

## Safety Data Sheet

according to UK REACH Regulation

### BOUINs reagent (4 % formaldehyde)

Revision date: 26.03.2024

Product code: 18284.xxxxx

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

### 1.1. Product identifier

BOUINs reagent (4 % formaldehyde)

UFI: 6SMM-C1UN-400S-G4UP

### 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

Acute Tox. 4; H302  
Skin Corr. 1; H314  
Eye Dam. 1; H318  
Skin Sens. 1; H317  
Muta. 2; H341  
Carc. 1B; H350

Full text of hazard statements: see SECTION 16.

The mixture was classified as corrosive precautionary due to an extreme pH-value.

### 2.2. Label elements

#### GB CLP Regulation

#### Hazard components for labelling

Acetic acid%  
formaldehyde%  
methanol  
picric acid

Signal word: Danger

#### Pictograms:



#### Hazard statements

H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.

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- |      |                                       |
|------|---------------------------------------|
| H317 | May cause an allergic skin reaction.  |
| H341 | Suspected of causing genetic defects. |
| H350 | May cause cancer.                     |

**Precautionary statements**

- |                |  |
|----------------|--|
| P201           | Obtain special instructions before use.  |
| P260           | Do not breathe mist/vapours/spray.   |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.   |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.                           |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310           | Immediately call a POISON CENTER/doctor.   |

**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**

H314-H317-H341-H350

**Precautionary statements**

P201-P260-P280-P303+P361+P353-P305+P351+P338

**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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**Relevant ingredients**

| CAS No  | Chemical name  |              |                  | Quantity   |
|---------|--|--------------|------------------|------------|
|         | EC No  | Index No     | REACH No         |            |
|         | Classification (GB CLP Regulation)   |              |                  |            |
| 64-19-7 | Acetic acid%   |              |                  | 5 - < 10 % |
|         | 200-580-7  | 607-002-00-6 | 01-2119475328-30 |            |
|         | Flam. Liq. 3, Skin Corr. 1A; H226 H314   |              |                  |            |
| 50-00-0 | formaldehyde%  |              |                  | 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 |              |                  |            |
| 67-56-1 | methanol   |              |                  | 1 - < 5 %  |
|         | 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                                  |              |                  |            |
| 88-89-1 | picric acid  |              |                  | 1 - < 5 %  |
|         | 201-865-9  | 609-009-00-X |                  |            |
|         | Expl. 1.1, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3; H201 H331 H311 H301   |              |                  |            |

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  |            |
| 64-19-7 | 200-580-7 | Acetic acid%  | 5 - < 10 % |
|         |           | 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  |            |
| 50-00-0 | 200-001-8 | formaldehyde%   | 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 |            |
| 67-56-1 | 200-659-6 | methanol  | 1 - < 5 %  |
|         |           | 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  |            |
| 88-89-1 | 201-865-9 | picric acid   | 1 - < 5 %  |
|         |           | inhalation: ATE = 3 mg/l (vapours); inhalation: LC50 = 0,51 mg/l (dusts or mists); dermal: LD50 = 300,1 mg/kg; oral: LD50 = 200 mg/kg   |            |

**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**

Remove affected person from the danger area and lay down. To supervise the blood circulation. 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! Use appropriate respiratory protection.

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**After inhalation**

Provide fresh air. When in doubt or if symptoms are observed, get medical advice. In case of irregular breathing or respiratory arrest provide artificial respiration. No direct artificial respiration to be given by first aider. 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**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist.

**After ingestion**

Observe risk of aspiration if vomiting occurs. Adverse human health effects and symptoms: Gastric perforation. Do not allow a neutralisation agent to be drunk. Call a physician immediately. Rinse mouth thoroughly with water. Let water be drunk in little sips (dilution effect). Do NOT induce vomiting.

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

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

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

Treat symptomatically. 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. alcohol resistant foam. dry extinguishing powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media**

High power water jet.

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

Non-flammable. Vapours can form explosive mixtures with air. Explosive when dry. In case of fire may be liberated: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>). Formaldehyde. Nitrogen oxides (NO<sub>x</sub>).

**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.

**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. Do not allow to dry. Risk of explosion in case of drying up. 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.

**For non-emergency personnel**

Ventilate affected area. Clear danger zone. Follow emergency plan. Consult an expert.

