

## Safety Data Sheet

according to UK REACH Regulation

Revision date: 20.08.2024

### FREIBURG's Fixation

Product code: 13090.xxxxx

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

### 1.1. Product identifier

FREIBURG's Fixation

UFI: JU75-G1TR-900C-Q15K

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

#### Use of the substance/mixture

Use as laboratory reagent.

The product is intended for research, analysis and scientific education.

#### Uses advised against

Any non-intended use.

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

Company name: MORPHISTO GmbH

Street: Schumannstr. 142/144

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:

Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### GB CLP Regulation

Skin Sens. 1; H317

Muta. 2; H341

Carc. 1B; H350

STOT SE 3; H335

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### GB CLP Regulation

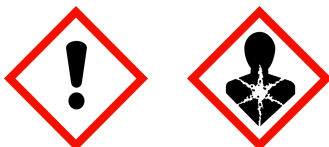
##### Hazard components for labelling

formaldehyde 1%. 01-2119488953-20-xxxx

glutaraldehyde

Signal word: Danger

#### Pictograms:



#### Hazard statements

H317

May cause an allergic skin reaction.

H335

May cause respiratory irritation.

H341

Suspected of causing genetic defects.

H350

May cause cancer.

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#### Precautionary statements

- P201 Obtain special instructions before use.  
P280 Wear protective gloves/protective clothing and eye protection/face protection.  
P308+P313 IF exposed or concerned: Get medical advice/attention.

#### Special labelling of certain mixtures

Restricted to professional users.

#### Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

Pictograms:



#### Hazard statements

H317-H341-H350

#### Precautionary statements

P201-P280-P308+P313

#### 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

##### Relevant ingredients

| CAS No   | Chemical name                                                                                                                                                                           |              |                  | Quantity  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------|-----------|
|          | EC No                                                                                                                                                                                   | Index No     | REACH No         |           |
|          | Classification (GB CLP Regulation)                                                                                                                                                      |              |                  |           |
| 50-00-0  | formaldehyde%. 01-2119488953-20-xxxx                                                                                                                                                    |              |                  | 1 - < 5 % |
|          | 200-001-8                                                                                                                                                                               | 605-001-00-5 | 01-2119488953-20 |           |
|          | Carc. 1B, Muta. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Skin Sens. 1; H350 H341 H331 H311 H301 H314 H317                                                            |              |                  |           |
| 111-30-8 | glutaraldehyde                                                                                                                                                                          |              |                  | < 1 %     |
|          | 203-856-5                                                                                                                                                                               | 605-022-00-X | 01-2119455549-26 |           |
|          | Acute Tox. 2, Acute Tox. 3, Skin Corr. 1B, Eye Dam. 1, Resp. Sens. 1, Skin Sens. 1A, STOT SE 3, Aquatic Acute 1, Aquatic Chronic 2; H330 H301 H314 H318 H334 H317 H335 H400 H411 EUH071 |              |                  |           |
| 67-56-1  | methanol                                                                                                                                                                                |              |                  | < 1 %     |
|          | 200-659-6                                                                                                                                                                               | 603-001-00-X | 01-2119433307-44 |           |
|          | Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT SE 1; H225 H331 H311 H301 H370                                                                                             |              |                  |           |

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

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

| CAS No   | EC No     | Chemical name                                                                                                                                                                                                                                                                                     | Quantity  |
|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
|          |           | Specific Conc. Limits, M-factors and ATE                                                                                                                                                                                                                                                          |           |
| 50-00-0  | 200-001-8 | formaldehyde%. 01-2119488953-20-xxxx                                                                                                                                                                                                                                                              | 1 - < 5 % |
|          |           | inhalation: LC50 = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: LD50 = 292 mg/kg; oral: LD50 = 100 mg/kg Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 5 - < 25 Eye Irrit. 2; H319: >= 5 - < 25 Skin Sens. 1; H317: >= 0,2 - 100 STOT SE 3; H335: >= 5 - 100 |           |
| 111-30-8 | 203-856-5 | glutaraldehyde                                                                                                                                                                                                                                                                                    | < 1 %     |
|          |           | inhalation: LC50 = 0,5 mg/l (vapours); inhalation: LC50 = 0,28 mg/l (dusts or mists); dermal: LD50 = >1000 mg/kg; oral: LD50 = 135 mg/kg STOT SE 3; H335: >= 0,5 - < 5 Aquatic Acute 1; H400: M=1                                                                                                 |           |
| 67-56-1  | 200-659-6 | methanol                                                                                                                                                                                                                                                                                          | < 1 %     |
|          |           | inhalation: LC50 = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: LD50 = 300 mg/kg; oral: LD50 = 100 mg/kg STOT SE 1; H370: >= 10 - 100 STOT SE 2; H371: >= 3 - < 10                                                                                                      |           |

#### Further Information

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: glutaraldehyde (C.A.S. 111-30-8)

### 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).

Remove contaminated, saturated clothing immediately.

