# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Galvanet conductive silver laquer



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

### 1.1. Product identifier

Galvanet conductive silver laquer UFI: 0W53-70WC-T00S-VG81

**Product code:**

11144

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

**Use of the substance/mixture**

Paints and varnishes
Conductive silver laquer
Reserved for industrial and professional use.

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

| | | |
|---|---|---|
| Company name: | DFS-DIAMON GmbH | |
| Street: | Ländenstr. 1 | |
| Place: | D-93339 Riedenburg | |
| Telephone: | +49 (0)9442 9189 0 | Telefax: +49 (0)9442 9189 37 |
| Contact person: | Andreas Beck | |
| e-mail: | andreas.beck@dfs-diamon.de | |
| Internet: | http://www.dfs-diamon.de | |

### 1.4. Emergency telephone number:

24 hour Emergency Contacts: +49 (0) 700 24112112 (DFS) / +1 872 5888271

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Regulation (EC) No. 1272/2008**

Hazard categories:
Flammable liquid: Flam. Liq. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Specific target organ toxicity - single exposure: STOT SE 3
Hazardous to the aquatic environment: Aquatic Acute 1
Hazardous to the aquatic environment: Aquatic Chronic 1
Hazard Statements:
Highly flammable liquid and vapour.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

### 2.2. Label elements

**Regulation (EC) No. 1272/2008**

**Hazard components for labelling**

1-methoxy-2-propanol; monopropylene glycol methyl ether
ethyl acetate

**Signal word:** Danger

**Pictograms:**



**Hazard statements**

H225 Highly flammable liquid and vapour.

| | |
|---|---|
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |
| H410 | Very toxic to aquatic life with long lasting effects. |

**Precautionary statements**

| | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. |
| P391 | Collect spillage. |
| P403+P235 | Store in a well-ventilated place. Keep cool. |
| P501 | Dispose of contents / container in accordance with local regulations |

### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

**Hazardous components**

| CAS No | Chemical name | | | Quantity |
|---|---|---|---|---|
| | EC No | Index No | REACH No | |
| | GHS Classification | | | |
| 64-17-5 | ethanol, ethyl alcohol | | | 35 - < 40 % |
| | 200-578-6 | 603-002-00-5 | 01-2119457610-43 | |
| | Flam. Liq. 2, Eye Irrit. 2; H225 H319 | | | |
| 7440-22-4 | silver powder | | | 30 - < 35 % |
| | 231-131-3 | | 01-2119555669-21 | |
| | Aquatic Acute 1, Aquatic Chronic 1; H400 H410 | | | |
| 107-98-2 | 1-methoxy-2-propanol; monopropylene glycol methyl ether | | | 25 - < 30 % |
| | 203-539-1 | 603-064-00-3 | | |
| | Flam. Liq. 3, STOT SE 3; H226 H336 | | | |
| 141-78-6 | ethyl acetate | | | 5 - < 10 % |
| | 205-500-4 | 607-022-00-5 | | |
| | Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066 | | | |
| 78-93-3 | butanone; ethyl methyl ketone | | | < 1 % |
| | 201-159-0 | 606-002-00-3 | 01-2119457290-43 | |
| | Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066 | | | |

Full text of H and EUH statements: see section 16.

**Specific concentration limits and M-factors**

| CAS No | EC No | Chemical name | Quantity |
|---|---|---|---|
| | Specific concentration limits and M-factors | | |
| 64-17-5 | 200-578-6 | ethanol, ethyl alcohol | 35 - < 40 % |
| | Eye Irrit. 2; H319: >= 50 - 100 | | |
| 7440-22-4 | 231-131-3 | silver powder | 30 - < 35 % |
| | M akut; H400: M=1000 | | |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information**

When in doubt or if symptoms are observed, get medical advice.

**After inhalation**

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. If experiencing respiratory symptoms: Call a doctor.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

**After contact with eyes**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing.

**After ingestion**

Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person or a person with cramps. Seek medical advice immediately.