**For emergency responders**

Do not allow to dry. Risk of explosion in case of drying up. Stop leak if safe to do so. Dampen dust and place it

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in a properly closed receptacle and dispose of it safely. Move undamaged containers from immediate hazard area if it can be done safely.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Discharge into the environment must be avoided. Inform competent authorities in case of accidental release. (Larger quantities)

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

Cover drains. Collect, embank and pump out. Observe possible material restrictions (section 10). Do not dry up the product.

**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. 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. Always close containers tightly after the removal of product.

**Advice on protection against fire and explosion**

Usual measures for fire prevention. Do not allow to dry. Risk of explosion in case of drying up.

**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, drink, smoke, sniff. Always close containers tightly after the removal of product. Remove contaminated clothing immediately and dispose off safely. 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**

Always remove adhering product residues from lids and closures before closing the product.

General protection and hygiene measures: refer to chapter 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 exhaustion at critical locations. Keep/Store only in original container. Make sure spills can be contained, e.g. in sump pallets or kerbed areas. Storage: Just as long as necessary.

Unsuitable materials for Container: metal.

**Hints on joint storage**

Do not store together with: food and feed. pharmaceuticals. Infectious substances. Radioactive substances. Explosive substances. Oxidizing substances. Oxidizing liquids. Organic peroxides. Self-reactive substances and mixtures. Pyrophoric solids. Substances which in contact with water form flammable gases. Ammonium nitrate and preparations containing ammonium nitrate. Gas.. Oxidizing liquids. Oxidizing solids. Combustible toxic substances. Non-combustible toxic substances.

**Further information on storage conditions**

Ensure adequate ventilation of the storage area. Store small packages in a suitable, robust cabinet.

Protect against: UV-radiation/sunlight., Heat Recommended storage temperature: 15-25°. Do not allow to dry.

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Risk of explosion in case of drying up.

**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    |
| 50-00-0 | Formaldehyde | 2   | 2.5               |           | TWA (8 h)     | WEL    |
|         |              | 2   | 2.5               |           | STEL (15 min) | WEL    |
| 67-56-1 | Methanol     | 200 | 266               |           | TWA (8 h)     | WEL    |
|         |              | 250 | 333               |           | STEL (15 min) | WEL    |
| 88-89-1 | Picric acid  | -   | 0.1               |           | TWA (8 h)     | WEL    |
|         |              | -   | 0.3               |           | STEL (15 min) | WEL    |

**DNEL/DMEL values**

| CAS No                   | Substance     | Exposure route | Effect   | Value                    |
|--------------------------|---------------|----------------|----------|--------------------------|
| 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>     |
| 50-00-0                  | formaldehyde% |                |          |                          |
| 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>    |

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**PNEC values**

| CAS No   | Substance     | Value       |
|--|---------------|-------------|
| Environmental compartment                        |               |             |
| 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  |
| 50-00-0  | formaldehyde% |             |
| 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 gas/fumes/vapour/spray. Technical measures and the application of suitable work processes have priority over personal protection equipment. Technical ventilation of workplace. Process within closed systems. Use extractor hood (laboratory). 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**

Suitable eye protection: goggles. Tightly sealed safety glasses. Eye glasses with side protection 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

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supplier of these gloves. Pull-over gloves of rubber. EN ISO 374 Suitable material:

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

Butyl rubber.

(penetration time (maximum wearing period):  $\geq$  4 Stunden):

FKM (fluororubber).

(penetration time (maximum wearing period):  $\geq$  1 Stunde):

CR (polychloroprenes, Chloroprene rubber).

Before using check leak tightness / impermeability.

#### Skin protection

Use of protective clothing. Chemical protection 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. 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.

#### Thermal hazards

Do not dry up the product. Risk of explosion in case of drying up.

#### Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

## SECTION 9: Physical and chemical properties

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

|   |                |                        |
|---|----------------|------------------------|
| Physical state:   | liquid         |                        |
| Colour:   | yellow         |                        |
| Odour:  | characteristic |                        |
| Melting point/freezing point:                             |                | not determined         |
| Boiling point or initial boiling point and boiling range: |                | 97 °C                  |
| Flammability:   |                | not determined         |
| Lower explosion limits:                                   |                | 7 vol. %               |
| Upper explosion limits:                                   |                | 73 vol. %              |
| Flash point:  |                | 39 °C                  |
| Auto-ignition temperature:                                |                | 440 °C                 |
| Decomposition temperature:                                |                | not determined         |
| pH-Value (at 20 °C):                                      |                | 1,0-2,0                |
| Viscosity / kinematic:                                    |                | not determined         |
| Water solubility:   |                | completely miscible    |
| Solubility in other solvents                              |                |                        |
| not determined  |                |                        |
| Partition coefficient n-octanol/water:                    |                | not determined         |
| Vapour pressure:  |                | 23 hPa                 |
| (at 20 °C)  |                |                        |
| Vapour pressure:  |                | 123 hPa                |
| (at 50 °C)  |                |                        |
| Density (at 20 °C):                                       |                | 0,99 g/cm <sup>3</sup> |
| Relative vapour density:                                  |                | not determined         |
| Particle characteristics:                                 |                | not applicable         |



