# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

| Version | Revision Date: | Date of last issue: 20.01.2021 | IE:MT:GB / EN |
|---|---|---|---|
| 1.1 | 01.05.2022 | Date of first issue: 20.01.2021 | |

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

### 1.1 Product identifier

Trade name : INK-3801
Other means of identification : VJ-MS31 BLACK

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

Use of the Substance/Mixture : Digital Printing

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

Company : MUTOH Europe nv
Archimedesstraat 13
8400 Oostende, Belgium
Telephone : +32 (0) 59 56 14 00
E-mail address of person responsible for the SDS : sds@mutoh.eu

### 1.4 Emergency telephone number

+32 (0) 59 56 14 00 During normal opening times

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

| | |
|---|---|
| Eye irritation, Category 2 | H319: Causes serious eye irritation. |
| Reproductive toxicity, Category 1B | H360FD: May damage fertility. May damage the unborn child. |

### 2.2 Label elements

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

Hazard pictograms :

Signal word : Danger

Hazard statements : H319 Causes serious eye irritation.
H360FD May damage fertility. May damage the unborn child.

Precautionary statements : P201 Obtain special instructions before use.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

**Hazardous components which must be listed on the label:**

bis(2-(2-methoxyethoxy)ethyl)ether

**Additional Labelling:**
Restricted to professional users.
EUH208 Contains Butyl methacrylate, Methyl methacrylate. May produce an allergic reaction.

### 2.3 Other hazards

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

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Vapours may form explosive mixture with air.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Components**

| Chemical name | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number | Classification | Concentration (% w/w) |
|---|---|---|---|
| Diethylene Glycol Methyl Ethyl Ether | 1002-67-1<br>213-690-5 | Eye Irrit. 2; H319 | >= 40 - < 50 |
| Bis(2-ethoxyethyl) ether | 112-36-7<br>203-963-7 | Eye Irrit. 2; H319 | >= 20 - < 30 |
| bis(2-(2-methoxyethoxy)ethyl)ether | 143-24-8<br>205-594-7<br>603-238-00-9 | Repr. 1B; H360FD | >= 10 - < 20 |
| Propylene carbonate | 108-32-7<br>203-572-1<br>607-194-00-1 | Eye Irrit. 2; H319 | >= 5 - < 10 |
| Gamma-Butyrolactone | 96-48-0<br>202-509-5 | Acute Tox. 4; H302<br>Eye Irrit. 2; H319<br>STOT SE 2; H371<br>STOT SE 3; H336 | >= 1 - < 3 |
| Butyl methacrylate | 97-88-1<br>202-615-1<br>607-033-00-5 | Flam. Liq. 3; H226<br>Skin Irrit. 2; H315<br>Eye Irrit. 2; H319<br>Skin Sens. 1; H317<br>STOT SE 3; H335 | < 1 |
| Methyl methacrylate | 80-62-6<br>201-297-1<br>607-035-00-6 | Flam. Liq. 2; H225<br>Skin Irrit. 2; H315<br>Eye Irrit. 2; H319<br>Resp. Sens. 1; H334<br>Skin Sens. 1; H317<br>STOT SE 3; H335<br>STOT RE 1; H372 | < 1 |

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice : In the case of accident or if you feel unwell, seek medical advice

immediately.
When symptoms persist or in all cases of doubt seek medical advice.

| | | |
|---|---|---|
| Protection of first-aiders | : | First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8). |
| If inhaled | : | If inhaled, remove to fresh air.<br>Get medical attention. |
| In case of skin contact | : | In case of contact, immediately flush skin with soap and plenty of water.<br>Remove contaminated clothing and shoes.<br>Get medical attention.<br>Wash clothing before reuse.<br>Thoroughly clean shoes before reuse. |
| In case of eye contact | : | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.<br>If easy to do, remove contact lens, if worn.<br>Get medical attention. |
| If swallowed | : | If swallowed, DO NOT induce vomiting.<br>Get medical attention.<br>Rinse mouth thoroughly with water. |

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

| | | |
|---|---|---|
| Risks | : | Causes serious eye irritation.<br>May damage fertility. May damage the unborn child. |

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

| | | |
|---|---|---|
| Treatment | : | Treat symptomatically and supportively. |

## SECTION 5: Firefighting measures

**5.1 Extinguishing media**

| | | |
|---|---|---|
| Suitable extinguishing media | : | Water spray<br>Alcohol-resistant foam<br>Carbon dioxide (CO2)<br>Dry chemical |
| Unsuitable extinguishing media | : | High volume water jet |

