

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2

Page 1/17



Zinc 240 500ml

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

1.1. Product identifier

Trade name/designation:

Zinc 240 500ml

Article No.:

T111002

UFI:

XM56-D9EK-31NQ-JOMD

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

Use of the substance/mixture:

Aerosol coating

1.3. Details of the supplier of the safety data sheet

Supplier:

KANDO Service GmbH

Hartleitnerstraße 3

4653 Eberstalzell

Austria

Telephone: +43 (0) 7241 213 79

E-mail: msds@kando.eu

1.4. Emergency telephone number

Vergiftungsinformationszentrale (VIZ), Stubenring 6, 1010 Wien, 24h: 01 406 43 43, Montag - Freitag: 8 bis 16 Uhr, Tel.: 01 406 68 98 (keine medizinische Auskunft) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

| Hazard classes and hazard categories | Hazard statements | Classification procedure |
|---|--|--------------------------|
| Hazardous to the aquatic environment (Aquatic Acute 1) | H400: Very toxic to aquatic life. | |
| Hazardous to the aquatic environment (Aquatic Chronic 1) | H410: Very toxic to aquatic life with long lasting effects. | |
| Serious eye damage/eye irritation (Eye Irrit. 2) | H319: Causes serious eye irritation. | |
| STOT-single exposure (STOT SE 3) | H336: May cause drowsiness or dizziness. | |
| Aerosols (Aerosol 1) | H222; H229: Extremely flammable aerosol. Pressurised container: May burst if heated. | |

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:



GHS09
Environment



GHS07
Exclamation mark



GHS02
Flame

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2

Page 2/17



Zinc 240 500ml

Signal word: Danger

Hazard components for labelling:

Acetone; Hydrocarbons, C9, aromatics; propan-2-ol

Hazard statements for physical hazards

| | |
|------|---|
| H222 | Extremely flammable aerosol. |
| H229 | Pressurised container: May burst if heated. |

Hazard statements for health hazards

| | |
|------|------------------------------------|
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |

Hazard statements for environmental hazards

| | |
|------|---|
| H410 | Very toxic to aquatic life with long lasting effects. |
|------|---|

Supplemental hazard information

| | |
|--------|---|
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
|--------|---|

Precautionary statements Prevention

| | |
|------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source. |
| P251 | Do not pierce or burn, even after use. |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. |

Precautionary statements Response

| | |
|--------------------|--|
| P304 + P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P312 | Call a POISON CENTER if you feel unwell. |

Precautionary statements Storage

| | |
|-------------|--|
| P403 | Store in a well-ventilated place. |
| P410 + P412 | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. |

Precautionary statements Disposal

| | |
|------|---|
| P501 | Dispose of contents/container to an appropriate recycling or disposal facility. |
|------|---|

2.3. Other hazards

Other adverse effects:

The product does not meet the PBT/vPvB criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Description:

Active ingredient mixture with propellant gas

Additional information:

Aerosols and containers fitted with a solid nebuliser containing substances or mixtures classified as hazardous by aspiration must not be labelled for this hazard.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2



Page 3/17

Zinc 240 500ml

Hazardous ingredients / Hazardous impurities / Stabilisers:

| Product identifiers | Substance name Classification according to Regulation (EC) No 1272/2008 [CLP] | Concentration |
|--|--|-----------------|
| CAS No.: 115-10-6 EC No.: 204-065-8 REACH No.: 01-2119472128-37 | dimethyl ether Flam. Gas 1A (H220), Press. Gas (Liq.) (H280) Danger | 25 - < 50 % |
| CAS No.: 7440-66-6 EC No.: 231-175-3 Index No.: 030-001-01-9 REACH No.: 01-2119467174-37 | Zinkpulver - Zinkstaub (stabilisiert) Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410) Warning | 25 - < 50 % |
| CAS No.: 67-64-1 Index No.: 606-001-00-8 REACH No.: 01-2119471330-49 | Acetone Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336) Danger EUH066 | 10 - < 25 % |
| CAS No.: 128601-23-0 EC No.: 918-668-5 REACH No.: 01-2119455851-35 | Hydrocarbons, C9, aromatics Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), Flam. Liq. 3 (H226), STOT SE 3 (H335, H336) Danger | 2.5 - < 10 % |
| EC No.: 905-588-0 REACH No.: 01-2119488216-32 | Reaction mass of ethylbenzene and xylene Acute Tox. 4 (H312, H332), Asp. Tox. 1 (H304), Eye Irrit. 2 (H319), Flam. Liq. 3 (H226), STOT RE 2 (H373), STOT SE 3 (H335), Skin Irrit. 2 (H315) Danger | 2.5 - < 10 % |
| CAS No.: 1314-13-2 EC No.: 215-222-5 Index No.: 030-013-00-7 REACH No.: 01-2119463881-32 | zinc oxide Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410) Warning | 1 - < 2.5 % |
| CAS No.: 67-63-0 EC No.: 200-661-7 Index No.: 603-117-00-0 REACH No.: 01-2119457558-25 | propan-2-ol Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336) Danger | 1 - < 2.5 % |