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#### **9.2. Other information**

##### **Information with regard to physical hazard classes**

Explosive properties

The product is not: Explosive. Do not dry up the product. Risk of explosion in case of drying up.

Sustaining combustion:

Not sustaining combustion

Oxidizing properties

none

##### **Other safety characteristics**

Evaporation rate:

not determined

Pour point:

not determined

Viscosity / dynamic:

not determined

Flow time:

not determined

### SECTION 10: Stability and reactivity

#### **10.1. Reactivity**

Possibility of hazardous reactions.

#### **10.2. Chemical stability**

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

#### **10.3. Possibility of hazardous reactions**

Exothermic reaction with: Base, Peroxides, Oxidizing agent. Reaction with: peroxides, for example hydrogen peroxide. Chrom(VI)-oxide. permanganates, e.g. potassium permanganate. Performic acid, perchloric acid. Phosphorus trichloride. Alcohols. Nitric acid. Ammonium nitrate. Aniline.

#### **10.4. Conditions to avoid**

Keep away from heat. Do not allow to dry. Risk of explosion in case of drying up. Protect from direct sunlight.

#### **10.5. Incompatible materials**

Keep away from: Base, Oxidizing agent, Peroxides. Information is given in subsection 10.3.

#### **10.6. Hazardous decomposition products**

In case of fire may be liberated: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>). Formaldehyde. Nitrogen oxides (NO<sub>x</sub>).

### SECTION 11: Toxicological information

#### **11.1. Information on hazard classes as defined in GB CLP Regulation**

##### **Acute toxicity**

Harmful if swallowed.

##### **ATEmix calculated**

ATE (oral) 1622 mg/kg; ATE (dermal) 4446 mg/kg; ATE (inhalation vapour) 44,45 mg/l; ATE (inhalation dust/mist) 7,434 mg/l

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| CAS No  | Chemical name              |                  |         |                |        |
|---------|----------------------------|------------------|---------|----------------|--------|
|         | Exposure route             | Dose             | Species | Source         | Method |
| 64-19-7 | Acetic acid%               |                  |         |                |        |
|         | oral                       | LD50 3530 mg/kg  | Rat     | GESTIS         |        |
|         | inhalation (4 h) vapour    | LC50 >40 mg/l    | Rat     | suppliers SDS. |        |
| 50-00-0 | formaldehyde%              |                  |         |                |        |
|         | 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     |         |                |        |
| 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     |         |                |        |
| 88-89-1 | picric acid                |                  |         |                |        |
|         | oral                       | LD50 200 mg/kg   | Rat     | RTECS          |        |
|         | dermal                     | LD50 300,1 mg/kg |         |                |        |
|         | inhalation vapour          | ATE 3 mg/l       |         |                |        |
|         | inhalation (4 h) dust/mist | LC50 0,51 mg/l   |         |                |        |

**Irritation and corrosivity**

Causes severe skin burns and eye damage. (On basis of test data)

Causes serious eye damage. (On basis of test data)

**Sensitising effects**

May cause an allergic skin reaction. (formaldehyde%)

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

Suspected of causing genetic defects. (formaldehyde%)

May cause cancer. (formaldehyde%)

Reproductive toxicity: 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 hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards

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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                   |
| 64-19-7 | Acetic acid%             |            |           |         |                                 |                          |
|         | Acute fish toxicity      | LC50 mg/l  | >300      | 96 h    | Oncorhynchus mykiss             | ECHA Dossier             |
|         | Acute algae toxicity     | ErC50 mg/l | >300      | 72 h    | Skeletonema costatum            | ECHA Dossier             |
|         | Acute crustacea toxicity | EC50 mg/l  | >300      | 48 h    | Daphnia magna                   | ECHA Dossier             |
| 50-00-0 | formaldehyde%            |            |           |         |                                 |                          |
|         | Acute fish toxicity      | LC50 mg/l  | 24,1      | 96 h    | Pimephales promelas             | ECHA Dossier             |
|         | Acute algae toxicity     | ErC50 mg/l | 4,89      | 72 h    | Desmodesmus subspicatus         | ECHA Dossier             |
|         | Acute crustacea toxicity | EC50       | 5,8 mg/l  | 48 h    | Daphnia pulex (water flea)      | ECHA Dossier             |
| 67-56-1 | methanol                 |            |           |         |                                 |                          |
|         | Acute fish toxicity      | LC50 mg/l  | 15400     | 96 h    | Lepomis macrochirus             | ECHA Dossier             |
|         | Acute algae toxicity     | ErC50 mg/l | 22000     | 96 h    | Pseudokirchneriella subcapitata | ECHA Dossier             |
|         | Acute crustacea toxicity | EC50 mg/l  | >1000     | 48 h    | Daphnia magna                   | ECHA Dossier<br>OECD 202 |

**12.2. Persistence and degradability**

The product has not been tested.

| CAS No  | Chemical name   |       |    |                |
|---------|---|-------|----|----------------|
|         | Method  | Value | d  | Source         |
|         | Evaluation  |       |    |                |
| 64-19-7 | Acetic acid%  |       |    |                |
|         | Other guideline   | 95%   | 5  | suppliers SDS. |
|         | Easily biodegradable (concerning to the criteria of the OECD) |       |    |                |
| 50-00-0 | formaldehyde%   |       |    |                |
|         | 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.

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#### Partition coefficient n-octanol/water

| CAS No  | Chemical name | Log Pow |
|---------|---------------|---------|
| 64-19-7 | Acetic acid%  | -0,17   |
| 50-00-0 | formaldehyde% | 0,35    |
| 67-56-1 | methanol      | -0,77   |

#### BCF

| CAS No  | Chemical name | BCF  | Species | Source |
|---------|---------------|------|---------|--------|
| 64-19-7 | Acetic acid%  | 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. Hazardous waste according to Directive 2008/98/EC (waste framework directive). Consult the local waste disposal expert about waste disposal. 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. Do not dry up the product. Risk of explosion in case of drying up.

##### 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. Non-contaminated packages may be recycled.

### SECTION 14: Transport information

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**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

**14.6. Special precautions for user**

See section 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 3, Entry 40, Entry 75

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:

Acetic acid%

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formaldehyde%  
methanol

#### SECTION 16: Other information

##### Changes

This data sheet contains changes from the previous version in section(s): 2,4,7,8,13,14,15,16.

Rev. 2,00; 22.05.2023, Individual safety data sheet based on10153\_collect

Rev. 2,1; 24.07.2023; general adjustment(s)

Rev. 2,2; 26.03.2024; Change of transport labelling

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**Abbreviations and acronyms**

Expl: Explosives  
Flam. Liq: Flammable liquids  
Acute Tox: Acute toxicity  
Skin Corr: Skin corrosion  
Eye Dam: Eye damage  
Skin Sens: Skin sensitisation  
Muta: Germ cell mutagenicity  
Carc: Carcinogenicity  
STOT SE: Specific target organ toxicity - single exposure  
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: Wassergefaehrdungsklasse  
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  
NOEC: No Observed Effect Concentration

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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>  
 For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety  
 assessment, chapter R.20 (Table of terms and abbreviations).  
 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

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

| Classification     | Classification procedure |
|--------------------|--------------------------|
| Acute Tox. 4; H302 | Calculation method       |
| Skin Corr. 1; H314 | On basis of test data    |
| Eye Dam. 1; H318   | On basis of test data    |
| Skin Sens. 1; H317 | Calculation method       |
| Muta. 2; H341      | Calculation method       |
| Carc. 1B; H350     | Calculation method       |

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

|      |  |
|------|--|
| H201 | Explosive; mass explosion hazard.        |
| H225 | Highly flammable liquid and vapour.      |
| H226 | Flammable liquid and vapour.             |
| H301 | Toxic if swallowed.                      |
| H302 | Harmful 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.               |
| H331 | Toxic if inhaled.                        |
| H341 | Suspected of causing genetic defects.    |
| H350 | May cause cancer.                        |
| H370 | Causes damage to organs.                 |

**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): -

Classification procedure:

Health hazards: Calculation method.

Environmental hazards: Calculation method.



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