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

| | | |
|---|---|---|
| Specific hazards during firefighting | : | Do not use a solid water stream as it may scatter and spread fire.<br>Flash back possible over considerable distance.<br>Vapours may form explosive mixtures with air.<br>Exposure to combustion products may be a hazard to health. |
| Hazardous combustion products | : | Carbon oxides<br>Nitrogen oxides (NOx) |

**5.3 Advice for firefighters**

| | | |
|---|---|---|
| Special protective equipment for firefighters | : | In the event of fire, wear self-contained breathing apparatus.<br>Use personal protective equipment. |
| Specific extinguishing methods | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.<br>Use water spray to cool unopened containers. |

Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

## SECTION 6: Accidental release measures

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

Personal precautions : Remove all sources of ignition.
Use personal protective equipment.
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

### 6.2 Environmental precautions

Environmental precautions : Avoid release to the environment.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

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

Methods for cleaning up : Non-sparking tools should be used.
Soak up with inert absorbent material.
Suppress (knock down) gases/vapours/mists with a water spray jet.
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

### 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Technical measures : See Engineering measures under EXPOSURE CONTROLS/ PERSONAL PROTECTION section.

Local/Total ventilation : Use with local exhaust ventilation.

Advice on safe handling : Do not get on skin or clothing.
Do not breathe vapours or spray mist.
Do not swallow.
Do not get in eyes.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Keep container tightly closed.
Keep away from heat and sources of ignition.
Take precautionary measures against static discharges.
Take care to prevent spills, waste and minimize release to the environment.

Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

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

Requirements for storage areas and containers : Keep in properly labelled containers. Store locked up. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Keep away from heat and sources of ignition.

Advice on common storage : Do not store with the following product types:
Strong oxidizing agents
Organic peroxides
Explosives
Gases

**7.3 Specific end use(s)**

Specific use(s) : No data available

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

**8.1.1 Occupational Exposure Limits**

**8.1.1.1 Ireland**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---|---|---|---|---|
| Carbon black | 1333-86-4 | OELV - 8 hrs (TWA) (inhalable fraction) | 3 mg/m3 | IE OEL |
| Further information | Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit value should be used | | | |
| Methyl methacrylate | 80-62-6 | OELV - 8 hrs (TWA) | 50 ppm | IE OEL |
| | | OELV - 15 min (STEL) | 100 ppm | IE OEL |

**8.1.1.2 Malta**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---|---|---|---|---|
| Methyl methacrylate | 80-62-6 | TWA | 50 ppm | MT OEL |
| | | STEL | 100 ppm | MT OEL |

**8.1.1.3 Northern Ireland**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---|---|---|---|---|
| Carbon black | 1333-86-4 | TWA | 3.5 mg/m3 | GB EH40 |
| | | STEL | 7 mg/m3 | GB EH40 |
| Methyl methacrylate | 80-62-6 | TWA | 50 ppm<br>208 mg/m3 | GB EH40 |
| | | STEL | 100 ppm<br>416 mg/m3 | GB EH40 |

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

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|---|---|---|---|---|
| Bis(2-ethoxyethyl) ether | Workers | Inhalation | Long-term systemic effects | 50.5 mg/m3 |
| | Workers | Skin contact | Long-term systemic effects | 3.43 mg/kg bw/day |
| | Consumers | Inhalation | Long-term systemic effects | 5.96 mg/m3 |
| | Consumers | Skin contact | Long-term systemic effects | 1.71 mg/kg bw/day |
| | Consumers | Ingestion | Long-term systemic effects | 1.71 mg/kg bw/day |
| bis(2-(2-methoxy-ethoxy)ethyl)ether | Workers | Inhalation | Long-term systemic effects | 22 mg/m3 |
| | Workers | Skin contact | Long-term systemic effects | 3 mg/kg bw/day |
| | Consumers | Inhalation | Long-term systemic effects | 0.5 µg/m3 |

