

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Prüf­flüssigkeit gemäß GS-97034-12

Revision date: 16.10.2020

Product code:

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

#### 1.1. Product identifier

Prüf­flüssigkeit gemäß GS-97034-12

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

##### Use of the substance/mixture

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:           | Thierry GmbH  |            |   |
| Street:                 | Motorstrasse 30   |            |   |
| Place:                  | D-70499 Stuttgart   |            |   |
| Telephone:              | +49 (0)711 8399 7470  | Telefax:   | +49 (0)711 8399 7480  |
| e-mail:                 | info@thierry-gmbh.de  |            |   |
| Contact person:         | Veronika Krieger  | Telephone: | 0711/839974-0   |
| Internet:               | www.thierry-gmbh.de   |            |   |
| Responsible Department: | Dr. Gans-Eichler<br>Chemieberatung GmbH<br>Otto-Hahn-Str. 36<br>D-48161 Münster | e-mail:    | info@tge-consult.de<br>Tel.: +49(0)2534 6441185<br>www.tge-consult.de |

#### 1.4. Emergency telephone number:

Emergency medical information: Poison Information Center Mainz - Tel: +49 (6131) 19240

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

#### 2.2. Label elements

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

##### Special labelling of certain mixtures

|        |  |
|--------|--|
| EUH208 | Contains 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one. May produce an allergic reaction. |
| EUH210 | Safety data sheet available on request.  |

#### 2.3. Other hazards

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

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

| CAS No   | Chemical name                         | Quantity   |
|----------|---------------------------------------|------------|
|          | EC No                                 |            |
|          | Index No                              |            |
|          | REACH No                              |            |
|          | GHS Classification                    |            |
| 64-17-5  | ethanol, ethyl alcohol                | 7 - < 10 % |
|          | 200-578-6                             |            |
|          | 603-002-00-5                          |            |
|          | 01-2119457610-43                      |            |
|          | Flam. Liq. 2, Eye Irrit. 2; H225 H319 |            |
| 111-46-6 | 2,2'-oxybisethanol; diethylene glycol | < 1,25 %   |

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|          |   |              |                  |           |
|----------|---|--------------|------------------|-----------|
|          | 203-872-2   | 603-140-00-6 | 01-2119457857-21 |           |
|          | Acute Tox. 4; H302  |              |                  |           |
| 111-76-2 | 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve                               |              |                  | < 1, 25 % |
|          | 203-905-0   | 603-014-00-0 | 01-2119475108-36 |           |
|          | Acute Tox. 3, Acute Tox. 3, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2; H331 H311 H302 H315 H319 |              |                  |           |

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

### Specific concentration limits and M-factors

| CAS No  | EC No     | Chemical name                               | Quantity   |
|---------|-----------|---|------------|
|         |           | Specific concentration limits and M-factors |            |
| 64-17-5 | 200-578-6 | ethanol, ethyl alcohol                      | 7 - < 10 % |
|         |           | Eye Irrit. 2; H319: >= 50 - 100             |            |

### Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

#### After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

#### After contact with eyes

Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

#### After ingestion

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

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

No information available.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. alcohol resistant foam. Atomized water.

#### Unsuitable extinguishing media

High power water jet.

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

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

### 5.3. Advice for firefighters

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

### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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Co-ordinate fire-fighting measures to the fire surroundings.

### SECTION 6: Accidental release measures

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

Safe handling: see section 7

Personal protection equipment: see section 8

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

Discharge into the environment must be avoided.

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

Clean contaminated objects and areas thoroughly observing environmental regulations.

#### **6.4. Reference to other sections**

Disposal: see section 13

### SECTION 7: Handling and storage

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Wear suitable protective clothing. (See section 8.)

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

Usual measures for fire prevention.

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

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 in a cool, well-ventilated place.

##### **Hints on joint storage**

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

##### **Further information on storage conditions**

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

Recommended storage temperature: 20°C

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

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

See section 1.