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Following inhalation:

Fresh air supply, consult a doctor in case of complaints.

In case of skin contact:

In general, the product is not irritating to skin.

After eye contact:

Rinse opened eye for several minutes under running water. Consult a doctor if symptoms persist

Following ingestion:

Do not induce vomiting, seek medical help immediately.

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

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water mist, Extinguishing powder, Carbon dioxide, alcohol resistant foam

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2



Page 4/17

Zinc 240 500ml

Unsuitable extinguishing media:

Water in full jet

5.2. Special hazards arising from the substance or mixture

No further relevant information available.

5.3. Advice for firefighters

Special protective equipment: Put on breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Wear protective equipment. Keep unprotected persons away.

6.1.2. For emergency responders

No data available

6.2. Environmental precautions

Do not allow to enter into surface water or drains. In case of spillage into water or sewage system, inform the competent authorities.

6.3. Methods and material for containment and cleaning up

For cleaning up:

Do not wash away with water or aqueous detergents.

Other information:

Provide adequate ventilation.

6.4. Reference to other sections

Further information on proper storage: see section 7.

For further information on personal protective equipment: see section 8.

For further information on disposal: see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Ensure good ventilation/extraction at the workplace.

Fire prevent measures:

Do not spray on naked flames or any incandescent material. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Container is under pressure. Protect from sunlight and temperatures above 50°C (e.g. from incandescent lamps). Do not open by force or burn even after use.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

Store in a cool place. The official regulations for the storage of pressurised gas packages must be observed.

Hints on storage assembly:

The official regulations for the storage of pressurised gas packages must be observed.

Storage class (TRGS 510, Germany): 2B - Aerosol dispensers and lighters

Further information on storage conditions:

Store in a cool, dry place in well-sealed containers. Protect from heat and direct sunlight.

7.3. Specific end use(s)

Recommendation:

No further relevant information available.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2



Page 5/17

Zinc 240 500ml

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

| Limit value type (country of origin) | Substance name | ① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark |
|--------------------------------------|---|--|
| MAK (AT) | dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8 | ① 1,000 ppm (1,910 mg/m ³) |
| MAK (AT) | dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8 | ② 2,000 ppm (3,820 mg/m ³) ⑤ (max. 3x60 min./Schicht, Momentanwert) |
| IOELV (EU) | dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8 | ① 1,000 ppm (1,920 mg/m ³) |
| MAK (AT) | Acetone CAS No.: 67-64-1 | ② 2,000 ppm (4,800 mg/m ³) ⑤ (max. 4x15 min./Schicht) |
| IOELV (EU) | Acetone CAS No.: 67-64-1 | ① 500 ppm (1,210 mg/m ³) |
| MAK (AT) | Acetone CAS No.: 67-64-1 | ① 500 ppm (1,200 mg/m ³) |
| MAK (AT) | zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 | ① 5 mg/m ³ ⑤ (alveolengängige Fraktion) |
| MAK (AT) | propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 | ② 800 ppm (2,000 mg/m ³) ⑤ (max. 4x15 min./Schicht) |
| MAK (AT) | propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 | ① 200 ppm (500 mg/m ³) |

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

| Substance name | DNEL value | ① DNEL type ② Exposure route |
|---|-------------------------|---|
| dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8 | 1,894 mg/m ³ | ① DNEL worker ② Long-term - inhalation, systemic effects |
| dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8 | 471 mg/m ³ | ① DNEL Consumer ② Long-term - inhalation, systemic effects |
| Zinkpulver - Zinkstaub (stabilisiert) CAS No.: 7440-66-6 EC No.: 231-175-3 | 5 mg/m ³ | ① DNEL worker ② Long-term - inhalation, systemic effects |
| Zinkpulver - Zinkstaub (stabilisiert) CAS No.: 7440-66-6 EC No.: 231-175-3 | 2.5 mg/m ³ | ① DNEL Consumer ② Long-term - inhalation, systemic effects |
| Zinkpulver - Zinkstaub (stabilisiert) CAS No.: 7440-66-6 EC No.: 231-175-3 | 5,000 mg/kg bw/day | ① DNEL worker ② Long-term - dermal, systemic effects |
| Zinkpulver - Zinkstaub (stabilisiert) CAS No.: 7440-66-6 EC No.: 231-175-3 | 5,000 mg/kg bw/day | ① DNEL Consumer ② Long-term - dermal, systemic effects |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2