| | | | | |
|---|---|---|---|---|
| | Consumers | Skin contact | Long-term systemic effects | 0.001 mg/kg bw/day |
| | Consumers | Ingestion | Long-term systemic effects | 0.001 mg/kg bw/day |
| Propylene carbonate | Workers | Inhalation | Long-term systemic effects | 176 mg/m3 |
| | Workers | Inhalation | Long-term local effects | 20 mg/m3 |
| | Workers | Skin contact | Long-term systemic effects | 50 mg/kg bw/day |
| | Consumers | Skin contact | Long-term systemic effects | 25 mg/kg bw/day |
| | Consumers | Inhalation | Long-term local effects | 10 mg/m3 |
| | Consumers | Inhalation | Long-term systemic effects | 43.5 mg/m3 |
| | Consumers | Ingestion | Long-term systemic effects | 25 mg/kg bw/day |
| Gamma-Butyrolactone | Workers | Inhalation | Long-term systemic effects | 130 mg/m3 |
| | Workers | Inhalation | Acute systemic effects | 958 mg/m3 |
| | Workers | Skin contact | Long-term systemic effects | 19 mg/kg bw/day |
| | Consumers | Inhalation | Long-term systemic effects | 28 mg/m3 |
| | Consumers | Inhalation | Acute systemic effects | 340 mg/m3 |
| | Consumers | Skin contact | Long-term systemic effects | 8 mg/kg bw/day |
| | Consumers | Ingestion | Long-term systemic effects | 8 mg/kg bw/day |
| Carbon black | Workers | Inhalation | Long-term local effects | 0.5 mg/m3 |

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

| Substance name | Environmental Compartment | Value |
|---|---|---|
| bis(2-(2-methoxyethoxy)ethyl)ether | Fresh water | 32 mg/l |
| | Freshwater - intermittent | 50 mg/l |
| | Marine water | 3.2 mg/l |
| | Sewage treatment plant | 500 mg/l |
| | Fresh water sediment | 127 mg/kg dry weight (d.w.) |
| | Marine sediment | 12.7 mg/kg dry weight (d.w.) |
| | Soil | 6.7 mg/kg dry weight (d.w.) |
| | Oral (Secondary Poisoning) | 8.32 mg/kg food |
| Propylene carbonate | Sewage treatment plant | 7400 mg/l |
| | Fresh water | 0.9 mg/l |
| | Marine water | 0.09 mg/l |
| | Intermittent use/release | 9 mg/l |
| | Soil | 0.81 mg/kg |
| Gamma-Butyrolactone | Fresh water | 0.056 mg/l |
| | Marine water | 0.0056 mg/l |
| | Intermittent use/release | 0.56 mg/l |
| | Sewage treatment plant | 452 mg/l |
| | Fresh water sediment | 0.24 mg/kg |
| | Marine sediment | 0.02 mg/kg |
| | Soil | 0.0147 mg/kg |
| Carbon black | Fresh water | 1 mg/l |
| | Intermittent use/release | 10 mg/l |
| | Marine water | 0.1 mg/l |
| | Intermittent use/release | 1 mg/l |

**8.2 Exposure controls**

**Engineering measures**

Minimize workplace exposure concentrations.
Use with local exhaust ventilation.

**Personal protective equipment**

Eye protection : Wear the following personal protective equipment:
Safety goggles

Hand protection

Material : Chemical-resistant gloves

Remarks : Choose gloves to protect hands against chemicals depending on

| | | |
|---|---|---|
| | | the concentration and quantity of the hazardous substance and specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Take note that the product is flammable, which may impact the selection of hand protection. Wash hands before breaks and at the end of workday. |
| Skin and body protection | : | Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Wear the following personal protective equipment:<br>Flame retardant antistatic protective clothing, unless assessment demonstrates that the risk of explosive atmospheres or flash fires is low<br>Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc). |
| Respiratory protection | : | Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. |
| Filter type | : | Combined particulates and organic vapour type (A-P) |

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | liquid |
| Colour | : | Black |
| Odour | : | slight |
| Odour Threshold | : | No data available |
| Melting point/freezing point | : | No data available |
| Initial boiling point and boiling range | : | No data available |
| Flammability | : | Not applicable |
| Upper explosion limit | : | No data available |
| Lower explosion limit | : | No data available |
| Flash point | : | >= 70 °C<br>Method: Seta closed cup |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | The substance or mixture is not classified self-reactive. |
| pH | : | No data available |
| Kinematic viscosity | : | No data available |
| Solubility(ies) | | |
| Water solubility | : | soluble |

| | | |
|---|---|---|
| Solubility in other solvents | : | soluble<br>Solvent: organic solvents |
| Partition coefficient: n-octanol/water | : | Not applicable |
| Vapour pressure | : | No data available |
| Density | : | 0.9 - 1.1 g/cm3 |
| Relative vapour density | : | No data available |
| Particle characteristics | : | Not applicable |

**9.2 Other information**

| | | |
|---|---|---|
| Explosives | : | Not explosive |
| Oxidizing properties | : | The substance or mixture is not classified as oxidizing. |
| Evaporation rate | : | No data available |