First aider: Pay attention to self-protection!

##### After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice. In case of accident by inhalation: remove casualty to fresh air and keep at rest. Where appropriate artificial ventilation. Call a physician immediately.

##### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

##### 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

Observe risk of aspiration if vomiting occurs. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting.

#### 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

First Aid, decontamination, treatment of symptoms.

### 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.

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**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>). Formaldehyde**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit. In case of fire and/or explosion do not breathe fumes.

**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. 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**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Ventilate affected area.

Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Eliminate leaks immediately. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

**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.

The contaminated area should be cleaned up immediately with: a concentrated aqueous sodium bisulfite solution. Rinse with water.

**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**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Technical ventilation of workplace. Use extractor hood (laboratory).

Wear suitable protective clothing. ( See section 8. )

Avoid exposure - obtain special instructions before use.

Avoid contact with skin, eyes and clothes.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Advice on general occupational hygiene**

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,

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drink, smoke, sniff. Always close containers tightly after the removal of product. Wash contaminated clothing prior to re-use. Used working clothes should not be worn outside the work area. Street clothing should be stored separately from work clothing.

#### Further information on handling

General protection and hygiene measures: See section 8.

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

##### Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations.

Keep/Store only in original container. Ensure adequate ventilation of the storage area.

##### Hints on joint storage

Do not store together with: Explosives. Gas.. Oxidizing liquids. Oxidizing solids. Self-reactive substances and mixtures. Organic peroxides. Ammonium nitrate. Combustible toxic substances. Non-combustible toxic substances. Radioactive substances. Infectious substances.

##### Further information on storage conditions

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

Recommended storage temperature: 4-8 °C

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

Store small packages in a suitable, robust cabinet.

#### 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 |
|----------|----------------|------|-------------------|-----------|---------------|--------|
| 50-00-0  | Formaldehyde   | 2    | 2.5               |           | TWA (8 h)     | WEL    |
|          |                | 2    | 2.5               |           | STEL (15 min) | WEL    |
| 111-30-8 | Glutaraldehyde | 0.05 | 0.2               |           | TWA (8 h)     | WEL    |
|          |                | 0.05 | 0.2               |           | STEL (15 min) | WEL    |
| 67-56-1  | Methanol       | 200  | 266               |           | TWA (8 h)     | WEL    |
|          |                | 250  | 333               |           | STEL (15 min) | WEL    |

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#### DNEL/DMEL values

| CAS No                 | Substance                            |  |          |                          |
|------------------------|--------------------------------------|--|----------|--------------------------|
| DNEL type              | Exposure route                       |  | Effect   | Value                    |
| 50-00-0                | formaldehyde%. 01-2119488953-20-xxxx |  |          |                          |
| Worker DNEL, acute     | inhalation                           |  | systemic | 1 mg/m <sup>3</sup>      |
| Worker DNEL, long-term | dermal                               |  | systemic | 240 mg/kg bw/day         |
| Worker DNEL, long-term | inhalation                           |  | systemic | 0,5 mg/m <sup>3</sup>    |
| Worker DNEL, long-term | inhalation                           |  | local    | 0,375 mg/m <sup>3</sup>  |
| Worker DNEL, acute     | inhalation                           |  | local    | 0,75 mg/m <sup>3</sup>   |
| Worker DNEL, long-term | dermal                               |  | local    | 0,037 mg/cm <sup>2</sup> |
| 67-56-1                | methanol                             |  |          |                          |
| Worker DNEL, acute     | inhalation                           |  | local    | 260 mg/m <sup>3</sup>    |
| Worker DNEL, acute     | dermal                               |  | systemic | 40 mg/kg bw/day          |
| Worker DNEL, acute     | inhalation                           |  | systemic | 260 mg/m <sup>3</sup>    |
| Worker DNEL, long-term | inhalation                           |  | local    | 260 mg/m <sup>3</sup>    |
| Worker DNEL, long-term | dermal                               |  | systemic | 40 mg/kg bw/day          |
| Worker DNEL, long-term | inhalation                           |  | systemic | 260 mg/m <sup>3</sup>    |