### SECTION 8: Exposure controls/personal protection

#### **8.1. Control parameters**

##### **Exposure limits (EH40)**

| CAS No   | Substance                      | ppm  | mg/m <sup>3</sup> | fibres/ml | Category      | Origin |
|----------|--------------------------------|------|-------------------|-----------|---------------|--------|
| 111-46-6 | 2,2'-Oxydiethanol              | 23   | 101               |           | TWA (8 h)     | WEL    |
| 111-76-2 | 2-Butoxyethanol                | 25   | 123               |           | TWA (8 h)     | WEL    |
|          |                                | 50   | 246               |           | STEL (15 min) | WEL    |
| 64-17-5  | Ethanol                        | 1000 | 1920              |           | TWA (8 h)     | WEL    |
| 57-55-6  | Propane-1,2-diol, particulates | -    | 10                |           | TWA (8 h)     | WEL    |

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#### Biological Monitoring Guidance Values (EH40)

| CAS No   | Substance       | Parameter                      | Value        | Test material | Sampling time |
|----------|-----------------|--------------------------------|--------------|---------------|---------------|
| 111-76-2 | 2-Butoxyethanol | butoxyacetic acid (creatinine) | 240 mmol/mol | urine         | Post shift    |

#### DNEL/DMEL values

| CAS No   | Substance   | Exposure route | Effect   | Value                  |
|----------|---|----------------|----------|------------------------|
| 64-17-5  | ethanol, ethyl alcohol  |                |          |                        |
|          | Worker DNEL, acute  | inhalation     | local    | 1900 mg/m <sup>3</sup> |
|          | Worker DNEL, long-term  | dermal         | systemic | 343 mg/kg bw/day       |
|          | Worker DNEL, long-term  | inhalation     | systemic | 950 mg/m <sup>3</sup>  |
|          | Consumer DNEL, acute  | inhalation     | local    | 950 mg/m <sup>3</sup>  |
|          | Consumer DNEL, long-term  | dermal         | systemic | 206 mg/kg bw/day       |
|          | Consumer DNEL, long-term  | inhalation     | systemic | 114 mg/m <sup>3</sup>  |
|          | Consumer DNEL, long-term  | oral           | systemic | 87 mg/kg bw/day        |
| 111-76-2 | 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve |                |          |                        |
|          | Worker DNEL, long-term  | inhalation     | systemic | 98 mg/m <sup>3</sup>   |
|          | Worker DNEL, acute  | inhalation     | systemic | 1091 mg/m <sup>3</sup> |
|          | Worker DNEL, acute  | inhalation     | local    | 246 mg/m <sup>3</sup>  |
|          | Worker DNEL, long-term  | dermal         | systemic | 125 mg/kg bw/day       |
|          | Worker DNEL, acute  | dermal         | systemic | 89 mg/kg bw/day        |
|          | Consumer DNEL, long-term  | oral           | systemic | 6,3 mg/kg bw/day       |
|          | Consumer DNEL, acute  | oral           | systemic | 26,7 mg/kg bw/day      |
|          | Consumer DNEL, long-term  | inhalation     | systemic | 59 mg/m <sup>3</sup>   |
|          | Consumer DNEL, acute  | inhalation     | systemic | 426 mg/m <sup>3</sup>  |
|          | Consumer DNEL, acute  | inhalation     | local    | 147 mg/m <sup>3</sup>  |
|          | Consumer DNEL, long-term  | dermal         | systemic | 75 mg/kg bw/day        |
|          | Consumer DNEL, acute  | dermal         | systemic | 89 mg/kg bw/day        |

#### PNEC values

| CAS No  | Substance  | Value      |
|---------|--|------------|
|         | Environmental compartment                        |            |
| 64-17-5 | ethanol, ethyl alcohol                           |            |
|         | Freshwater                                       | 0,96 mg/l  |
|         | Freshwater (intermittent releases)               | 2,75 mg/l  |
|         | Marine water                                     | 0,79 mg/l  |
|         | Marine water (intermittent releases)             | 2,75 mg/l  |
|         | Freshwater sediment                              | 3,6 mg/kg  |
|         | Marine sediment                                  | 2,9 mg/kg  |
|         | Secondary poisoning                              | 0,72 mg/kg |
|         | Micro-organisms in sewage treatment plants (STP) | 580 mg/l   |
|         | Soil   | 0,63 mg/kg |

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| 111-76-2   | 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve |            |
| Freshwater                                       |   | 8,8 mg/l   |
| Freshwater (intermittent releases)               |   | 9,1 mg/l   |
| Marine water                                     |   | 0,88 mg/l  |
| Freshwater sediment                              |   | 34,6 mg/kg |
| Marine sediment                                  |   | 3,46 mg/kg |
| Secondary poisoning                              |   | 0,02 mg/kg |
| Micro-organisms in sewage treatment plants (STP) |   | 463 mg/l   |
| Soil   |   | 2,33 mg/kg |

### 8.2. Exposure controls



#### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation.