Page 6/17

Zinc 240 500ml

| Substance name | DNEL value | ① DNEL type ② Exposure route |
|---|-------------------------|---|
| Zinkpulver - Zinkstaub (stabilisiert) CAS No.: 7440-66-6 EC No.: 231-175-3 | 50 mg/kg bw/ day | ① DNEL worker ② Long-term - oral, systemic effects |
| Acetone CAS No.: 67-64-1 | 1,210 mg/m ³ | ① DNEL worker ② Long-term - inhalation, systemic effects |
| Acetone CAS No.: 67-64-1 | 200 mg/m ³ | ① DNEL Consumer ② Long-term - inhalation, systemic effects |
| Acetone CAS No.: 67-64-1 | 2,420 mg/m ³ | ① DNEL worker ② Long-term - inhalation, local effects |
| Acetone CAS No.: 67-64-1 | 186 mg/kg bw/ day | ① DNEL worker ② Long-term - dermal, systemic effects |
| Acetone CAS No.: 67-64-1 | 62 mg/kg bw/ day | ① DNEL Consumer ② Long-term - dermal, systemic effects |
| Acetone CAS No.: 67-64-1 | 62 mg/kg bw/ day | ① DNEL Consumer ② Long-term - oral, systemic effects |
| Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5 | 100 mg/m ³ | ① DNEL worker ② Long-term - inhalation, systemic effects |
| Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5 | 32 mg/m ³ | ① DNEL Consumer ② Long-term - inhalation, systemic effects |
| Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5 | 25 mg/kg bw/ day | ① DNEL worker ② Long-term - dermal, systemic effects |
| Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5 | 11 mg/kg bw/ day | ① DNEL Consumer ② Long-term - dermal, systemic effects |
| Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5 | 11 mg/kg bw/ day | ① DNEL Consumer ② Long-term - oral, systemic effects |
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 | 77 mg/m ³ | ① DNEL worker ② Long-term - inhalation, systemic effects |
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 | 14.8 mg/m ³ | ① DNEL Consumer ② Long-term - inhalation, systemic effects |
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 | 289 mg/m ³ | ① DNEL worker ② Acute - inhalation, local effects |
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 | 180 mg/kg bw/ day | ① DNEL worker ② Long-term - dermal, systemic effects |
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 | 108 mg/kg bw/ day | ① DNEL Consumer ② Long-term - dermal, systemic effects |
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 | 1.6 mg/kg bw/ day | ① DNEL Consumer ② Long-term - oral, systemic effects |
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 | 5 mg/m ³ | ① DNEL worker ② Long-term - inhalation, systemic effects |
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 | 2.5 mg/m ³ | ① DNEL Consumer ② Long-term - inhalation, systemic effects |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2



Page 7/17

Zinc 240 500ml

| Substance name | DNEL value | ① DNEL type ② Exposure route |
|--|-----------------------|---|
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 | 0.5 mg/m ³ | ① DNEL worker ② Long-term - inhalation, local effects |
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 | 83 mg/kg bw/day | ① DNEL worker ② Long-term - dermal, systemic effects |
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 | 83 mg/kg bw/day | ① DNEL Consumer ② Long-term - dermal, systemic effects |
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 | 0.83 mg/kg bw/day | ① DNEL Consumer ② Long-term - oral, systemic effects |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 | 500 mg/m ³ | ① DNEL worker ② Long-term - inhalation, systemic effects |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 | 89 mg/m ³ | ① DNEL Consumer ② Long-term - inhalation, systemic effects |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 | 888 mg/kg bw/day | ① DNEL worker ② Long-term - dermal, systemic effects |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 | 319 mg/kg bw/day | ① DNEL Consumer ② Long-term - dermal, systemic effects |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 | 26 mg/kg bw/day | ① DNEL Consumer ② Long-term - oral, systemic effects |