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

No information available.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

**5.1. Extinguishing media**

**Suitable extinguishing media**

Water spray jet, Carbon dioxide (CO2), Foam, Extinguishing powder.
Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

Full water jet

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

Highly flammable, Vapours can form explosive mixtures with air. Vapours are heavier than air, spread along floors and form explosive mixtures with air.
In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx), Pyrolysis products, toxic (Metal oxide smoke, toxic)

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus. Full protection suit.

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

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

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Evacuate area.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Danger of explosion

**6.3. Methods and material for containment and cleaning up**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

### 6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Advice on safe handling**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Never use pressure to empty container.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air. Vapours are heavier than air, spread along floors and form explosive mixtures with air.

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

**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Hints on joint storage**

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

**Further information on storage conditions**

Keep away from heat. Protect against direct sunlight.
storage temperature: 15 - 30°C

### 7.3. Specific end use(s)

Conductive silver laquer
Reserved for industrial and professional use.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Exposure limits (EH40)**

| CAS No | Substance | ppm | mg/m³ | fibres/ml | Category | Origin |
|---|---|---|---|---|---|---|
| 107-98-2 | 1-Methoxypropan-2-ol | 100 | 375 | | TWA (8 h) | WEL |
| | | 150 | 560 | | STEL (15 min) | WEL |
| 78-93-3 | Butan-2-one (methyl ethyl ketone) | 200 | 600 | | TWA (8 h) | WEL |
| | | 300 | 899 | | STEL (15 min) | WEL |
| 64-17-5 | Ethanol | 1000 | 1920 | | TWA (8 h) | WEL |
| 141-78-6 | Ethyl acetate | 200 | 734 | | TWA (8 h) | WEL |
| | | 400 | 1468 | | STEL (15 min) | WEL |
| 7440-22-4 | Silver, metallic | - | 0.1 | | TWA (8 h) | WEL |

**Biological Monitoring Guidance Values (EH40)**

| CAS No | Substance | Parameter | Value | Test material | Sampling time |
|---|---|---|---|---|---|
| 78-93-3 | Butan-2-one | butan-2-one | 70 µmol/L | urine | Post shift |

**DNEL/DMEL values**

| CAS No | Substance | | | |
|---|---|---|---|---|
| DNEL type | | Exposure route | Effect | Value |
| 64-17-5 | ethanol, ethyl alcohol | | | |
| Worker DNEL, long-term | | inhalation | systemic | 950 mg/m³ |
| Worker DNEL, acute | | inhalation | local | 1900 mg/m³ |
| Worker DNEL, long-term | | dermal | systemic | 343 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | systemic | 114 mg/m³ |
| Consumer DNEL, acute | | inhalation | local | 950 mg/m³ |
| Consumer DNEL, long-term | | dermal | systemic | 206 mg/kg bw/day |
| Consumer DNEL, acute | | oral | systemic | 87 mg/kg bw/day |
| 78-93-3 | butanone; ethyl methyl ketone | | | |
| Worker DNEL, long-term | | inhalation | systemic | 600 mg/m³ |
| Worker DNEL, long-term | | dermal | systemic | 1161 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | systemic | 106 mg/m³ |
| Consumer DNEL, long-term | | dermal | systemic | 412 mg/kg bw/day |
| Consumer DNEL, long-term | | oral | systemic | 31 mg/kg bw/day |

**PNEC values**

| CAS No | Substance | |
|---|---|---|
| Environmental compartment | | Value |
| 64-17-5 | ethanol, ethyl alcohol | |
| Freshwater | | 0,96 mg/l |
| Marine water | | 0,79 mg/l |
| Freshwater sediment | | 3,6 mg/kg |
| Marine sediment | | 2,9 mg/kg |
| Secondary poisoning | | 0,72 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 580 mg/l |
| Soil | | 0,63 mg/kg |
| 78-93-3 | butanone; ethyl methyl ketone | |
| Freshwater | | 55,8 mg/l |
| Marine water | | 55,8 mg/l |
| Micro-organisms in sewage treatment plants (STP) | | 709 mg/l |
| Freshwater sediment | | 284,74 mg/kg |
| Marine sediment | | 284,7 mg/kg |
| Soil | | 22,5 mg/kg |
| Secondary poisoning | | 1000 mg/kg |

## 8.2. Exposure controls






**Appropriate engineering controls**

Provide adequate ventilation as well as local exhaustion at critical locations.

**Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary . When using do not eat or drink. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

**Eye/face protection**

Suitable eye protection: goggles. Tightly sealed safety glasses. (DIN EN 166)

**Hand protection**

Wear suitable gloves tested to EN374.

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Flame-retardant protective clothing. Wear anti-static footwear and clothing

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.
Respiratory protection necessary at: exceeding exposure limit values

**Environmental exposure controls**

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state: | Liquid |
| Colour: | silver |
| Odour: | Solvent |
| Odour threshold: | not determined |

| | |
|---|---|
| pH-Value: | not determined |

**Changes in the physical state**

| | |
|---|---|
| Melting point: | not determined |
| Initial boiling point and boiling range: | (Ethanol) 78 °C |
| Flash point: | (Ethanol) 12 °C |

**Flammability**

| | |
|---|---|
| Solid: | not applicable |
| Gas: | not applicable |

**Explosive properties**

Vapours can form explosive mixtures with air.

| | |
|---|---|
| Lower explosion limits: | 1,8 vol. % |
| Upper explosion limits: | 15 vol. % |
| Ignition temperature: | 287 °C |

**Auto-ignition temperature**

| | |
|---|---|
| Solid: | not applicable |
| Gas: | not applicable |
| Decomposition temperature: | not determined |

**Oxidizing properties**

Not oxidising.

| | |
|---|---|
| Vapour pressure: (at 20 °C) | 58 hPa |
| Vapour pressure: (at 50 °C) | 293 hPa |
| Density (at 20 °C): | not determined |
| Water solubility: | easily soluble |

**Solubility in other solvents**

not determined

| | |
|---|---|
| Partition coefficient: | not determined |
| Viscosity / dynamic: | not determined |
| Viscosity / kinematic: | not determined |
| Vapour density: | not determined |
| Evaporation rate: | not determined |

**9.2. Other information**

No information available.

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

Highly flammable, Ignition hazard.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Vapours can form explosive mixtures with air.

**10.4. Conditions to avoid**

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Keep away from heat. Protect against direct sunlight.

**10.5. Incompatible materials**

Oxidising agent. Pyrophoric or self-heating substances.

**10.6. Hazardous decomposition products**

In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx), Pyrolysis products, toxic (Metal oxide smoke, toxic)

## SECTION 11: Toxicological information

**11.1. Information on toxicological effects**

**Acute toxicity**

Based on available data, the classification criteria are not met.

| CAS No | Chemical name | | | | |
|---|---|---|---|---|---|
| | Exposure route | Dose | Species | Source | Method |
| 64-17-5 | ethanol, ethyl alcohol | | | | |
| | oral | LD50 10470 mg/kg | Rat | Manufacturer | |
| | inhalation (4 h) vapour | LC50 117 mg/l | Rat | Manufacturer | |
| 107-98-2 | 1-methoxy-2-propanol; monopropylene glycol methyl ether | | | | |
| | oral | LD50 > 5000 mg/kg | Rat | Manufacturer | |
| | dermal | LD50 11000 mg/kg | Rabbit | Manufacturer | |
| 141-78-6 | ethyl acetate | | | | |
| | oral | LD50 5620 mg/kg | Rat | Manufacturer | |
| | dermal | LD50 > 18000 mg/kg | Rabbit | Manufacturer | |
| 78-93-3 | butanone; ethyl methyl ketone | | | | |
| | oral | LD50 2193 mg/kg | Rat | OECD 423 | |
| | dermal | LD50 6480 mg/kg | Rabbit | GESTIS | |

**Irritation and corrosivity**

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

**STOT-single exposure**

May cause drowsiness or dizziness. (1-methoxy-2-propanol; monopropylene glycol methyl ether)

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

**12.1. Toxicity**

Very toxic to aquatic organisms.

