

SAFETY DATA SHEET ACCORDING TO REGULATION (EC) 1907/2006**Product name: Zinc Primer WS-85-400****Creation date: 09.03.2022, Revision: 24.01.2023, version: 1.3****SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier****Product name**

Zinc Primer WS-85-400

UFI:

6G72-20VW-E001-0RM1

<https://my.chemius.net/p/JcodbF/en/pd/en>**1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified uses**

An agent for protection against corrosion. Paint. Varnish.

Uses advised against

No information.

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

Wekem GmbH

Emilie-Winkelmann-Str. 2

D-59192 Bergkamen, Germany

+49-(0)-23 89-40 30 10

vertrieb@wekem.de

1.4 Emergency Telephone Number**Emergency**

112

Supplier

/

SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 (CLP)**

Aerosol 1; H222 Extremely flammable aerosol.

Aerosol 1; H229 Pressurised container: May burst if heated.

Asp. Tox. 1; H304 May be fatal if swallowed and enters airways.

Skin Irrit. 2; H315 Causes skin irritation.

Eye Irrit. 2; H319 Causes serious eye irritation.

STOT SE 3; H336 May cause drowsiness or dizziness.

STOT RE 2; H373 May cause damage to organs through prolonged or repeated exposure.

Aquatic Acute 1; H400 Very toxic to aquatic life.

Aquatic Chronic 1; H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

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

**Signal word: Danger**

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

P102 Keep out of reach of children.

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.

P273 Avoid release to the environment.

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.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

P501 Dispose of contents/container in accordance with national regulation.

Contains:

n-butyl acetate

acetone

reaction mass of ethylbenzene and xylene

hydrocarbons C9 aromatics

2.3 Other hazards**PBT/vPvB**

No information.

Endocrine disrupting properties

No information.

Additional information

No information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances**

For mixtures see 3.2.

3.2 Mixtures

| Name | CAS EC Index Reach | % | Classification according to Regulation (EC) No 1272/2008 (CLP) | Specific Conc. Limits | Notes for substances |
|--------------------------------------|---|-------|--|-----------------------|----------------------|
| zinc powder - zinc dust (stabilized) | 7440-66-6 231-175-3 030-001-01-9 | 25-50 | Aquatic Acute 1; H400; M = 1 Aquatic Chronic 1; H410; M = 1 | / | / |
| isobutane | 75-28-5 200-857-2 - 01-2119485395-27 | 10-25 | Flam. Gas 1; H220 Press. Gas; H280 | / | / |

| | | | | | |
|--|---|--------|--|---|---|
| n-butyl acetate | 123-86-4 204-658-1 607-025-00-1 01-2119485493-29 | 10-25 | Flam. Liq. 3; H226 STOT SE 3; H336 EUH066 | / | / |
| acetone | 67-64-1 200-662-2 606-001-00-8 01-2119471330-49 | 10-25 | Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066 | / | / |
| propane | 74-98-6 200-827-9 - 01-2119485394-21 | 2,5-10 | Flam. Gas 1; H220 Press. Gas; H280 | / | / |
| reaction mass of ethylbenzene and xylene | - 905-588-0 - 01-2119488216-32 | 2,5-10 | Flam. Liq. 3; H226 Asp. Tox. 1; H304 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332 STOT SE 3; H335 STOT RE 2; H373 | / | / |
| hydrocarbons C9 aromatics | 64742-95-6 918-668-5 - 01-2119455851-35 | 2,5-10 | Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H335 STOT SE 3; H336 Aquatic Chronic 2; H411 | / | / |
| 2-pentanone oxime | 623-40-5 484-470-6 - 01-2119980079-27 | <1 | Acute Tox. 4; H302 Eye Irrit. 2; H319 Aquatic Chronic 3; H412 | / | / |

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes

Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician. No action shall be taken involving any personal risk or without suitable training. Wash contaminated clothing with water before removing or use gloves. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Following inhalation

Remove patient to fresh air - move out of dangerous area. If symptoms occur, seek medical advice. In case of unconsciousness bring patient into stable side position and seek medical attention. If breathing is irregular or respiratory arrest occurs provide artificial respiration. Keep at rest in a position comfortable for breathing. Seek medical help immediately.

Following skin contact

Take off all contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water. Wash affected skin areas thoroughly with plenty of water and soap. If symptoms develop and persist, seek medical attention.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. If irritation persists, seek professional medical attention.