| Substance name | PNEC Value | ① PNEC type |
|---|-------------|--------------------------------------|
| dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8 | 0.155 mg/L | ① PNEC aquatic, freshwater |
| dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8 | 0.016 mg/L | ① PNEC aquatic, marine water |
| dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8 | 0.681 mg/kg | ① PNEC sediment, freshwater |
| dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8 | 0.069 mg/kg | ① PNEC sediment, marine water |
| dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8 | 0.045 mg/kg | ① PNEC soil |
| dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8 | 1.549 mg/L | ① PNEC aquatic, intermittent release |
| Zinkpulver - Zinkstaub (stabilisiert) CAS No.: 7440-66-6 EC No.: 231-175-3 | 6.1 mg/L | ① PNEC aquatic, marine water |
| Zinkpulver - Zinkstaub (stabilisiert) CAS No.: 7440-66-6 EC No.: 231-175-3 | 52 mg/L | ① PNEC sewage treatment plant |
| Zinkpulver - Zinkstaub (stabilisiert) CAS No.: 7440-66-6 EC No.: 231-175-3 | 118 mg/L | ① PNEC sediment, freshwater |
| Zinkpulver - Zinkstaub (stabilisiert) CAS No.: 7440-66-6 EC No.: 231-175-3 | 56.5 mg/L | ① PNEC sediment, marine water |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2



Page 8/17

Zinc 240 500ml

| Substance name | PNEC Value | ① PNEC type |
|---|------------|-------------------------------|
| Zinkpulver - Zinkstaub (stabilisiert) CAS No.: 7440-66-6 EC No.: 231-175-3 | 56.6 mg/kg | ① PNEC soil |
| Acetone CAS No.: 67-64-1 | 10.6 mg/L | ① PNEC aquatic, freshwater |
| Acetone CAS No.: 67-64-1 | 1.06 mg/L | ① PNEC aquatic, marine water |
| Acetone CAS No.: 67-64-1 | 100 mg/L | ① PNEC sewage treatment plant |
| Acetone CAS No.: 67-64-1 | 30.4 mg/L | ① PNEC sediment, freshwater |
| Acetone CAS No.: 67-64-1 | 3.04 mg/L | ① PNEC sediment, marine water |
| Acetone CAS No.: 67-64-1 | 29.5 mg/kg | ① PNEC soil |
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 | 0.327 mg/L | ① PNEC aquatic, marine water |
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 | 6.58 mg/L | ① PNEC sewage treatment plant |
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 | 12.46 mg/L | ① PNEC sediment, freshwater |
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 | 12.46 mg/L | ① PNEC sediment, marine water |
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 | 2.31 mg/kg | ① PNEC soil |
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 | 6.1 mg/L | ① PNEC aquatic, marine water |
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 | 52 mg/L | ① PNEC sewage treatment plant |
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 | 117 mg/L | ① PNEC sediment, freshwater |
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 | 56.5 mg/L | ① PNEC sediment, marine water |
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 | 35.6 mg/kg | ① PNEC soil |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 | 140.9 mg/L | ① PNEC aquatic, freshwater |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 | 140.9 mg/L | ① PNEC aquatic, marine water |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 | 2,251 mg/L | ① PNEC sewage treatment plant |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 | 552 mg/kg | ① PNEC sediment, freshwater |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2

Page 9/17



Zinc 240 500ml

| Substance name | PNEC Value | ① PNEC type |
|---|------------|--------------------------------------|
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 | 552 mg/kg | ① PNEC sediment, marine water |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 | 28 mg/kg | ① PNEC soil |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 | 140.9 mg/L | ① PNEC aquatic, intermittent release |

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No further details. See section 7.

8.2.2. Personal protection equipment



Eye/face protection:

Safety goggles (EN-166)

Skin protection:

Hand protection:

Wear gloves for protection against chemicals according to EN 374.

Gloves / solvent resistant

Breakthrough times and swelling properties of the material must be taken into consideration.

Glove material:

The selection of a suitable glove depends not only on the material but also on other quality features and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of glove materials cannot be calculated in advance and must therefore be checked before use. Nitrilkautschuk Recommended material thickness: $\geq 0,5$ mm

Permeation time (maximum wear duration):

For continuous contact we recommend gloves with a breakthrough time of at least 240 minutes, with the preference for a breakthrough time greater than 480 minutes. For short term or splash protection we recommend the same. We are aware that suitable gloves offering this protection are not available. In this case, a shorter breakthrough time is permissible, provided the procedures for maintenance and timely replacement are followed. The thickness of the gloves is not a good measure of the resistance the gloves give against a chemical substance, as this depends on the exact composition of the material of the gloves. The exact breakthrough time should be checked with the glove manufacturer and adhered to.