Very toxic to aquatic life with long lasting effects.

| CAS No | Chemical name | | | | | |
|---|---|---|---|---|---|---|
| | Aquatic toxicity | Dose | [h] \| [d] | Species | Source | Method |
| 64-17-5 | ethanol, ethyl alcohol | | | | | |
| | Acute fish toxicity | LC50 14200 mg/l | 96 h | Pimephales promelas (fathead minnow) | Manufacturer | |
| | Acute crustacea toxicity | EC50 9268 - 14221 mg/l | 48 h | Daphnia magna | Manufacturer | |
| 7440-22-4 | silver powder | | | | | |
| | Acute crustacea toxicity | EC50 0,00022 mg/l | 48 h | Daphnia magna (Big water flea) | Manufacturer | |
| 107-98-2 | 1-methoxy-2-propanol; monopropylene glycol methyl ether | | | | | |
| | Acute fish toxicity | LC50 4600-10000 mg/l | 96 h | Leuciscus idus (golden orfe) | Manufacturer | |
| | Acute algae toxicity | ErC50 > 1000 mg/l | 72 h | Selenastrum capricornutum | Manufacturer | |
| | Acute crustacea toxicity | EC50 > 500 mg/l | 48 h | Daphnia magna (Big water flea) | Manufacturer | |
| 141-78-6 | ethyl acetate | | | | | |
| | Acute fish toxicity | LC50 > 200 mg/l | 96 h | Piscis | Manufacturer | |
| | Acute algae toxicity | ErC50 > 2000 mg/l | 96 h | Algae | Manufacturer | |
| | Acute crustacea toxicity | EC50 > 150 mg/l | 48 h | Crustacea | Manufacturer | |
| 78-93-3 | butanone; ethyl methyl ketone | | | | | |
| | Acute fish toxicity | LC50 2993 mg/l | 96 h | Pimephales promelas (fathead minnow) | OECD 203 | |
| | Acute algae toxicity | ErC50 2029 mg/l | 96 h | Selenastrum capricornutum | OECD 201 | |
| | Acute crustacea toxicity | EC50 308 mg/l | 48 h | Daphnia magna (Big water flea) | OECD 202 | |
| | Fish toxicity | NOEC 1170 mg/l | 4 d | Pimephales promelas (fathead minnow) | OECD 203 | |
| | Algae toxicity | NOEC 1240 mg/l | 4 d | Selenastrum capricornutum | OECD 201 | |
| | Crustacea toxicity | NOEC 68 mg/l | 2 d | Daphnia magna (Big water flea) | OECD 202 | |

**12.2. Persistence and degradability**

The product has not been tested.

| CAS No | Chemical name | | | |
|---|---|---|---|---|
| | Method | Value | d | Source |
| | Evaluation | | | |
| 64-17-5 | ethanol, ethyl alcohol | | | |
| | OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C | 97 % | 28 | IUCLID |
| | Readily biodegradable (according to OECD criteria). | | | |
| 78-93-3 | butanone; ethyl methyl ketone | | | |
| | | 98 % | 28 | OECD 301D/ EEC 92/69/V, C.4-E |
| | Readily biodegradable (according to OECD criteria). | | | |

**12.3. Bioaccumulative potential**

The product has not been tested.

**Partition coefficient n-octanol/water**

| CAS No | Chemical name | Log Pow |
|---|---|---|
| 64-17-5 | ethanol, ethyl alcohol | -0,31 |
| 107-98-2 | 1-methoxy-2-propanol; monopropylene glycol methyl ether | -0,437 |
| 78-93-3 | butanone; ethyl methyl ketone | 0,3 |

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The product has not been tested.

**12.6. Other adverse effects**

No information available.

**Further information**

Avoid release to the environment.