#### PNEC values

| CAS No                                           | Substance                            |  |  |
|--------------------------------------------------|--------------------------------------|--|--|
| Environmental compartment                        | Value                                |  |  |
| 50-00-0                                          | formaldehyde%. 01-2119488953-20-xxxx |  |  |
| Freshwater                                       | 0,44 mg/l                            |  |  |
| Freshwater (intermittent releases)               | 4,44 mg/l                            |  |  |
| Marine water                                     | 0,44 mg/l                            |  |  |
| Freshwater sediment                              | 2,3 mg/kg                            |  |  |
| Marine sediment                                  | 2,3 mg/kg                            |  |  |
| Micro-organisms in sewage treatment plants (STP) | 0,19 mg/l                            |  |  |
| Soil                                             | 0,2 mg/kg                            |  |  |
| 67-56-1                                          | methanol                             |  |  |
| Freshwater                                       | 20,8 mg/l                            |  |  |
| Marine water                                     | 2,08 mg/l                            |  |  |
| Marine water (intermittent releases)             | 1540 mg/l                            |  |  |
| Freshwater sediment                              | 77 mg/kg                             |  |  |
| Marine sediment                                  | 7,7 mg/kg                            |  |  |
| Micro-organisms in sewage treatment plants (STP) | 100 mg/l                             |  |  |
| Soil                                             | 3,18 mg/kg                           |  |  |

#### 8.2. Exposure controls



##### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe

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gas/fumes/vapour/spray. Technical ventilation of workplace. Use extractor hood (laboratory).

Process within closed systems.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Wear eye protection/face protection. Tightly sealed safety glasses. 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. Pull-over gloves of rubber. EN ISO 374

Suitable material:

(penetration time (maximum wearing period):  $\geq 8$  Stunden):

CR (polychloroprenes, Chloroprene rubber). (0,5 mm)

NBR (Nitrile rubber). (0,35 mm)

FKM (fluororubber). (0,4 mm)

PVC (Polyvinyl chloride). (0,5 mm)

Butyl rubber. (0,5 mm)

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: Protective clothing.

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. Respiratory protection necessary at:

Insufficient ventilation.

insufficient absorption.

exceeding exposure limit values

Release of: product

Suitable respiratory protective equipment:

Self-contained respirator (breathing apparatus)

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. The wearing time limitations according to GefStoffV in conjunction with the rules for the use of respiratory protective devices (BGR 190) must be observed.

##### Environmental exposure controls

Do not empty into drains. Avoid release to the environment.

## SECTION 9: Physical and chemical properties

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

|                                                           |                |                |
|-----------------------------------------------------------|----------------|----------------|
| Physical state:                                           | liquid         |                |
| Colour:                                                   | colourless     |                |
| Odour:                                                    | characteristic |                |
| Melting point/freezing point:                             |                | not determined |
| Boiling point or initial boiling point and boiling range: |                | 100 °C         |
| Flammability:                                             |                | not determined |
| Lower explosion limits:                                   |                | not determined |
| Upper explosion limits:                                   |                | not determined |

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|                                                |                        |
|------------------------------------------------|------------------------|
| Flash point:                                   | not determined         |
| Auto-ignition temperature:                     | not determined         |
| Decomposition temperature:                     | not determined         |
| pH-Value (at 20 °C):                           | 7,0-7,5                |
| Viscosity / kinematic:                         | not determined         |
| Water solubility:<br>(at 20 °C)                | completely miscible    |
| Solubility in other solvents<br>not determined |                        |
| Partition coefficient n-octanol/water:         | not determined         |
| Vapour pressure:                               | 23 hPa                 |
| Density (at 20 °C):                            | 1,01 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.

###### 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

No information available.

#### 10.4. Conditions to avoid

Keep away from heat.

#### 10.5. Incompatible materials

Materials to avoid: Oxidizing agents, strong. Strong acid. Nitrogen oxides (NOx). Nitric acid. Hydrogenium peroxide. Aniline. Performic acid, perchloric acid

#### 10.6. Hazardous decomposition products

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

### SECTION 11: Toxicological information

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#### 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) > 5000 mg/kg; ATE (dermal) > 5000 mg/kg; ATE (inhalation vapour) > 50 mg/l; ATE (inhalation dust/mist) > 12,5 mg/l