Body protection:

Use protective suit. (EN-13034/6)

Antistatic, chemical and oil resistant clothing and safety shoes are recommended. (EN1149; EN340&EN ISO 13688 EN13034-6).

Respiratory protection:

BEI insufficient ventilation Respiratory protection Filter A2/P2

Other protection measures:

General protective and hygienic measures: Keep away from food, drink and animal feed. Remove contaminated, saturated clothing immediately. Wash hands before breaks and after work. Avoid contact with eyes and skin. General ventilation.

8.2.3. Environmental exposure controls

Use a suitable container to prevent environmental pollution.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Aerosol

Colour: grey

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2



Page 10/17

Zinc 240 500ml

Odour: characteristic

Safety relevant basis data

| Parameter | Value | at °C | ① Method ② Remark |
|--|--------------------------|-------|---|
| pH | <i>not applicable</i> | | ② Mixture is not polar/aprotic. |
| Initial boiling point and boiling range | -24.8 °C | | |
| Flash point | -41 °C | | |
| Evaporation rate | <i>No data available</i> | | |
| Auto-ignition temperature | 465 °C | | |
| Upper/lower flammability or explosive limits | 1 - 13 Vol-% | | |
| Vapour pressure | 5,000 hPa | 20 °C | |
| Density | 1.042 g/cm ³ | 20 °C | |
| Bulk density | <i>not applicable</i> | | |
| Water solubility | <i>not applicable</i> | | ② Not miscible or only slightly miscible. |

9.2. Other information

The product is not self-igniting. The product is not explosive, but the formation of explosive vapour/air mixtures is possible. formation of explosive vapour/air mixtures is possible.

9.2.1. Information with regard to physical hazard classes

Explosives:

Not applicable

Flammable gases:

Not applicable

Aerosols:

Not applicable

Oxidizing gases:

Not applicable

Gases under pressure:

Not applicable

Flammable liquids:

Not applicable

Flammable solids:

Not applicable

Self-reactive substances and mixtures:

Not applicable

Pyrophoric liquids:

Not applicable

Pyrophoric solids:

Not applicable

Self-heating substances and mixtures:

Not applicable

Substances or mixtures which, in contact with water, emit flammable gases:

Not applicable

Oxidizing liquids:

Not applicable

Oxidizing solids:

Not applicable

Organic peroxides:

Not applicable

Corrosive to metals:

Not applicable

Desensitised explosives:

Not applicable

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2

Page 11/17



Zinc 240 500ml

SECTION 10: Stability and reactivity

10.1. Reactivity

No further relevant information available.

10.2. Chemical stability

Thermal decomposition / Conditions to avoid No decomposition when used as directed.

10.3. Possibility of hazardous reactions

No dangerous reactions known.

10.4. Conditions to avoid

No further relevant information available.

10.5. Incompatible materials

No further relevant information available.

10.6. Hazardous decomposition products

No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

| |
|--|
| dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8 |
| LD₅₀ oral: >2,000 mg/kg |
| LD₅₀ dermal: >2,000 mg/kg |
| LC₅₀ Acute inhalation toxicity (dust/mist): 308.5 mg/L 4 h (Rat) |
| Zinkpulver - Zinkstaub (stabilisiert) CAS No.: 7440-66-6 EC No.: 231-175-3 |
| LD₅₀ oral: >2,000 mg/kg (Ratte) |
| LC₅₀ Acute inhalation toxicity (gas): >5.4 ppmV 4 h (Ratte) |
| Acetone CAS No.: 67-64-1 |
| LD₅₀ oral: ≥5,000 mg/kg (Rat) |
| LD₅₀ dermal: >20 mg/kg (Rat) |
| LC₅₀ Acute inhalation toxicity (gas): >20 ppmV 4 h (Rat) |
| LC₅₀ Acute inhalation toxicity (vapour): >50 mg/L 4 h (Rat) |
| LC₅₀ Acute inhalation toxicity (dust/mist): 76 mg/L 4 h (Rat) |
| Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5 |
| LD₅₀ oral: 3,492 mg/kg (Rat) |
| LD₅₀ dermal: >3,160 mg/kg (Rabbit) |
| LC₅₀ Acute inhalation toxicity (gas): >6,193 ppmV 4 h (Rat) |
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 |
| LD₅₀ oral: >3,523 mg/kg (Rat) |
| LD₅₀ dermal: >2,000 mg/kg (Rabbit) |
| LC₅₀ Acute inhalation toxicity (gas): 27.571 ppmV 4 h (Rat) |
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 |
| LD₅₀ oral: >5,000 mg/kg (Rat) |
| LD₅₀ dermal: >2,000 mg/kg (Rat) |
| LC₅₀ Acute inhalation toxicity (gas): >5,700 ppmV 4 h (Rat) |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 |
| LD₅₀ oral: >2,000 mg/kg (Rat) |
| LD₅₀ dermal: >2,000 mg/kg (Rat) |
| LC₅₀ Acute inhalation toxicity (gas): >25 ppmV (Rat) |
| LC₅₀ Acute inhalation toxicity (vapour): >20 mg/L (Rat) |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2

