

**Safety Data Sheet**

according to UK REACH Regulation

**ALEXANDER's Staining Solution**

Revision date: 18.12.2023

Product code: 13441.xxxxx

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

ALEXANDER's Staining Solution

UFI: 4Y66-5132-T001-WUQ7

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

laboratory reagent. Intended for scientific research and development.

**Uses advised against**

Any non-intended use.

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

|                 |                                    |                                   |
|-----------------|------------------------------------|-----------------------------------|
| Company name:   | MORPHISTO GmbH                     |                                   |
| Street:         | Schumannstr. 144                   |                                   |
| Place:          | D-63069 Offenbach                  |                                   |
| Telephone:      | +49 (0) 69 / 400 3019-60           | Telefax: +49 (0) 69 / 400 3019-64 |
| E-mail:         | info@morphisto.de                  |                                   |
| Contact person: | Morphisto GmbH                     |                                   |
| E-mail:         | gefahrstoffmanagement@morphisto.de |                                   |
| Internet:       | http://www.morphisto.de            |                                   |

**1.4. Emergency telephone number:**

Morphisto GmbH, Tel: +49(0)69 400 3019-60, Mo-Fr.: 09-16 Uhr

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**

This mixture is not classified as hazardous in accordance with GB CLP Regulation.

**2.2. Label elements****GB CLP Regulation****Special labelling of certain mixtures**

EUH210 Safety data sheet available on request.

**2.3. Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain any components that are considered to be hazardous according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in amounts of 0.1 % or more have endocrine disrupting properties. Toxicological information: The substance/mixture does not contain any components that are to be classified according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1 % or more have endocrine disrupting properties.

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

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#### Hazardous components

| CAS No  | Chemical name                          |              |                  | Quantity   |
|---------|--|--------------|------------------|------------|
|         | EC No                                  | Index No     | REACH No         |            |
|         | Classification (GB CLP Regulation)     |              |                  |            |
| 64-17-5 | Ethanol                                |              |                  | 5 - < 10 % |
|         | 200-578-6                              | 603-002-00-5 | 01-2119457610-43 |            |
|         | Flam. Liq. 2, Eye Irrit. 2; H225 H319  |              |                  |            |
| 64-19-7 | Acetic acid%                           |              |                  | 1 - < 5 %  |
|         | 200-580-7                              | 607-002-00-6 | 01-2119475328-30 |            |
|         | Flam. Liq. 3, Skin Corr. 1A; H226 H314 |              |                  |            |

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

#### Specific Conc. Limits, M-factors and ATE

| CAS No  | EC No     | Chemical name  | Quantity   |
|---------|-----------|--|------------|
|         |           | Specific Conc. Limits, M-factors and ATE   |            |
| 64-17-5 | 200-578-6 | Ethanol  | 5 - < 10 % |
|         |           | inhalation: LC50 = 124,7 mg/l (vapours); dermal: LD50 = >2000 mg/kg; oral: LD50 = >5000 mg/kg Eye Irrit. 2; H319: >= 50 - 100  |            |
| 64-19-7 | 200-580-7 | Acetic acid%   | 1 - < 5 %  |
|         |           | inhalation: LC50 = >40 mg/l (vapours); oral: LD50 = 3530 mg/kg Skin Corr. 1A; H314: >= 90 - 100 Skin Corr. 1B; H314: >= 25 - < 90 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25 |            |

#### Further Information

This product contains no substances of very high concern (SVHC) (>0,1%) which are included in the Candidate List according to Article 59 of REACH.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). May cause allergic reactions. In case of an allergic reaction: Remove casualty to fresh air and keep warm and at rest. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

##### After inhalation

Provide fresh air. In case of respiratory tract irritation, consult a physician. If breathing is irregular or stopped, administer artificial respiration. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

##### After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

##### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

##### After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

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

No information available.

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#### **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**

Co-ordinate fire-fighting measures to the fire surroundings. Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. alcohol resistant foam. Atomized water.

##### **Unsuitable extinguishing media**

High power water jet.

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

Non-flammable. In case of fire may be liberated: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

#### **5.3. Advice for firefighters**

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

##### **Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

### SECTION 6: Accidental release measures

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

##### **General advice**

Wear personal protection equipment (refer to section 8). Do not breathe gas/fumes/vapour/spray.