| CAS No   | Chemical name                        |                  |         |                |          |
|----------|--------------------------------------|------------------|---------|----------------|----------|
|          | Exposure route                       | Dose             | Species | Source         | Method   |
| 50-00-0  | formaldehyde%. 01-2119488953-20-xxxx |                  |         |                |          |
|          | oral                                 | LD50 100 mg/kg   | Rat     | GESTIS         |          |
|          | dermal                               | LD50 292 mg/kg   | Rabbit  | GESTIS         |          |
|          | inhalation (4 h) vapour              | LC50 3 mg/l      | Rat     | suppliers SDS. |          |
|          | inhalation dust/mist                 | ATE 0,5 mg/l     |         |                |          |
| 111-30-8 | glutaraldehyde                       |                  |         |                |          |
|          | oral                                 | LD50 135 mg/kg   | Rat     | GESTIS         |          |
|          | dermal                               | LD50 >1000 mg/kg | Rabbit  | GESTIS         |          |
|          | inhalation (4 h) vapour              | LC50 0,5 mg/l    | Rat     |                |          |
|          | inhalation (4 h) dust/mist           | LC50 0,28 mg/l   | Rat     |                | OECD 403 |
| 67-56-1  | methanol                             |                  |         |                |          |
|          | oral                                 | LD50 100 mg/kg   | Rat     | suppliers SDS. |          |
|          | dermal                               | LD50 300 mg/kg   | Rabbit  | suppliers SDS. |          |
|          | inhalation (4 h) vapour              | LC50 3 mg/l      | Rat     | suppliers SDS. |          |
|          | inhalation dust/mist                 | ATE 0,5 mg/l     |         |                |          |

##### Irritation and corrosivity

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

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

##### Sensitising effects

May cause an allergic skin reaction. (formaldehyde%. 01-2119488953-20-xxxx; glutaraldehyde)

##### Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing genetic defects. (formaldehyde%. 01-2119488953-20-xxxx)

May cause cancer. (formaldehyde%. 01-2119488953-20-xxxx)

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

##### STOT-single exposure

May cause respiratory irritation. (glutaraldehyde)

##### 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 any substance that has endocrine disrupting properties in humans as no ingredient meets the criteria.

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#### Other information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

### SECTION 12: Ecological information

#### 12.1. Toxicity

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

| CAS No   | Chemical name                        |                  |           |                                 |              |          |
|----------|--------------------------------------|------------------|-----------|---------------------------------|--------------|----------|
|          | Aquatic toxicity                     | Dose             | [h]   [d] | Species                         | Source       | Method   |
| 50-00-0  | formaldehyde%. 01-2119488953-20-xxxx |                  |           |                                 |              |          |
|          | Acute fish toxicity                  | LC50 24,1 mg/l   | 96 h      | Pimephales promelas             | ECHA Dossier |          |
|          | Acute algae toxicity                 | ErC50 4,89 mg/l  | 72 h      | Desmodesmus subspicatus         | ECHA Dossier |          |
|          | Acute crustacea toxicity             | EC50 5,8 mg/l    | 48 h      | Daphnia pulex (water flea)      | ECHA Dossier |          |
| 111-30-8 | glutaraldehyde                       |                  |           |                                 |              |          |
|          | Acute fish toxicity                  | LC50 12,2 mg/l   | 96 h      | sheepshead minnows              | ECHA         |          |
|          | Acute crustacea toxicity             | EC50 5,1 mg/l    | 48 h      | Daphnia pulex (water flea)      | GESTIS       |          |
| 67-56-1  | methanol                             |                  |           |                                 |              |          |
|          | Acute fish toxicity                  | LC50 15400 mg/l  | 96 h      | Lepomis macrochirus             | ECHA Dossier |          |
|          | Acute algae toxicity                 | ErC50 22000 mg/l | 96 h      | Pseudokirchneriella subcapitata | ECHA Dossier |          |
|          | Acute crustacea toxicity             | EC50 >1000 mg/l  | 48 h      | Daphnia magna                   | ECHA Dossier | OECD 202 |

#### 12.2. Persistence and degradability

The product has not been tested.

| CAS No  | Chemical name                                                 |       |    |              |
|---------|---------------------------------------------------------------|-------|----|--------------|
|         | Method                                                        | Value | d  | Source       |
|         | Evaluation                                                    |       |    |              |
| 50-00-0 | formaldehyde%. 01-2119488953-20-xxxx                          |       |    |              |
|         | OECD Guideline 301 C                                          | 91 %  | 14 | ECHA Dossier |
|         | Easily biodegradable (concerning to the criteria of the OECD) |       |    |              |
|         | OECD Guideline 301 D                                          | 90    | 28 | ECHA Dossier |
|         | Product is biodegradable.                                     |       |    |              |
| 67-56-1 | methanol                                                      |       |    |              |
|         | other guideline                                               | 96%   | 20 | ECHA Dossier |
|         | Easily biodegradable (concerning to the criteria of the OECD) |       |    |              |

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### Partition coefficient n-octanol/water

| CAS No   | Chemical name                        | Log Pow |
|----------|--------------------------------------|---------|
| 50-00-0  | formaldehyde%. 01-2119488953-20-xxxx | 0,35    |
| 111-30-8 | glutaraldehyde                       | -0,18   |
| 67-56-1  | methanol                             | -0,77   |

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#### BCF

| CAS No   | Chemical name  | BCF  | Species | Source |
|----------|----------------|------|---------|--------|
| 111-30-8 | glutaraldehyde | 3,16 |         |        |
| 67-56-1  | methanol       | <10  |         |        |

#### 12.4. Mobility in soil

No information available.

