4 mg/L | 48 h | crustacea | *Daphnia magna* | / | / |
| hydrocarbons, C9, aromatic | $EL_{50}$ | 3.2 mg/L | 48 h | crustacea | *Daphnia magna* | OECD 202 | / |
| hydrocarbons, C9, aromatic | $LL_{50}$ | 9.2 mg/L | 96 h | fish | *Oncorhynchus mykiss* | OECD 203 | / |
| hydrocarbons, C9, aromatic | $ErL_{50}$ | 2.9 mg/L | 72 h | algae | *Pseudokirchneriella subcapitata* | OECD 201 | / |
| 2-methoxy-1-methylethyl acetate | $LC_{50}$ | 100 mg/L | 96 h | fish | *Oncorhynchus mykiss* | / | / |
| 2-methoxy-1-methylethyl acetate | $EC_{50}$ | 500 mg/L | 48 h | crustacea | / | / | / |
| butan-1-ol | $LC_{50}$ | 1376 mg/L | 96 h | fish | *Pimephales promelas* | OECD Guideline 203 (Fish, Acute Toxicity Test) | / |
| butan-1-ol | $EC_{50}$ | 1328 mg/L | 48 h | invertebrates | *Daphnia magna* | OECD 202 | / |
| butan-1-ol | $EC_{50}$ | 225 mg/L | 96 h | Aquatic plants | *Selenastrum capricornutum* | / | / |
| butan-1-ol | $EC_{10}$ | 2476 mg/L | 17 h | bacteria | / | DIN 38412 | / |

Chronic (long-term) toxicity

For components

| Name | Type | value | Exposure time | Species | organism | Method | Remark |
|---|---|---|---|---|---|---|---|
| butan-1-ol | NOEC | 4.1 mg/l | 21 days | aquatic invertebrate | *Daphnia magna* | OECD 211 | / |

### 12.2 Persistence and degradability

### Abiotic degradation, physical- and photo-chemical elimination

No information.

### Biodegradation

For components

| Name | Type | Rate | Time | Evaluation | Method | Remark |
|---|---|---|---|---|---|---|
| dimethyl ether | aerobic | 5 % | 28 days | not readily biodegradable | OECD 301 D | activated sludge |
| ethylbenzene | Water solubility | 1000 - 10000 mg/L | / | quickly biodegradable | / | / |

## 12.3 Bioaccumulative potential

### Partition coefficient

For components

| Name | Media | value | Temperature °C | pH | Concentration | Method |
|---|---|---|---|---|---|---|
| butane | Octanol-water (log Pow) | 2.98 | / | / | / | / |
| ethylbenzene | Octanol-water | 3.6 | / | / | / | / |

### Bioconcentration factor (BCF)

For components

| Name | Species | organism | value | Duration | Evaluation | Method | Remark |
|---|---|---|---|---|---|---|---|
| 2-methoxy-1-methylethyl acetate | organism | / | 0.43 | / | / | / | / |

## 12.4 Mobility in soil

### Known or predicted distribution to environmental compartments

No information.

### Surface tension

No information.

### Adsorption/Desorption

For components

| Name | Type | Criterion | value | Evaluation | Method | Remark |
|---|---|---|---|---|---|---|
| dimethyl ether | Soil | / | / | Moderate mobility in soil. | / | / |

## 12.5 Results of PBT and vPvB assessment

No evaluation.

## 12.6 Endocrine disrupting properties

No information.

## 12.7 Other adverse effects

No information.

## 12.8 Additional information

For components

**dimethyl ether**

Bioaccumulation is not expected. This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This

substance is not considered to be very persistent and very bioaccumulative (vPvB).

**butane**
This substance is not PBT-/vPvB..

**2-methoxy-1-methylethyl acetate**
Water hazard class 1 (Self-assessment): slightly hazardous for water

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Product / Packaging disposal**

**Waste chemical**
Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste.

**Waste codes / waste designations according to LoW**
No information.

**Packaging**
Deliver completely emptied containers to approved waste disposal authorities.

**Waste codes / waste designations according to LoW**
No information.

**Waste treatment-relevant information**
No information.

**Sewage disposal-relevant information**
No information.

**Other disposal recommendations**
No information.

## SECTION 14: TRANSPORT INFORMATION

| ADR/RID | IMDG | IATA | ADN |
|---|---|---|---|
| 14.1 UN number or ID number | | | |
| UN 1950 | UN 1950 | UN 1950 | UN 1950 |
| 14.2 UN proper shipping name | | | |
| AEROSOLS | AEROSOLS | AEROSOLS | AEROSOLS |
| 14.3 Transport hazard class(es) | | | |
| 2 | 2 | 2 | 2 |
|  |  |  |  |
| 14.4 Packing group | | | |
| Not given/not applicable | Not given/not applicable | Not given/not applicable | Not given/not applicable |
| 14.5 Environmental hazards | | | |

| | | | |
|---|---|---|---|
| NO | NO | NO | NO |
| 14.6 Special precautions for user | | | |
| Limited quantities<br>1 L<br>Special provisions<br>190, 327, 344, 625<br>Packing Instructions<br>P207, LP200<br>Special packing provisions<br>PP87, RR6, L2<br>Transport category<br>2<br>Tunnel restriction code<br>(D) | Limited quantities<br>1 L<br>EmS<br>F-D, S-U | Limited Quantity, Packing Instructions (Ltd Qty, Pkg Inst)<br>Y203<br>Limited Quantity, Maximum Net Quantity/Package (Ltd Qty, Max Net Qty/Pkg)<br>30 kg G<br>Packing Instructions (Pkg Inst)<br>203<br>Maximum Net Quantity/Package (Max Net Qty/Pkg)<br>25 kg<br>Special provisions<br>A145, A167, A802 | Limited quantities<br>1 L |
| 14.7 Maritime transport in bulk according to IMO instruments | | | |
| | Goods may not be carried in bulk in bulk containers, containers or vehicles. | | |

## SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

**Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)**
not applicable

**Ingredients according to Regulation (EC) No 648/2004 on detergents**
No information.

**Special instructions**
No information.

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## SECTION 16: OTHER INFORMATION

**Indication of changes**
8.2 Exposure controls

**Key literature references and sources for data**
No information.

**Abbreviations and acronyms**
ATE - Acute Toxicity Estimate
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN - European Committee for Standardisation
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant

CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW – see below)
GES - Generic Exposure Scenario
GHS - Globally Harmonized System
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes
IT - Information Technology
IUCLID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre
Kow - octanol-water partition coefficient
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm)
LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration
PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure
SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure
(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

**List of relevant H phrases**

H220 Extremely flammable gas.
H225 Highly flammable liquid and vapour.
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.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
EUH066 Repeated exposure may cause skin dryness or cracking.