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Discharge into the environment must be avoided.

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

##### **For cleaning up**

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

##### **Other information**

Clean contaminated objects and areas thoroughly observing environmental regulations.

#### **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**

No special measures are necessary. The usual precautions for handling chemicals should be considered. Do not breathe gas/fumes/vapour/spray. Wear suitable protective clothing.

##### **Advice on protection against fire and explosion**

Usual measures for fire prevention.

##### **Advice on general occupational hygiene**

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Always close containers tightly after the removal of product. Take off contaminated clothing and wash it before reuse. Draw up and observe skin protection programme.

##### **Further information on handling**

Always close containers tightly after the removal of product. Personal protective equipment must be

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determined according to the quantity and concentration of hazardous substances at the workplace. Wear solvent-resistant protective clothing. Wash hands and face before breaks and after work and take a shower if necessary. Draw up and observe skin protection programme.

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

##### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

##### Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff Ammonium nitrate.

##### Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Recommended storage temperature: 15-25 °C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

#### 7.3. Specific end use(s)

See section 1.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

| CAS No  | Substance                         | ppm  | mg/m <sup>3</sup> | fibres/ml | Category      | Origin |
|---------|-----------------------------------|------|-------------------|-----------|---------------|--------|
| 64-19-7 | Acetic acid                       | 10   | 25                |           | TWA (8 h)     | WEL    |
|         |                                   | 20   | 50                |           | 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    |
| 56-81-5 | Glycerol, mist                    | -    | 10                |           | 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    |

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**DNEL/DMEL values**

| CAS No                   | Substance      |          |                        |
|--------------------------|----------------|----------|------------------------|
| DNEL type                | Exposure route | Effect   | Value                  |
| 56-81-5                  | Glycerol       |          |                        |
| Worker DNEL, long-term   | inhalation     | local    | 56 mg/m <sup>3</sup>   |
| 64-17-5                  | Ethanol        |          |                        |
| Worker DNEL, acute       | inhalation     | local    | 1900 mg/m <sup>3</sup> |
| Worker DNEL, long-term   | dermal         | systemic | 343 mg/kg bw/day       |
| Worker DNEL, long-term   | inhalation     | systemic | 950 mg/m <sup>3</sup>  |
| Consumer DNEL, acute     | inhalation     | local    | 950 mg/m <sup>3</sup>  |
| Consumer DNEL, long-term | dermal         | systemic | 206 mg/kg bw/day       |
| Consumer DNEL, long-term | inhalation     | systemic | 114 mg/m <sup>3</sup>  |
| Consumer DNEL, long-term | oral           | systemic | 87 mg/kg bw/day        |
| 64-19-7                  | Acetic acid%   |          |                        |
| Worker DNEL, long-term   | inhalation     | local    | 25 mg/m <sup>3</sup>   |
| Worker DNEL, acute       | inhalation     | local    | 25 mg/m <sup>3</sup>   |
| Consumer DNEL, long-term | inhalation     | local    | 25 mg/m <sup>3</sup>   |
| Consumer DNEL, acute     | inhalation     | local    | 25 mg/m <sup>3</sup>   |
| 78-93-3                  | butanone       |          |                        |
| Worker DNEL, long-term   | inhalation     | systemic | 600 mg/m <sup>3</sup>  |
| Worker DNEL, long-term   | dermal         | systemic | 1161 mg/kg bw/day      |

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**PNEC values**

| CAS No   | Substance    | Value       |
|--|--------------|-------------|
| Environmental compartment                        |              |             |
| 64-17-5  | Ethanol      |             |
| Freshwater                                       |              | 0,96 mg/l   |
| Freshwater (intermittent releases)               |              | 2,75 mg/l   |
| Marine water                                     |              | 0,79 mg/l   |
| Marine water (intermittent releases)             |              | 2,75 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  |
| 64-19-7  | Acetic acid% |             |
| Freshwater                                       |              | 3,058 mg/l  |
| Freshwater (intermittent releases)               |              | 30,58 mg/l  |
| Marine water                                     |              | 0,306 mg/l  |
| Freshwater sediment                              |              | 11,36 mg/kg |
| Marine sediment                                  |              | 1,136 mg/kg |
| Micro-organisms in sewage treatment plants (STP) |              | 85 mg/l     |
| Soil   |              | 0,47 mg/kg  |
| 78-93-3  | butanone     |             |
| Freshwater                                       |              | 55,8 mg/l   |
| Freshwater (intermittent releases)               |              | 55,8 mg/l   |
| Marine water                                     |              | 55,8 mg/l   |
| Freshwater sediment                              |              | 284,7 mg/kg |
| Marine sediment                                  |              | 284,7 mg/kg |
| Micro-organisms in sewage treatment plants (STP) |              | 709 mg/l    |
| Soil   |              | 22,5 mg/kg  |