Following ingestion

Not likely. Accidental ingestion: Rinse mouth thoroughly with water. Do not induce vomiting without prior consultation with a doctor. Never give anything by mouth to an unconscious person. Immediately consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

Vapours may cause drowsiness and dizziness. Symptoms include: headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, unconsciousness.

Following skin contact

Irritating to the skin. Itching, redness, pain. Repeated or prolonged contact with the product may lead to removal of natural fats from the skin and non-allergic contact dermatitis.

Following eye contact

Redness, tearing, pain. Causes severe eye irritation.

Following ingestion

Ingestion is unlikely because it is an aerosol. Accidental ingestion: May cause nausea/vomiting and diarrhea. May cause abdominal discomfort. Aspiration into the lungs causes coughing, shortness of breath and may lead to chemical pneumonia.

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**

Foam.

Fire extinguishing powder.

Carbon dioxide (CO₂).

Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Full water jet.

5.2 Special hazards arising from the substance or mixture**Hazardous combustion products**

In case of a fire toxic gases can be generated; do not inhale gases/smoke. In the event of fire the following can be generated: carbon monoxide (CO), carbon dioxide (CO₂).

5.3 Advice for firefighters**Protective actions**

Cool containers at risk with water spray. If possible remove containers from endangered area. Cool the endangered containers with water spray. Move undamaged containers from immediate hazard area if it can be done safely. In case of fire aerosols can explode and be propelled to considerable distances in different directions. Prolonged heating can cause an explosion. Vapours can form explosive mixtures with air.

Special protective equipment for fire-fighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (BS EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (BS EN 137).

Additional information

Contaminated extinguishing agents must be disposed of in accordance with the regulations; do not allow to reach the sewage system.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel****Protective equipment**

Use personal protective equipment (Section 8). In case of insufficient ventilation, use respiratory protection equipment.

Precautionary measures

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking!

Emergency procedures

Prevent access to unprotected personnel. Prevent access to unauthorised personnel. No action shall be taken involving any personal risk or without suitable training. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing.

For emergency responders

Use personal protective equipment. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

The product is an aerosol, which is why leakage of large amounts of product is not expected. In case of release into the environment, inform the relevant authorities. Do not allow product to reach water/drains/sewage systems or permeable soil.

6.3 Methods and material for containment and cleaning up

For containment

Stem the spill if this does not pose risks.

For cleaning up

Collect the spray cans and hand them over to an authorized waste disposal contractor. Release of liquid because of damaged aerosol can (release of large quantities): Use spark-proof tools. Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Dispose in accordance with applicable regulations (see Section 13).

OTHER INFORMATION

No information.

6.4 Reference to other sections

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Ensure adequate ventilation. Keep away from sources of ignition - no smoking. Use spark-proof tools. Take precautionary measures against static discharges. Use explosively safe equipment (ventilators, lighting, working instruments and devices,...); Vapours and air form explosive mixtures. Pressurized container; protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Uncleaned containers should not be perforated, cut or welded.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

No information.

Other measures

No information.

Advice on general occupational hygiene

Consider measures required in Section 8 of this safety data sheet. Avoid contact with skin, eyes and clothes. Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe vapours/mist. Remove contaminated clothes and wash them before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Store in accordance with local regulations. Follow safe storage practices for packed compressed gas as described by the Compressed Gas Association or the relevant agency in the country where the product is used. Keep in a cool, dry and well

ventilated place. Protect from open fire, heat and direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep away from oxidising substances. Store away from strong acids. Store away from strong bases.

Packaging materials

Store only in original container.

Requirements for storage rooms and vessels

Do not store in unlabelled containers. Use appropriate container to avoid environmental contamination.

Storage class

No information.

Further information on storage conditions

No information.

7.3 Specific end use(s)

Recommendations

No information.

Industrial sector specific solutions

No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

| Name | mg/m ³ | ml/m ³ | Short-term value mg/m ³ | Short-term value ml/m ³ | Remark | Biological Tolerance Values |
|--|-------------------|-------------------|---------------------------------------|---------------------------------------|---|--------------------------------|
| reaction mass of ethylbenzene and xylene | 220 | 50 | 441 | 100 | Xylene, o-,m-,p- or mixed isomers (1330-20-7) Sk, BMGV Biological Tolerance Values 650 mmol methyl hippuric acid/mol creatinine in urine - Post shift | / |
| reaction mass of ethylbenzene and xylene | 441 | 100 | 552 | 125 | Ethylbenzene (100-41-4) Sk | / |
| Aromatics | 500 | / | / | / | / | / |
| Acetone (67-64-1) | 1210 | 500 | 3620 | 1500 | / | / |
| Butyl acetate (123-86-4) | 724 | 150 | 966 | 200 | / | / |

Information on monitoring procedures

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product

No information.