#### Protective and hygiene measures

Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

#### Eye/face protection

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

#### Hand protection

In case of prolonged or frequently repeated skin contact:

Wear suitable gloves.

Suitable material:

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

Breakthrough time  $\geq$  8 h

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

Breakthrough time  $\geq$  8 h

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

Breakthrough time  $\geq$  8 h

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

Breakthrough time  $\geq$  8 h

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

Breakthrough time  $\geq$  8 h

The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 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

Suitable protective clothing: Lab apron.

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

#### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

#### Environmental exposure controls

No special precautionary measures are necessary.

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## SECTION 9: Physical and chemical properties

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

|                 |                |
|-----------------|----------------|
| Physical state: | liquid         |
| Colour:         | not determined |
| Odour:          | characteristic |

#### Test method

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

#### Changes in the physical state

|  |                |
|--|----------------|
| Melting point:                           | not determined |
| Initial boiling point and boiling range: | not determined |
| Sublimation point:                       | not determined |
| Softening point:                         | not determined |
| Pour point:                              | not determined |

|                        |                           |           |
|------------------------|---------------------------|-----------|
| Flash point:           | > 50 °C                   | estimated |
| Sustaining combustion: | Not sustaining combustion | estimated |

#### Explosive properties

none

|                         |                        |
|-------------------------|------------------------|
| Lower explosion limits: | 3,5 (Ethanol. ) vol. % |
|-------------------------|------------------------|

|                         |                       |
|-------------------------|-----------------------|
| Upper explosion limits: | 15 (Ethanol. ) vol. % |
|-------------------------|-----------------------|

|                       |                |
|-----------------------|----------------|
| Ignition temperature: | not determined |
|-----------------------|----------------|

#### Auto-ignition temperature

Gas:

not determined

|                            |                |
|----------------------------|----------------|
| Decomposition temperature: | not determined |
|----------------------------|----------------|

#### Oxidizing properties

none

|                  |                |
|------------------|----------------|
| Vapour pressure: | not determined |
|------------------|----------------|

|          |                             |           |
|----------|-----------------------------|-----------|
| Density: | 0,9 - 1,0 g/cm <sup>3</sup> | estimated |
|----------|-----------------------------|-----------|

|                   |                |
|-------------------|----------------|
| Water solubility: | not determined |
|-------------------|----------------|

#### Solubility in other solvents

not determined

|                        |                |
|------------------------|----------------|
| Partition coefficient: | not determined |
|------------------------|----------------|

|                      |                |
|----------------------|----------------|
| Viscosity / dynamic: | not determined |
|----------------------|----------------|

|                        |                |
|------------------------|----------------|
| Viscosity / kinematic: | not determined |
|------------------------|----------------|

|            |                |
|------------|----------------|
| Flow time: | not determined |
|------------|----------------|

|                 |                |
|-----------------|----------------|
| Vapour density: | not determined |
|-----------------|----------------|

|                   |                |
|-------------------|----------------|
| Evaporation rate: | not determined |
|-------------------|----------------|

|                          |                |
|--------------------------|----------------|
| Solvent separation test: | not determined |
|--------------------------|----------------|

|                  |              |
|------------------|--------------|
| Solvent content: | >80 % Water. |
|------------------|--------------|

### 9.2. Other information

|                |                |
|----------------|----------------|
| Solid content: | not determined |
|----------------|----------------|

## SECTION 10: Stability and reactivity

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### 10.1. Reactivity

No information available.

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

Refer to chapter 10.5.

### 10.4. Conditions to avoid

Protect against: UV-radiation/sunlight. heat.

### 10.5. Incompatible materials

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong.

### 10.6. Hazardous decomposition products

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicokinetics, metabolism and distribution

No data available.