**8.2. Exposure controls**
**Appropriate engineering controls**

Provide adequate ventilation. Provide washing facilities at the workplace, provide an eye shower or eyewash bottle and mark them.

**Individual protection measures, such as personal protective equipment**
**Eye/face protection**

Wear eye/face protection. Wear safety glasses; chemical goggles (if splashing is possible). EN 166

**Hand protection**

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. In case of prolonged or frequently repeated skin contact:

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of glove material: 0,4 mm

Breakthrough time  $\geq$  8 h

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Butyl rubber. - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm

Breakthrough time  $\geq$  8 h

PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

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

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

**Skin protection**

Use of protective clothing. Suitable protective clothing: Lab apron.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection. With correct and proper use, and under normal conditions, breathing protection is not required. Suitable respiratory protective equipment: - Particle filter device (EN 143)- P1.

**Environmental exposure controls**

No special precautionary measures are necessary.

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

|   |             |                        |
|---|-------------|------------------------|
| Physical state:   | liquid      |                        |
| Colour:   | blue violet |                        |
| Odour:  | stinging    |                        |
| Melting point/freezing point:                             |             | not determined         |
| Boiling point or initial boiling point and boiling range: |             | not determined         |
| Flammability:   |             | not determined         |
| Lower explosion limits:                                   |             | not determined         |
| Upper explosion limits:                                   |             | not determined         |
| Flash point:  |             | not determined         |
| Auto-ignition temperature:                                |             | not determined         |
| Decomposition temperature:                                |             | not determined         |
| pH-Value (at 20 °C):                                      |             | 2-3                    |
| Viscosity / kinematic:                                    |             | not determined         |
| Water solubility:<br>(at 20 °C)                           |             | miscible.              |
| Solubility in other solvents                              |             | not determined         |
| Partition coefficient n-octanol/water:                    |             | not determined         |
| Vapour pressure:  |             | not determined         |
| Density (at 20 °C):                                       |             | 1,05 g/cm <sup>3</sup> |
| Relative vapour density:                                  |             | not determined         |
| Particle characteristics:                                 |             | not applicable         |

**9.2. Other information****Information with regard to physical hazard classes**

Explosive properties

The product is not: Explosive.

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Sustaining combustion: Not sustaining combustion  
Self-ignition temperature  
Gas: not determined  
Oxidizing properties  
none

**Other safety characteristics**

Evaporation rate: not determined  
Solvent separation test: not determined  
Solvent content: not determined  
Solid content: not determined  
Sublimation point: not determined  
Softening point: not determined  
Pour point: not determined  
Viscosity / dynamic: not determined  
Flow time: not determined

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No information available.

**10.2. Chemical stability**

The product is chemically stable under recommended conditions of storage, use and temperature.

**10.3. Possibility of hazardous reactions**

Refer to chapter 10.5.

**10.4. Conditions to avoid**

Protect against: UV-radiation/sunlight. heat.

**10.5. Incompatible materials**Substances that form flammable gases when in contact with water. Oxidizing agents, strong. peroxides.  
Hydrogenium peroxide. Nitric acid. perchloric acid. Potassium peroxide.**10.6. Hazardous decomposition products**In case of fire may be liberated: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

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

**ATEmix calculated**

ATE (oral) &gt; 2000 mg/kg; ATE (dermal) &gt; 2000 mg/kg; ATE (inhalation vapour) &gt; 20 mg/l; ATE (inhalation dust/mist) &gt; 5 mg/l