Page 12/17



Zinc 240 500ml

Acute oral toxicity:

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

Acute dermal toxicity:

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

Acute inhalation toxicity:

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

Skin corrosion/irritation:

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

Serious eye damage/irritation:

Causes serious eye irritation.

Respiratory or skin sensitisation:

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

Germ cell mutagenicity:

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

Carcinogenicity:

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

Reproductive toxicity:

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

STOT-single exposure:

May cause drowsiness or dizziness.

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:

None of the ingredients are included.

SECTION 12: Ecological information

12.1. Toxicity

| |
|---|
| dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8 |
| LC ₅₀ : >4,000 mg/L 2 d (crustaceans, Daphnia magna) |
| LC ₅₀ : >4,000 mg/L 4 d (fish) |
| EC ₅₀ : 155 mg/L 4 d (Algae/water plant) |
| Zinkpulver - Zinkstaub (stabilisiert) CAS No.: 7440-66-6 EC No.: 231-175-3 |
| LC ₅₀ : 0.17 mg/L 4 d (Oncorhynchus mykiss) |
| EC ₅₀ : 0.41 mg/L 2 d (Daphnia magna) |
| NOEC: 0.017 mg/L 3 d (Pseudokirchneriella subcapitata) |
| Acetone CAS No.: 67-64-1 |
| LC ₅₀ : 8,300 mg/L 4 d |
| LC ₅₀ : 5,540 mg/L 4 d (fish, Oncorhynchus mykiss) |
| LC ₅₀ : 4,042 mg/L (fish) |
| EC ₅₀ : 8,800 mg/L 2 d (crustaceans, Daphnia magna) |
| EC ₅₀ : 8,300 mg/L (fish) |
| EC ₅₀ : 302 mg/L 4 d (Algae/water plant) |
| NOEC: 2,212 mg/L (crustaceans, Daphnia pulex) |
| Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5 |
| EC ₅₀ : 3.2 mg/L 2 d (crustaceans, Daphnia magna) |
| EC ₅₀ : 2.75 mg/L 3 d (Algae/water plant, Pseudokirchneriella Subcapitata) |
| EC ₅₀ : 9.2 mg/L 4 d (fish) |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2



Page 13/17

Zinc 240 500ml

| |
|---|
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 |
| LC₅₀ : 8.9 - 16.4 mg/L 4 d (fish, Pimephales promelas) |
| EC₅₀ : 3.2 - 9.5 mg/L 2 d (crustaceans, Daphnia magna) |
| NOEC : 0.44 mg/L 3 d (Algae/water plant) |
| LC₅₀ : 2.6 mg/L 4 d (fish, Oncorhynchus mykiss) |
| EC₅₀ : 2.2 mg/L 3 d (Algae/water plant, Chlorella vulgaris) |
| NOEC : >1.39 mg/L (fish, Oncorhynchus kisutch) |
| NOEC : 0.74 mg/L (crustaceans, Ceriodaphnia dubia) |
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 |
| LC₅₀ : 1.1 - 2.5 mg/L 4 d (fish, Oncorhynchus mykiss) |
| IC₅₀ : 1.85 mg/L 4 d (Algae/water plant, Skeletonema costatum) |
| LC₅₀ : 3.31 - 8.062 mg/L 4 d (fish, Brachydanio rerio) |
| LC₅₀ : >320 mg/L 4 d (fish, Lepomis macrochirus) |
| EC₅₀ : 1 mg/L 2 d (crustaceans, Daphnia magna) OECD 202 |
| EC₅₀ : 0.412 - 0.83 mg/L 2 d (crustaceans, Ceriodaphnia spec.) U.S. EPA ECOTOX Database |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 |
| LC₅₀ : 9,640 mg/L 4 d (fish, Pimephales promelas) |
| LC₅₀ : >1,000 mg/L 4 d (fish) |
| EC₅₀ : >100 mg/L (Algae/water plant) |
| EC₅₀ : >100 mg/L 2 d (crustaceans, Daphnia magna) |
| EC₅₀ : >1,000 mg/L 2 d (crustaceans) |
| ErC₅₀ : >100 mg/L 3 d (Algae/water plant, Desmodesmus subspicatus) |
| LOEC : 1,000 mg/L (Algae/water plant, Algae) |
| LC₅₀ : 8,970 mg/L 2 d (fish, Leuciscus idus (golden orfe)) |