#### Acute toxicity

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

| CAS No   | Chemical name   |                        |  |                      |                    |
|----------|---|------------------------|--|----------------------|--------------------|
|          | Exposure route  | Dose                   | Species                                | Source               | Method             |
| 64-17-5  | ethanol, ethyl alcohol  |                        |  |                      |                    |
|          | oral  | LD50 >5000 mg/kg       | Rat                                    | ECHA dossier         |                    |
|          | inhalation (4 h) vapour   | LC50 124,7 mg/l        | Rat                                    | ECHA dossier         |                    |
| 111-46-6 | 2,2'-oxybisethanol; diethylene glycol                             |                        |  |                      |                    |
|          | oral  | LD50 1490 mg/kg        | Practical experience/human experience. | O'Brien et al., 1998 |                    |
|          | dermal  | LD50 11890 mg/kg       | Rabbit                                 |                      |                    |
| 111-76-2 | 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve |                        |  |                      |                    |
|          | oral  | LD50 1200 – 1414 mg/kg | Guinea-pig.                            | ECHA Dossier/RAC     | OECD Guideline 401 |
|          | dermal  | LD50 =< 2000 mg/kg     | Rabbit/Guinea-pig.                     | ECHA Dossier/RAC     | OECD Guideline 402 |
|          | inhalation (4 h) vapour   | LC50 3 mg/l            | Rat. (2.21 – 4.92 mg/L)                | ECHA Dossier/RAC     | OECD Guideline 403 |
|          | inhalation aerosol  | ATE 0,5 mg/l           |  |                      |                    |

#### Irritation and corrosivity

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

Irritant effect on the skin: slightly irritant but not relevant for classification.

Ethanol.: Specific concentration limit (SCL): Eye Irrit. 2 > 50%

#### Sensitising effects

Contains 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

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

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

Ethanol. (CAS-No.: 64-17-5):

In-vitro mutagenicity: No experimental indications of mutagenicity in-vitro exist.

Reproductive toxicity: Exposure time: 18 weeks; Species: CD-1 Mouse. Method: OECD Guideline 416; Result: NOAEL = 20700 mg/kg/day. Developmental toxicity/teratogenicity: Exposure time: 19d; Species: Sprague-Dawley Rat. Method: OECD Guideline 414; Result: NOAEL = 16000 ppm (maternal toxicity), Result: NOAEL >= 20000 ppm (teratogenicity); Literature information: ECHA Dossier

2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS-No.: 111-76-2):

In-vitro mutagenicity: Method: OECD Guideline 476 (In Vitro Mammalian Cell Gene Mutation Test); Result:

negative. ; Literature information: ECHA dossier; Carcinogenicity: Method: OECD Guideline 451

(Carcinogenicity Studies); Species: Mouse. ; Exposure duration: 2 years; Result: NOAEC = 125 ppm; Literature

information: ECHA dossier; Reproductive toxicity: Method: other guideline: National Toxicology Programme

Continuous Breeding Protocol ; Species: Mouse. ; Exposure duration: 90 d. Results: NOAEL = 720 mg/kg;

Literature information: ECHA dossier; Developmental toxicity/teratogenicity: Method: OECD Guideline 414

(Prenatal Developmental Toxicity Study); Species: Rabbit.; Exposure duration: 13 d. Results: NOAEL = 100

ppm. Literature information: ECHA dossier

2,2'-oxybisethanol; diethylene glycol:

In-vitro mutagenicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay); Result: negative.

Literature information: ECHA dossier; Carcinogenicity: Method: -; Species: Rat; Length of test: 2 years; Result:

LOAEL = 1160 mg/kg; Literature information: ECHA dossier; Developmental toxicity/teratogenicity: Method:

OECD Guideline 414 (Prenatal Developmental Toxicity Study); Species: Rabbit; Length of test: 30 d. Result:

NOAEL = 1000 mg/kg; Literature information: ECHA dossier; Reproductive toxicity: Method: -; Species: Mouse;

Result: NOAEL = 3060 mg/kg; Literature information: ECHA dossier

#### 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.

Ethanol. (CAS-No.: 64-17-5):

Subchronic oral toxicity: Exposure time: 90d; Species: Sprague-Dawley Rat. Method: OECD Guideline 408;

Result: NOAEL = 1280 mg/kg; Literature information: ECHA Dossier

2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS-No.: 111-76-2):

Subchronic oral toxicity: Method: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in

Rodents); Species: Rat ;Exposure duration: 90 d. Result: NOAEL =< 69 mg/kg; Literature information: ECHA

dossier; Subchronic dermal toxicity: Method: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-day Study);