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| CAS No  | Chemical name           |               |          |        |                |
|---------|-------------------------|---------------|----------|--------|----------------|
|         | Exposure route          | Dose          | Species  | Source | Method         |
| 64-17-5 | Ethanol                 |               |          |        |                |
|         | oral                    | LD50<br>mg/kg | >5000    | Rat    | ECHA Dossier   |
|         | dermal                  | LD50<br>mg/kg | >2000    | Rabbit | ECHA Dossier   |
|         | inhalation (4 h) vapour | LC50<br>mg/l  | 124,7    | Rat    | ECHA Dossier   |
| 64-19-7 | Acetic acid%            |               |          |        |                |
|         | oral                    | LD50<br>mg/kg | 3530     | Rat    | GESTIS         |
|         | inhalation (4 h) vapour | LC50          | >40 mg/l | Rat    | suppliers SDS. |

**Irritation and corrosivity**

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**

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

**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.

**11.2. Information on other hazards**
**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Other information**

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

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

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

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| CAS No  | Chemical name            |               |           |         |   |              |
|---------|--------------------------|---------------|-----------|---------|---|--------------|
|         | Aquatic toxicity         | Dose          | [h]   [d] | Species | Source                                  | Method       |
| 64-17-5 | Ethanol                  |               |           |         |   |              |
|         | Acute fish toxicity      | LC50<br>mg/l  | 14200     | 96 h    | Pimephales promelas<br>(fathead minnow) | ECHA Dossier |
|         | Acute algae toxicity     | ErC50         | 275 mg/l  | 72 h    | Chlorella vulgaris                      | ECHA Dossier |
|         | Acute crustacea toxicity | EC50<br>mg/l  | 5012      | 48 h    | Ceriodaphnia dubia<br>(water flea)      | ECHA Dossier |
|         | Crustacea toxicity       | NOEC          | 9,6 mg/l  | 9 d     | Daphnia magna                           | ECHA Dossier |
| 64-19-7 | Acetic acid%             |               |           |         |   |              |
|         | Acute fish toxicity      | LC50<br>mg/l  | >300      | 96 h    | Oncorhynchus mykiss                     | ECHA Dossier |
|         | Acute algae toxicity     | ErC50<br>mg/l | >300      | 72 h    | Skeletonema<br>costatum                 | ECHA Dossier |
|         | Acute crustacea toxicity | EC50<br>mg/l  | >300      | 48 h    | Daphnia magna                           | ECHA Dossier |

#### 12.2. Persistence and degradability

Product is biodegradable.

| CAS No  | Chemical name   |       |    |                |
|---------|---|-------|----|----------------|
|         | Method  | Value | d  | Source         |
|         | Evaluation  |       |    |                |
| 64-17-5 | Ethanol   |       |    |                |
|         | other guideline   | 84%   | 20 | ECHA Dossier   |
|         | Biodegradable.  |       |    |                |
| 64-19-7 | Acetic acid%  |       |    |                |
|         | Other guideline   | 95%   | 5  | suppliers SDS. |
|         | Easily biodegradable (concerning to the criteria of the OECD) |       |    |                |

#### 12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

#### Partition coefficient n-octanol/water

| CAS No  | Chemical name | Log Pow |
|---------|---------------|---------|
| 64-17-5 | Ethanol       | -0,31   |
| 64-19-7 | Acetic acid%  | -0,17   |

#### BCF

| CAS No  | Chemical name | BCF  | Species | Source |
|---------|---------------|------|---------|--------|
| 64-19-7 | Acetic acid%  | 3,16 |         |        |

#### 12.4. Mobility in soil

The product has not been tested.

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

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7. Other adverse effects

No information available.

#### Further information

Avoid release to the environment. Do not allow to enter into surface water or drains.

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**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. Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process. Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

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

160509 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

**List of Wastes Code - used product**

160509 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

**List of Wastes Code - contaminated packaging**

150203 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; absorbents, filter materials, wiping cloths and protective clothing; absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02

**Contaminated packaging**

Wash with plenty of water. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information****Land transport (ADR/RID)**

|  |  |
|--|--|
| <b>14.1. UN number or ID number:</b>     | No dangerous good in sense of this transport regulation. |
| <b>14.2. UN proper shipping name:</b>    | No dangerous good in sense of this transport regulation. |
| <b>14.3. Transport hazard class(es):</b> | No dangerous good in sense of this transport regulation. |
| <b>14.4. Packing group:</b>              | No dangerous good in sense of this transport regulation. |