## SECTION 10: Stability and reactivity

**10.1 Reactivity**
Not classified as a reactivity hazard.

**10.2 Chemical stability**
Stable under normal conditions.

**10.3 Possibility of hazardous reactions**

| | | |
|---|---|---|
| Hazardous reactions | : | Combustible liquid.<br>Vapours may form explosive mixture with air.<br>Can react with strong oxidizing agents. |

**10.4 Conditions to avoid**

| | | |
|---|---|---|
| Conditions to avoid | : | Heat, flames and sparks. |

**10.5 Incompatible materials**

| | | |
|---|---|---|
| Materials to avoid | : | Oxidizing agents |

**10.6 Hazardous decomposition products**
No hazardous decomposition products are known.

## SECTION 11: Toxicological information

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
**Acute toxicity**
Acute toxicity(oral) : Not classified
Acute toxicity(dermal) : Not classified
Acute toxicity(inhalation) : Not classified
**Components:**
Diethylene Glycol Methyl Ethyl Ether:
LD50 oral rat : > 2000 mg/kg
LD50 dermal rat : > 2000 mg/kg
LC50 inhalation - rat : > 5.14 mg/l/4h

Bis(2-ethoxyethyl) ether:
LD50 oral rat : 4970 mg/kg
Bis(2-(2-methoxyethoxy)ethyl) ether:
LD50 oral rat : 5140 mg/kg

Propylene carbonate:
LD50 oral rat : > 5000 mg/kg
LD50 dermal rat : >= 2000 mg/kg

Carbon black:
LD50 oral rat : > 15400 mg/kg
LC50 inhalation - rat : > 4.6 mg/l/4h

Gamma-Butyrolactone:
LD50 oral rat : 1540 mg/kg
LC50 inhalation - rat : > 5100 mg/m3 (Exposure time: 4h)

Butyl methacrylate:
LD50 oral rat : 16 g/kg
LD50 dermal rabbit : 10181 mg/kg
LC50 inhalation - rat : 4910 ppm/4h

Methyl methacrylate:
LD50 oral rat : 7900 mg/kg
LC50 inhalation - rat : 4632 ppm/4h

**Skin corrosion/irritation**
Not classified

**Serious eye damage/eye irritation**
Causes serious eye irritation.

**Respiratory or skin sensitisation**
Not classified

**Germ cell mutagenicity**
Not classified

**Carcinogenicity**
Not classified
**Components:**
Carbon black:
IARC group : 2B - Possibly carcinogenic to humans

Gamma-Butyrolactone:
IARC group : 3 - Not classifiable

Methyl methacrylate:
IARC group : 3 - Not classifiable

**Reproductive toxicity**
May damage fertility. May damage the unborn child.

**STOT - single exposure**
Not classified
**Components:**
Gamma-Butyrolactone:
STOT - single exposure : May cause damage to organs. May cause drowsiness or dizziness.

Butyl methacrylate:
STOT - single exposure : May cause respiratory irritation.

Methyl methacrylate:
STOT - single exposure : May cause respiratory irritation.

**STOT - repeated exposure**
Not classified
**Components:**
Methyl methacrylate:
STOT - repeated exposure : Causes damage to organs through prolonged or repeated exposure.

**Aspiration toxicity**
Not classified

**11.2 Information on other hazards**
**Endocrine disrupting properties**
**Product:**
Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**Other information**
No data available

## SECTION 12: Ecological information

**12.1 Toxicity**
Ecology - general : The product is not considered harmful to aquatic organisms nor to cause longterm adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Not classified
**Components:**
Propylene carbonate:
LC50 - Fish : > 1000 mg/l Cyprinus carpio
EC50 - Crustacea : > 1000 mg/l Daphnia magna
EC50 72h - Algae : > 929 mg/l Pseudokirchneriella subcapitata

Carbon black:
LC50 - Fish : > 1000 mg/l

Gamma-Butyrolactone:
EC50 - Crustacea : > 500mg/l /48h Daphnia magna
EC50 72h - Algae : 360 mg/l/Desmodesmus subspicatus

Butyl methacrylate:
LC50 - Fish : 11 mg/l/96 h - Pimephales promelas [flow-through]
EC50 - Crustacea : 32 mg/l/48 h -Daphnia magna
EC50 96h - Algae : 57 mg/l Pseudokirchneriella subcapitata

Methyl methacrylate:
LC50 - Fish : 243 – 275 mg/l /96 h - Pimephales promelas [flow-through]
EC50 - Crustacea : 69 mg/l /48 h - Daphnia magna
EC50 96h - Algae : 170 mg/l Pseudokirchneriella subcapitata