Species: Rabbit (male/female).; Exposure duration: 90 d. Result: NOAEL => 150 mg/kg; Literature information:

ECHA dossier

2,2'-oxybisethanol; diethylene glycol:

Chronic oral toxicity: Method: -; Species:Rat;Results: NOAEL = 100 mg/kg; Literature information: ECHA

dossier

#### Aspiration hazard

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

#### Specific effects in experiment on an animal

No data available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ethanol. (CAS-No.: 64-17-5):

Acute earthworm toxicity: LC50 (48h) = <1mg/cm<sup>2</sup> (Eisenia fetida, non-guideline study)

Acute plant toxicity: EC50 (6d) = 11800 mg/l (Allium cepa, non-guideline study)

Sediment organisms: LC59 (18h) = 8200 mg/l (Hyallela sp, non-guideline study)



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| CAS No   | Chemical name   |              |                      |         |  |                                       |
|----------|---|--------------|----------------------|---------|--|---------------------------------------|
|          | Aquatic toxicity  | Dose         | [h]   [d]            | Species | Source                                 | Method                                |
| 64-17-5  | ethanol, ethyl alcohol  |              |                      |         |  |                                       |
|          | Acute fish toxicity   | LC50<br>mg/l | 14200                | 96 h    | Pimephales promelas                    | ECHA dossier                          |
|          | Acute algae toxicity  | ErC50        | 275 mg/l             | 72 h    | Chlorella vulgaris                     | ECHA dossier                          |
|          | Acute crustacea toxicity  | EC50<br>mg/l | 5012                 | 48 h    | Ceriodaphnia dubia                     | ECHA dossier                          |
|          | Crustacea toxicity  | NOEC<br>mg/l | (9,6)                | 9 d     | Daphnia magna                          | ECHA dossier                          |
| 111-46-6 | 2,2'-oxybisethanol; diethylene glycol                             |              |                      |         |  |                                       |
|          | Acute fish toxicity   | LC50<br>mg/l | 75200                | 96 h    | Pimephales promelas                    | REACH Dossier                         |
|          | Acute algae toxicity  | ErC50        | 6500 -<br>13000 mg/l | 96 h    | Pseudokirchneriella<br>subcapitata     | REACH Dossier<br>WoE                  |
|          | Acute crustacea toxicity  | EC50<br>mg/l | 62630                | 48 h    | Daphnia magna                          | REACH Dossier                         |
|          | Fish toxicity   | NOEC<br>mg/l | 15380                | 7 d     | Pimephales promelas                    | REACH Dossier<br>WoE                  |
|          | Crustacea toxicity  | NOEC<br>mg/l | 8590                 | 7 d     | Ceriodaphnia dubia                     | REACH Dossier<br>WoE                  |
| 111-76-2 | 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve |              |                      |         |  |                                       |
|          | Acute fish toxicity   | LC50<br>mg/l | 1474                 | 96 h    | Oncorhynchus mykiss<br>(Rainbow trout) | ECHA Dossier<br>OECD Guideline<br>203 |
|          | Acute algae toxicity  | ErC50        | 911 mg/l             | 72 h    | Pseudokirchneriella<br>subcapitata     | ECHA Dossier<br>OECD Guideline<br>201 |
|          | Acute crustacea toxicity  | EC50<br>mg/l | 1800                 | 48 h    | Daphnia magna                          | ECHA Dossier<br>OECD Guideline<br>202 |
|          | Fish toxicity   | NOEC<br>mg/l | >100                 | 21 d    | Danio rerio                            | ECHA Dossier<br>OECD Guideline<br>204 |
|          | Algae toxicity  | NOEC         | 88 mg/l              | 3 d     | Pseudokirchneriella<br>subcapitata     | ECHA Dossier                          |
|          | Crustacea toxicity  | NOEC         | 100 mg/l             | 21 d    | Daphnia magna                          | ECHA Dossier<br>OECD Guideline<br>211 |

**12.2. Persistence and degradability**

Ethanol. (CAS-No.: 64-17-5):

Chemical Oxygen Demand (COD): CSB = 1900 mg/g

Biochemical oxygen demand (BOD): BSB5 = 1000 mg/g

Abiotic degradation in water: Hydrolysis t 1/2 (20°C, pH 7) = &gt;1 - &lt;36 a.