**Inland waterways transport (ADN)**

|  |  |
|--|--|
| <b>14.1. UN number or ID number:</b>     | No dangerous good in sense of this transport regulation. |
| <b>14.2. UN proper shipping name:</b>    | No dangerous good in sense of this transport regulation. |
| <b>14.3. Transport hazard class(es):</b> | No dangerous good in sense of this transport regulation. |
| <b>14.4. Packing group:</b>              | No dangerous good in sense of this transport regulation. |

**Marine transport (IMDG)**

|  |  |
|--|--|
| <b>14.1. UN number or ID number:</b>     | No dangerous good in sense of this transport regulation. |
| <b>14.2. UN proper shipping name:</b>    | No dangerous good in sense of this transport regulation. |
| <b>14.3. Transport hazard class(es):</b> | No dangerous good in sense of this transport regulation. |
| <b>14.4. Packing group:</b>              | No dangerous good in sense of this transport regulation. |

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

|  |  |
|--|--|
| <b>14.1. UN number or ID number:</b>     | No dangerous good in sense of this transport regulation. |
| <b>14.2. UN proper shipping name:</b>    | No dangerous good in sense of this transport regulation. |
| <b>14.3. Transport hazard class(es):</b> | No dangerous good in sense of this transport regulation. |
| <b>14.4. Packing group:</b>              | No dangerous good in sense of this transport regulation. |

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

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#### **14.6. Special precautions for user**

Refer to section 6-8

#### **14.7. Maritime transport in bulk according to IMO instruments**

not relevant

### 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 40, Entry 75

2010/75/EU (VOC):

No information available.

2004/42/EC (VOC):

No information available.

Information according to 2012/18/EU  
(SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

##### **Additional information**

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

##### **National regulatory information**

Water hazard class (D):

1 - slightly hazardous to water

#### **15.2. Chemical safety assessment**

For the following substances of this mixture a chemical safety assessment has been carried out:

Ethanol

Acetic acid%

### SECTION 16: Other information

#### **Changes**

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

Rev. 2,0; 10.07.2022; Einzel SDB auf Grundlage von 11974\_collect

Rev. 2,1; 18.12.2023; general adjustment(s)

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**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen  
AGW: Arbeitsplatzgrenzwert  
AVV: Abfallverzeichnisverordnung  
CAS: Chemical Abstracts Service  
CLP: Classification, Labelling and Packaging of substances and mixtures  
DNEL: Derived No Effect Level  
d: day(s)  
EAKV: Europäisches Abfallverzeichnis gemäß Entwurf Abfallverzeichnisverordnung  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
ECHA: European Chemicals Agency  
EWC: European Waste Catalogue  
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)  
h: hour  
LOAEL: Lowest observed adverse effect level  
LOAEC: Lowest observed adverse effect concentration  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
NOAEL: No observed adverse effect level  
NOAEC: No observed adverse effect level  
NLP: No-Longer Polymers  
N/A: not applicable  
OECD: Organisation for Economic Co-operation and Development  
PNEC: predicted no effect concentration  
PBT: Persistent bioaccumulative toxic  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail )  
REACH: Registration, Evaluation, Authorisation of Chemicals  
SVHC: substance of very high concern  
TRGS Technische Regeln fuer Gefahrstoffe  
UN: United Nations  
VOC: Volatile Organic Compounds  
VwVwS: Verwaltungsvorschrift wassergefaehrdender Stoffe  
WGK: Wassergefaehrungsklasse  
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  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%  
ErC50: Effective Concentration 50%, growth rate

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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)  
EmS: Emergency Schedules  
MFAG: Medical First Aid Guide  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
IBC: Intermediate Bulk Container  
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety  
assessment, chapter R.20 (Table of terms and abbreviations).  
Flam. Liq: Flammable liquids  
Skin Corr: Skin corrosion  
Eye Irrit: Eye irritation  
STOT SE: Specific target organ toxicity - single exposure

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

|        |  |
|--------|--|
| H225   | Highly flammable liquid and vapour.      |
| H226   | Flammable liquid and vapour.             |
| H314   | Causes severe skin burns and eye damage. |
| H319   | Causes serious eye irritation.           |
| EUH210 | Safety data sheet available on request.  |

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:

Health hazards: Calculation method.

Environmental hazards: Calculation method.

Physical hazards: On basis of test data and / or calculated and / or estimated.

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.

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