#### 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

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Do not allow uncontrolled discharge of product into the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

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

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

##### List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

##### List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

##### Contaminated packaging

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

##### 14.1. UN number or ID number:

No dangerous good in sense of this transport regulation.

##### 14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

##### 14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

##### 14.4. Packing group:

No dangerous good in sense of this transport regulation.

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|                                          |                                                          |
|------------------------------------------|----------------------------------------------------------|
| <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

#### 14.6. Special precautions for user

Not restricted

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

Not restricted

### SECTION 15: Regulatory information

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

##### EU regulatory information

Authorisations (REACH, annex XIV):

 Substances of very high concern, SVHC (REACH, article 59):  
 glutaraldehyde

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Directive 2010/75/EU on industrial emissions: No information available.

Directive 2004/42/EC on VOC in paints and varnishes: No information available.

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

##### Additional information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

##### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 3 - highly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

##### Additional information

The product is subject to the Chemicals Prohibition Ordinance (ChemVerbotsV). Observe the requirements and restrictions for handling and dispensing in Section 3 of the ChemVerbotsV, among others.

#### 15.2. Chemical safety assessment

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

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formaldehyde%. 01-2119488953-20-xxxx  
glutaraldehyde  
methanol

**SECTION 16: Other information****Changes**

Rev. 2,0; 20.08.2024; Recreation from collect\_SDB

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**Abbreviations and acronyms**

Flam. Liq: Flammable liquids  
Acute Tox: Acute toxicity  
Skin Corr: Skin corrosion  
Eye Dam: Eye damage  
Resp. Sens: Respiratory sensitisation  
Skin Sens: Skin sensitisation  
Muta: Germ cell mutagenicity  
Carc: Carcinogenicity  
STOT SE: Specific target organ toxicity - single exposure  
Aquatic Acute: Acute aquatic hazard  
Aquatic Chronic: Chronic aquatic hazard  
ADR: Accord européen sur le transport des marchandises dangereuses par Route  
CAS Chemical Abstracts Service  
DNEL: Derived No Effect Level  
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)  
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  
NTP: National Toxicology Program  
N/A: not applicable  
OSHA: Occupational Safety and Health Administration  
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 )  
SARA: Superfund Amendments and Reauthorization Act  
SVHC: substance of very high concern  
TRGS Technische Regeln fuerGefahrstoffe  
TSCA: Toxic Substances Control Act  
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%

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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)  
 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 table at <http://abbrev.esdscom.eu>  
 EC/EEC: European Community/European Economic Community  
 EU: European Union  
 M-factor: Multiplying factor  
 IATA: International Air Transport Association  
 DGR: Dangerous Goods Regulations  
 ICAO: International Civil Aviation Organization  
 TI: Technical Instructions  
 VOC: volatile organic compound  
 For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety  
 assessment, chapter R.20 (Table of terms and abbreviations).

#### Classification for mixtures and used evaluation method according to GB CLP Regulation

| Classification     | Classification procedure |
|--------------------|--------------------------|
| Skin Sens. 1; H317 | Calculation method       |
| Muta. 2; H341      | Calculation method       |
| Carc. 1B; H350     | Calculation method       |
| STOT SE 3; H335    | Calculation method       |

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

|        |                                                                            |
|--------|----------------------------------------------------------------------------|
| H225   | Highly flammable liquid and vapour.                                        |
| H301   | Toxic if swallowed.                                                        |
| H311   | Toxic in contact with skin.                                                |
| H314   | Causes severe skin burns and eye damage.                                   |
| H317   | May cause an allergic skin reaction.                                       |
| H318   | Causes serious eye damage.                                                 |
| H330   | Fatal if inhaled.                                                          |
| H331   | Toxic if inhaled.                                                          |
| H334   | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335   | May cause respiratory irritation.                                          |
| H341   | Suspected of causing genetic defects.                                      |
| H350   | May cause cancer.                                                          |
| H370   | Causes damage to organs.                                                   |
| H400   | Very toxic to aquatic life.                                                |
| H411   | Toxic to aquatic life with long lasting effects.                           |
| EUH071 | Corrosive to the respiratory tract.                                        |

#### 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 EC regulation 1272/2008 (CLP): -

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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.

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