For components

| Name | Type | Exposure route | exp. frequency | Remark | value |
|--------------------------------------|----------|----------------|----------------------------|--------|-----------------------|
| zinc powder - zinc dust (stabilized) | Worker | inhalation | long term systemic effects | / | 5 mg/m ³ |
| zinc powder - zinc dust (stabilized) | Worker | dermal | long term systemic effects | / | 83 mg/kg bw/day |
| zinc powder - zinc dust (stabilized) | Consumer | inhalation | long term systemic effects | / | 2.5 mg/m ³ |
| zinc powder - zinc dust (stabilized) | Consumer | dermal | long term systemic effects | / | 83 mg/kg bw/day |

| | | | | | |
|--|----------|------------|-----------------------------|---|------------------------|
| zinc powder - zinc dust (stabilized) | Consumer | oral | long term systemic effects | / | 0.83 mg/kg bw/day |
| n-butyl acetate | Worker | inhalation | long term systemic effects | / | 300 mg/m ³ |
| n-butyl acetate | Worker | inhalation | short term systemic effects | / | 600 mg/m ³ |
| n-butyl acetate | Worker | inhalation | long term local effects | / | 300 mg/m ³ |
| n-butyl acetate | Worker | inhalation | short term local effects | / | 600 mg/m ³ |
| n-butyl acetate | Worker | dermal | long term systemic effects | / | 11 mg/kg bw/day |
| n-butyl acetate | Worker | dermal | short term systemic effects | / | 11 mg/kg bw/day |
| n-butyl acetate | Consumer | inhalation | long term systemic effects | / | 35.7 mg/m ³ |
| n-butyl acetate | Consumer | inhalation | short term systemic effects | / | 300 mg/m ³ |
| n-butyl acetate | Consumer | inhalation | long term local effects | / | 35.7 mg/m ³ |
| n-butyl acetate | Consumer | dermal | long term systemic effects | / | 6 mg/kg bw/day |
| n-butyl acetate | Consumer | dermal | short term systemic effects | / | 6 mg/kg bw/day |
| n-butyl acetate | Consumer | oral | long term systemic effects | / | 2 mg/kg bw/day |
| acetone | Worker | inhalation | long term systemic effects | / | 1210 mg/m ³ |
| acetone | Worker | inhalation | short term local effects | / | 2420 mg/m ³ |
| acetone | Worker | dermal | long term systemic effects | / | 186 mg/kg bw/day |
| acetone | Consumer | inhalation | long term systemic effects | / | 200 mg/m ³ |
| acetone | Consumer | dermal | long term systemic effects | / | 62 mg/kg bw/day |
| acetone | Consumer | oral | long term systemic effects | / | 62 mg/kg bw/day |
| reaction mass of ethylbenzene and xylene | Worker | inhalation | long term systemic effects | / | 221 mg/m ³ |
| reaction mass of ethylbenzene and xylene | Worker | inhalation | short term systemic effects | / | 442 mg/m ³ |
| reaction mass of ethylbenzene and xylene | Worker | inhalation | long term local effects | / | 221 mg/m ³ |
| reaction mass of ethylbenzene and xylene | Worker | inhalation | short term local effects | / | 442 mg/m ³ |
| reaction mass of ethylbenzene and xylene | Worker | dermal | long term systemic effects | / | 212 mg/kg bw/day |
| reaction mass of ethylbenzene and xylene | Consumer | inhalation | long term systemic effects | / | 65.3 mg/m ³ |
| reaction mass of ethylbenzene and xylene | Consumer | inhalation | short term systemic effects | / | 260 mg/m ³ |
| reaction mass of ethylbenzene and xylene | Consumer | inhalation | long term local effects | / | 65.3 mg/m ³ |
| reaction mass of ethylbenzene and xylene | Consumer | inhalation | short term local effects | / | 260 mg/m ³ |
| reaction mass of ethylbenzene and xylene | Consumer | dermal | long term systemic effects | / | 125 mg/kg bw/day |