Abiotic degradation in Air t 1/2 (Air.) = 38 d; 1/2 (Air. 100 ppm NO2) = 11,5 h

| CAS No   | Chemical name   |       |    |              |
|----------|---|-------|----|--------------|
|          | Method  | Value | d  | Source       |
|          | Evaluation  |       |    |              |
| 64-17-5  | ethanol, ethyl alcohol  |       |    |              |
|          | other guideline:  | 84%   | 20 | ECHA dossier |
|          | Biodegradable.  |       |    |              |
| 111-76-2 | 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve |       |    |              |
|          | OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C                   | 90,4% | 28 | ECHA Dossier |
|          | Easily biodegradable (concerning to the criteria of the OECD)     |       |    |              |

**12.3. Bioaccumulative potential**

No indication of bioaccumulation potential.

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### Partition coefficient n-octanol/water

| CAS No   | Chemical name   | Log Pow |
|----------|---|---------|
| 64-17-5  | ethanol, ethyl alcohol  | -0,31   |
| 111-46-6 | 2,2'-oxybisethanol; diethylene glycol                             | -1,98   |
| 111-76-2 | 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve | 0,81    |

### BCF

| CAS No   | Chemical name                         | BCF | Species                  | Source              |
|----------|---------------------------------------|-----|--------------------------|---------------------|
| 111-46-6 | 2,2'-oxybisethanol; diethylene glycol | 100 | Leuciscus idus melanotus | Chemosphere 14(10): |

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

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

### 12.6. Other adverse effects

No data available.

### Further information

Do not allow to enter into surface water or drains.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

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

160306 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes other than those mentioned in 16 03 05

#### List of Wastes Code - used product

160306 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes other than those mentioned in 16 03 05

#### List of Wastes Code - contaminated packaging

150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); mixed packaging

#### Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

## SECTION 14: Transport information

### Land transport (ADR/RID)

#### 14.1. UN 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.

### Inland waterways transport (ADN)

#### 14.1. UN 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.

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**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.

#### Marine transport (IMDG)

**14.1. UN 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.

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

**14.1. UN 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.

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

#### 14.6. Special precautions for user

Refer to section 6-8

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

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: 2,2'-oxybisethanol; diethylene glycol

Entry 40: ethanol, ethyl alcohol

2010/75/EU (VOC): No information available.

2004/42/EC (VOC): No information available.

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

##### Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

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

REACH 1907/2006 Appendix XVII, No (mixture): not relevant

##### National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

#### 15.2. Chemical safety assessment

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

ethanol, ethyl alcohol

2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve

### SECTION 16: Other information

#### Changes

Rev. 1.00; Neuerstellung, 16.10.2020

#### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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CAS Chemical Abstracts Service  
 CLP: Classification, Labelling and Packaging of substances and mixtures  
 DNEL: Derived No Effect Level  
 d: day(s)  
 EINECS: European INventory of Existing Commercial chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 ECHA: European Chemicals Agency  
 EWC: European Waste Catalogue  
 IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
 ICAO: International Civil Aviation Organization  
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
 GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)  
 h: hour  
 LOAEL: Lowest observed adverse effect level  
 LOAEC: Lowest observed adverse effect concentration  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 NOAEL: No observed adverse effect level  
 NOAEC: No observed adverse effect concentration  
 NLP: No-Longer Polymers  
 N/A: not applicable  
 OECD: Organisation for Economic Co-operation and Development  
 PNEC: predicted no effect concentration  
 PBT: Persistent bioaccumulative toxic  
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail )  
 REACH: Registration, Evaluation, Authorisation of Chemicals  
 SVHC: substance of very high concern  
 TRGS: Technische Regeln für Gefahrstoffe  
 UN: United Nations  
 VOC: Volatile Organic Compounds

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

|        |  |
|--------|--|
| H225   | Highly flammable liquid and vapour.  |
| H302   | Harmful if swallowed.  |
| H311   | Toxic in contact with skin.  |
| H315   | Causes skin irritation.  |
| H319   | Causes serious eye irritation.   |
| H331   | Toxic if inhaled.  |
| EUH208 | Contains 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one. May produce an allergic reaction. |
| EUH210 | Safety data sheet available on request.  |

#### Further Information

Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:  
 Health hazards: Calculation method.  
 Environmental hazards: Calculation method.  
 Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be

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transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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