12.2. Persistence and degradability

| |
|---|
| Acetone CAS No.: 67-64-1 |
| Biodegradation : Yes, rapidly |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 |
| Biodegradation : Yes, rapidly |
| Remark : Readily biodegradable (according to OECD criteria). |

Biodegradation:

Not readily biodegradable.

12.3. Bioaccumulative potential

| |
|---|
| Acetone CAS No.: 67-64-1 |
| Log K_{ow} : -0.23 |
| Bioconcentration factor (BCF) : 3 |
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 |
| Log K_{ow} : 3.16 |
| Bioconcentration factor (BCF) : 29 |
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 |
| Log K_{ow} : 2.2 |
| Bioconcentration factor (BCF) : 28,960 |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 |
| Log K_{ow} : 0.05 |

Accumulation / Evaluation:

No further relevant information available.

12.4. Mobility in soil

No further relevant information available.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2

Page 14/17



Zinc 240 500ml

12.5. Results of PBT and vPvB assessment

| |
|---|
| dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8 |
| Results of PBT and vPvB assessment: — |
| Zinkpulver - Zinkstaub (stabilisiert) CAS No.: 7440-66-6 EC No.: 231-175-3 |
| Results of PBT and vPvB assessment: — |
| Acetone CAS No.: 67-64-1 |
| Results of PBT and vPvB assessment: — |
| Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5 |
| Results of PBT and vPvB assessment: — |
| Reaction mass of ethylbenzene and xylene EC No.: 905-588-0 |
| Results of PBT and vPvB assessment: — |
| zinc oxide CAS No.: 1314-13-2 EC No.: 215-222-5 |
| Results of PBT and vPvB assessment: — |
| propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7 |
| Results of PBT and vPvB assessment: — |

The product does not meet the PBT/vPvB criteria.

12.6. Endocrine disrupting properties

The product does not contain any substances with endocrine-disrupting properties.

12.7. Other adverse effects

Very toxic to aquatic life.

Toxic to fish.

Do not allow to enter into surface water or drains.

Drinking water hazard even when small quantities leak into the subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Must not be disposed of together with household waste.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV Directive 2008/98/EC (Waste Framework Directive)




| | |
|-------|---|
| HP 3 | Flammable |
| HP 4 | Irritant — skin irritation and eye damage |
| HP 14 | Ecotoxic |

Waste treatment options

Other disposal recommendations:

Uncleaned packaging: Dispose of waste according to applicable legislation.

SECTION 14: Transport information

| Land transport (ADR/RID) | Inland waterway craft (ADN) | Sea transport (IMDG) | Air transport (ICAO-TI / IATA-DGR) |
|--|-------------------------------------|--|--|
| 14.1. UN number or ID number | | | |
| UN 1950 | UN 1950 | UN 1950 | UN 1950 |
| 14.2. UN proper shipping name | | | |
| AEROSOLS, ENVIRONMENTALLY HAZARDOUS | AEROSOLS, ENVIRONMENTALLY HAZARDOUS | AEROSOLS, MARINE POLLUTANT | AEROSOLS, flammable |
| 14.3. Transport hazard class(es) | | | |
|  2.1 | No data available |  2.1 |  2.1 |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2