| | | | | | |
|--|----------|------------|----------------------------|---|-----------------------|
| reaction mass of ethylbenzene and xylene | Consumer | oral | long term systemic effects | / | 12.5 mg/kg bw/day |
| hydrocarbons C9 aromatics | Worker | dermal | long term systemic effects | / | 25 mg/kg bw/day |
| hydrocarbons C9 aromatics | Worker | inhalation | long term systemic effects | / | 150 mg/m ³ |
| hydrocarbons C9 aromatics | Consumer | inhalation | long term systemic effects | / | 32 mg/m ³ |
| hydrocarbons C9 aromatics | Consumer | dermal | long term systemic effects | / | 11 mg/kg bw/day |
| hydrocarbons C9 aromatics | Consumer | oral | long term systemic effects | / | 11 mg/kg bw/day |

PNEC values

For product

No information.

For components

| Name | Exposure route | Remark | value |
|--|-----------------------------|-------------|-------------|
| zinc powder - zinc dust (stabilized) | fresh water | / | 20.6 µg/l |
| zinc powder - zinc dust (stabilized) | marine water | / | 6.1 µg/l |
| zinc powder - zinc dust (stabilized) | water treatment plant | / | 100 µg/l |
| zinc powder - zinc dust (stabilized) | fresh water sediment | dry weight | 117.8 mg/kg |
| zinc powder - zinc dust (stabilized) | marine water sediment | dry weight | 121 mg/kg |
| zinc powder - zinc dust (stabilized) | soil | dry weight | 106.8 mg/kg |
| n-butyl acetate | fresh water | / | 0.18 mg/L |
| n-butyl acetate | water, intermittent release | fresh water | 0.36 mg/L |
| n-butyl acetate | marine water | / | 0.018 mg/L |
| n-butyl acetate | water treatment plant | / | 35.6 mg/L |
| n-butyl acetate | fresh water sediment | dry weight | 0.981 mg/kg |
| n-butyl acetate | marine water sediment | dry weight | 0.098 mg/kg |
| n-butyl acetate | soil | dry weight | 0.09 mg/kg |
| acetone | fresh water | / | 10.6 mg/L |
| acetone | water, intermittent release | / | 21 mg/L |
| acetone | marine water | / | 1.06 mg/L |
| acetone | water treatment plant | / | 100 mg/L |
| acetone | fresh water sediment | dry weight | 30.4 mg/kg |
| acetone | marine water sediment | dry weight | 3.04 mg/kg |
| acetone | soil | dry weight | 29.5 mg/kg |
| reaction mass of ethylbenzene and xylene | fresh water | / | 0.327 mg/L |
| reaction mass of ethylbenzene and xylene | water, intermittent release | fresh water | 0.327 mg/L |
| reaction mass of ethylbenzene and xylene | marine water | / | 0.327 mg/L |
| reaction mass of ethylbenzene and xylene | water treatment plant | / | 6.58 mg/L |
| reaction mass of ethylbenzene and xylene | fresh water sediment | dry weight | 12.46 mg/kg |
| reaction mass of ethylbenzene and xylene | marine water sediment | dry weight | 12.46 mg/kg |
| reaction mass of ethylbenzene and xylene | soil | dry weight | 2.31 mg/kg |

8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes. Do not breathe vapours/aerosols.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse. Keep eyewash bottles or personal eyewash units available at the workplace.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration.

Personal protective equipment**Eye and face protection**

Tight fitting protective goggles (EN 166).

Hand protection

In case of prolonged exposure, wear protective gloves (BS EN ISO 374). Observe the manufacturer's instructions regarding the use, storage, maintenance and replacement of gloves. In case of damage or at the first signs of wear and tear, change the gloves immediately. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Appropriate materials**Skin protection**

Cotton protective clothing and shoes that cover the entire foot (BS EN ISO 20345:2022). Protective antistatic clothing EN 1149 (1:2006, 2:1998 and 3:2004, 5:2008), protective antistatic shoes (EN 20345:2012). Choose body protection according to the activity and possible exposure.

Respiratory protection

Not needed under normal use and adequate ventilation. In case of insufficient ventilation wear suitable respiratory protection. Protective masks (EN 136) or half masks (EN 140) with filter A-P (EN 14387). For dust/gas/ vapor concentrations above the applicable filter limit, in case of oxygen concentrations below 17% or in vague conditions, autonomous self-contained breathing apparatus should be used, according to standard BS EN 137, BS EN 138. For a correct choice of respiratory protection device, see standard EN 529.

Thermal hazards

No information.