**12.2 Persistence and degradability**
No additional information available

**12.3 Bioaccumulative potential**
**Components:**
Propylene carbonate:
Partition coefficient n-octanol/water (Log Pow) : 0.48 (at 25 °C)

Gamma-Butyrolactone:
Partition coefficient n-octanol/water (Log Pow) : -0.566

Butyl methacrylate:
Partition coefficient n-octanol/water (Log Pow) : 2.26

Methyl methacrylate:
Partition coefficient n-octanol/water (Log Pow) : 0.7

**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. |

**12.6 Endocrine disrupting properties**
**Product:**

| | | |
|---|---|---|
| Assessment | : | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |

**12.7 Other adverse effects**
No data available

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods**

| | | |
|---|---|---|
| Product | : | Dispose of in accordance with local regulations.<br>According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.<br>Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities. |
| Contaminated packaging | : | Empty containers should be taken to an approved waste handling site for recycling or disposal.<br>Empty containers retain residue and can be dangerous.<br>Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death.<br>If not otherwise specified: Dispose of as unused product. |
| Waste Code | : | 08 03 12, waste ink containing hazardous substances |

## SECTION 14: Transport information

**14.1 UN number or ID number**
Not regulated as dangerous goods

**14.2 UN proper shipping name**
Not regulated as dangerous goods

**14.3 Transport hazard class(es)**
Not regulated as dangerous goods

**14.4 Packing group**
Not regulated as dangerous goods

**14.5 Environmental hazards**
Not regulated as dangerous goods

**14.6 Special precautions for user**
Not applicable

**14.7 Maritime transport in bulk according to IMO instruments**
Remarks : Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

| | | |
|---|---|---|
| REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). | : | bis(2-(2-methoxyethoxy)ethyl) ether |
| REACH - List of substances subject to authorisation (Annex XIV) | : | Not applicable |
| Regulation (EC) No 1005/2009 on substances that deplete the ozone layer | : | Not applicable |
| Regulation (EU) 2019/1021 on persistent organic pollutants (recast): | | 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:<br>Number on list 3 |

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

**Other regulations:**
Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

**15.2 Chemical safety assessment**
A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

Other information : Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

**Full text of H-Statements**

| | | |
|---|---|---|
| H225 | : | Highly flammable liquid and vapour. |
| H226 | : | Flammable liquid and vapour. |
| H302 | : | Harmful if swallowed. |
| H315 | : | Causes skin irritation. |
| H317 | : | May cause an allergic skin reaction. |
| H319 | : | Causes serious eye irritation. |
| H334 | : | May cause allergy or asthma symptoms or breathing difficulties if |

| | | |
|---|---|---|
| | | inhaled. |
| H335 | : | May cause respiratory irritation. |
| H336 | : | May cause drowsiness or dizziness. |
| H360FD | : | May damage fertility. May damage the unborn child. |
| H371 | : | May cause damage to organs. |
| H372 | : | Causes damage to organs through prolonged or repeated exposure. |

**Full text of other abbreviations**

| | | |
|---|---|---|
| Acute Tox. | : | Acute toxicity |
| Eye Irrit. | : | Eye irritation |
| Flam. Liq. | : | Flammable liquids |
| Repr. | : | Reproductive toxicity |
| Resp. Sens. | : | Respiratory sensitisation |
| Skin Irrit. | : | Skin irritation |
| Skin Sens. | : | Skin sensitisation |
| STOT RE | : | Specific target organ toxicity - repeated exposure |
| STOT SE | : | Specific target organ toxicity - single exposure |
| IE OEL | : | Ireland. List of Chemical Agents and Occupational Exposure Limit Values - Schedule 1 |
| IE OEL / OELV - 8 hrs (TWA) | : | Occupational exposure limit value (8-hour reference period) |
| IE OEL / OELV - 15 min (STEL) | : | Occupational exposure limit value (15-minute reference period) |
| MT OEL / TWA | : | Long term exposure limit |
| MT OEL / STEL | : | Occupational exposure limit value Short-term, 15 minute |
| MT OEL | : | Malta. Occupational Exposure Limits |
| GB EH40 | : | UK. EH40 WEL - Workplace Exposure Limits |
| GB EH40 / TWA | : | Long-term exposure limit (8-hour TWA reference period) |
| GB EH40 / STEL | : | Short-term exposure limit (15-minute reference period) |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

**Further information**

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| Sources of key data used to compile the Safety Data Sheet | : | Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/ |

| **Classification of the mixture:** | | **Classification procedure:** |
|---|---|---|
| Eye Irrit. 2 | H319 | Calculation method |
| Repr. 1B | H360FD | Calculation method |

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.