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

**Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**List of Wastes Code - residues/unused products**

080117 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; wastes from paint or varnish removal containing organic solvents or other hazardous substances; hazardous waste

**List of Wastes Code - used product**

080117 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; wastes from paint or varnish removal containing organic solvents or other hazardous substances; hazardous waste

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself. Dispose of waste according to applicable legislation.

## SECTION 14: Transport information

**Land transport (ADR/RID)**

| | |
|---|---|
| **14.1. UN number:** | UN 1263 |
| **14.2. UN proper shipping name:** | PAINT |
| **14.3. Transport hazard class(es):** | 3 |
| **14.4. Packing group:** | II |
| Hazard label: | 3 |




| | |
|---|---|
| Classification code: | F1 |
| Special Provisions: | 163 367 640D 650 |

| | |
|---|---|
| Limited quantity: | 5 L |
| Excepted quantity: | E2 |
| Transport category: | 2 |
| Hazard No: | 33 |
| Tunnel restriction code: | D/E |

**Inland waterways transport (ADN)**

| | |
|---|---|
| **14.1. UN number:** | UN 1263 |
| **14.2. UN proper shipping name:** | Paint |
| **14.3. Transport hazard class(es):** | 3 |
| **14.4. Packing group:** | II |
| Hazard label: | 3 |




| | |
|---|---|
| Classification code: | F1 |
| Special Provisions: | 163 367 640D 650 |
| Limited quantity: | 5 L |
| Excepted quantity: | E2 |

**Marine transport (IMDG)**

| | |
|---|---|
| **14.1. UN number:** | UN 1263 |
| **14.2. UN proper shipping name:** | PAINT |
| **14.3. Transport hazard class(es):** | 3 |
| **14.4. Packing group:** | II |
| Hazard label: | 3 |




| | |
|---|---|
| Marine pollutant: | Yes |
| Special Provisions: | 163, 367 |
| Limited quantity: | 5 L |
| Excepted quantity: | E2 |
| EmS: | F-E, S-E |

**Air transport (ICAO-TI/IATA-DGR)**

| | |
|---|---|
| **14.1. UN number:** | UN 1263 |
| **14.2. UN proper shipping name:** | PAINT |
| **14.3. Transport hazard class(es):** | 3 |
| **14.4. Packing group:** | II |
| Hazard label: | 3 |




| | |
|---|---|
| Special Provisions: | A3 A72 A192 |
| Limited quantity Passenger: | 1 L |
| Passenger LQ: | Y341 |
| Excepted quantity: | E2 |
| IATA-packing instructions - Passenger: | 353 |
| IATA-max. quantity - Passenger: | 5 L |
| IATA-packing instructions - Cargo: | 364 |

IATA-max. quantity - Cargo: 60 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: silver powder

**14.6. Special precautions for user**

Warning: flammable liquids.

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

not applicable

## SECTION 15: Regulatory information

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40

| | |
|---|---|
| 2010/75/EU (VOC): | < 68% |
| 2004/42/EC (VOC): | < 68 % |
| Information according to 2012/18/EU (SEVESO III): | E1 Hazardous to the Aquatic Environment |
| Additional information: | P5c |

**National regulatory information**

| | |
|---|---|
| Employment restrictions: | Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). |
| Water hazard class (D): | 3 - strongly hazardous to water |

**15.2. Chemical safety assessment**

For the following substances of this mixture a chemical safety assessment has been carried out:
ethanol, ethyl alcohol
butanone; ethyl methyl ketone

## SECTION 16: Other information

**Changes**

This data sheet contains changes from the previous version in section(s):
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

**Abbreviations and acronyms**

CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road )
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
IMDG: International Maritime Code for Dangerous Goods
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see table at http://abbrev.esdscom.eu

**Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]**

| Classification | Classification procedure |
|---|---|
| Flam. Liq. 2; H225 | On basis of test data |
| Eye Irrit. 2; H319 | Calculation method |
| STOT SE 3; H336 | Calculation method |
| Aquatic Acute 1; H400 | Calculation method |
| Aquatic Chronic 1; H410 | Calculation method |

**Relevant H and EUH statements (number and full text)**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*