Page 15/17

Zinc 240 500ml

| Land transport (ADR/RID) | Inland waterway craft (ADN) | Sea transport (IMDG) | Air transport (ICAO-TI / IATA-DGR) |
|---|---|---|------------------------------------|
| 14.4. Packing group | | | |
| | | | |
| 14.5. Environmental hazards | | | |
| | No data available | MARINE POLLUTANT | No data available |
| 14.6. Special precautions for user | | | |
| Special Provisions: 190 327 344 625 Limited quantity (LQ): 1L Classification code: 5F Tunnel restriction code: (D) Remark: Attention: Gases | Special Provisions: 190 327 344 625 Limited quantity (LQ): 1L Classification code: 5F Remark: Attention: Gases | Special Provisions: 63 190 277 327 344 381 959 Limited quantity (LQ): 1L Excepted Quantities (EQ): E0 EmS-No.: F-D,S-U Remark: Attention: Gases | Remark: Attention: Gases |

14.7. Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Authorisations:

Directive 2012/18/EU

Named dangerous substances - ANNEX I: None of the ingredients are included.

Restrictions on use:

Regulation (EC) No 1907/2006 ANNEX XVII: Restriction conditions: 3

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II: None of the ingredients are included.

Regulation (EU) 2019/1148

Annex I - RESTRICTED EXPORT SUBSTANCES FOR EXPLOSIVES (upper concentration limit for a permit pursuant to Article 5(3)): None of the ingredients are included.

Annex II - EXPLOSIVES REPORTABLE FOR EXPLOSIVES: Acetone

Regulation (EC) No 273/2004 on drug precursors: Acetone

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade in drug precursors between the Community and third countries: Acetone

Other regulations (EU):

Hazard categories:

- P3a 'Flammable' aerosols Category 1 or 2, containing flammable gases Category 1 or 2 or flammable liquids
- E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

Named dangerous substances:

- Liquefied flammable gases, Category 1 or 2 (including liquefied petroleum gas) and natural gas

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:

Volatile organic compounds (VOC) content in percent by weight: 671.1 g/L

15.1.2. National regulations

No data available

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2

Page 16/17



Zinc 240 500ml

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1. Indication of changes

No data available

16.2. Abbreviations and acronyms

| | |
|------------------|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| BCF | Bioconcentration Factor |
| CAS | Chemical Abstracts Service |
| CLP | Classification, Labelling and Packaging |
| DNEL | derived no-effect level |
| EC ₅₀ | Effective Concentration 50% |
| EN | European Standard |
| ES | Exposure scenario |
| EWC | European Waste Catalogue |
| IC ₅₀ | Inhibition Concentration 50 % |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods |
| IMO | International Maritime Organization |
| KG | body weight |
| LC ₅₀ | Lethal (fatal) Concentration 50% |
| LD ₅₀ | Lethal (fatal) Dose 50% |
| MAK | Maximum concentration in the workplace air (CH) |
| NFPA | National Fire Protection Association |
| NIOSH | National Institute for Occupational Safety & Health |
| NOEC | No Observed Effect Concentration |
| OEL | Threshold Limit Value |
| OSHA | Occupational Safety & Health Administration |
| PBT | persistent and bioaccumulative and toxic |
| PNEC | Predicted No Effect Concentration |
| REACH | Registration, Evaluation and Authorization of Chemicals |
| RID | Dangerous goods regulations for transport by rail |
| TRGS | Technische Regeln für Gefahrstoffe |
| UN | United Nations |
| VOC | Volatile organic compounds |
| ZNS | central nervous system |

16.3. Key literature references and sources for data

No data available

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

| Hazard classes and hazard categories | Hazard statements | Classification procedure |
|---|---|--------------------------|
| Hazardous to the aquatic environment (Aquatic Acute 1) | H400: Very toxic to aquatic life. | |
| Hazardous to the aquatic environment (Aquatic Chronic 1) | H410: Very toxic to aquatic life with long lasting effects. | |
| Serious eye damage/eye irritation (Eye Irrit. 2) | H319: Causes serious eye irritation. | |
| STOT-single exposure (STOT SE 3) | H336: May cause drowsiness or dizziness. | |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 4 Jan 2023

Print date: 23 Feb 2024

Version: 2



Page 17/17

Zinc 240 500ml

| Hazard classes and hazard categories | Hazard statements | Classification procedure |
|--------------------------------------|--|--------------------------|
| Aerosols (<i>Aerosol 1</i>) | H222; H229: Extremely flammable aerosol. Pressurised container: May burst if heated. | |

16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

| Hazard statements | |
|-------------------|--|
| H220 | Extremely flammable gas. |
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H280 | Contains gas under pressure; may explode if heated. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |

| Supplemental hazard information | |
|---------------------------------|---|
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

16.6. Training advice

No data available

16.7. Additional information

No data available