Environmental exposure controls**Substance/mixture related measures to prevent exposure**

No information.

Instruction measures to prevent exposure

No information.

Organisational measures to prevent exposure

Comply with applicable regulations on environmental protection.

Technical measures to prevent exposure

Do not allow product to reach drains, sewage systems or ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties****Physical state**

liquid - aerosol

Colour

gray

Odour

characteristic

Important health, safety and environmental information

| | |
|------------------------------|-----------------|
| Odour threshold | No information. |
| Melting point/Freezing point | No information. |

| | |
|--|---|
| Boiling point or initial boiling point and boiling range | No information. |
| Flammability | No information. |
| Lower and upper explosion limit | 1.86 – 14.3 vol % |
| Flash point | No information. |
| Auto-ignition temperature | No information. |
| Decomposition temperature | No information. |
| pH | substance/mixture is non-soluble (in water) |
| Viscosity | No information. |
| Solubility | Water: insoluble |
| Partition coefficient | No information. |
| Vapour pressure | No information. |
| Density and/or relative density | Density: 1.792 g/cm ³ (data refers to the liquid portion of the product) |
| Relative vapour density | No information. |
| Particle characteristics | No information. |

9.2 OTHER INFORMATION

| | |
|-------------------------|-----------------|
| Weight organic solvents | 636 g/l 67 % |
| Explosive properties | No information. |

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Extremely flammable aerosol.

10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions occur under normal conditions of storage and use.

10.4 Conditions to avoid

Vapours and air can form explosive mixtures. Protect from heat, direct sunlight, open fire, sparks. Do not store above 50°C. Take precautionary measures against static discharges.

10.5 Incompatible materials

Oxidants.
Strong acids.
Strong bases. Halogenated compounds. Alkali metal. Ethanolamine. Hydrogen peroxide. Attacks many plastics and rubbers.

10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released. Hazardous combustion products, see Section 5 of the safety data sheet.

SECTION 11: TOXICOLOGICAL INFORMATION

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

(a) Acute toxicity

For product

| Exposure route | Type | Species | Time | value | Method | Remark |
|----------------|------|---------|------|--------------|--------|--------|
| dermal | ATE | / | / | > 2000 mg/kg | / | / |

For components

| Name | Exposure route | Type | Species | Time | value | Method | Remark |
|---------------------------|--------------------------|------------------|-------------------|--------|------------------|----------|--------|
| n-butyl acetate | oral | LD ₅₀ | rat (male/female) | / | 10760 mg/kg | OECD 423 | / |
| n-butyl acetate | dermal | LD ₅₀ | rabbit | / | > 14112 mg/kg | OECD 402 | / |
| n-butyl acetate | inhalation (dusts/mists) | LC ₅₀ | rat (male/female) | 4 h | 23.4 mg/l | OECD 403 | / |
| acetone | inhalation | LC ₅₀ | rat | 4 days | 76 mg/l | / | / |
| acetone | oral | LD ₅₀ | rat | / | 5800 mg/kg bw | OECD 401 | / |
| acetone | dermal | LD ₅₀ | rat | / | > 15800 mg/kg bw | / | / |
| hydrocarbons C9 aromatics | oral | LD ₅₀ | rat | / | > 2000 mg/kg | / | / |
| hydrocarbons C9 aromatics | dermal | LD ₅₀ | rat | / | > 2000 mg/kg | / | / |
| 2-pentanone oxime | oral | LD ₅₀ | rat | / | 1133 mg/kg | / | / |

Additional information

The product is not classified for acute toxicity.

(b) Skin corrosion/irritation

For components

| Name | Species | Time | result | Method | Remark |
|-----------------|------------|------|---------------|----------|--------|
| n-butyl acetate | / | / | Non-irritant. | OECD 404 | / |
| acetone | guinea pig | / | Non-irritant. | / | / |

Additional information

Causes skin irritation.

(c) Serious eye damage/irritation

For components

| Name | Exposure route | Species | Time | result | Method | Remark |
|-----------------|----------------|---------|------|---------------|----------|--------|
| n-butyl acetate | / | rabbit | / | Non-irritant. | OECD 405 | / |
| acetone | / | rabbit | / | Irritating. | OECD 405 | / |

Additional information

Causes serious eye irritation.

(d) Respiratory or skin sensitisation

For components

| Name | Exposure route | Species | Time | result | Method | Remark |
|-----------------|----------------|------------|------|------------------|----------|-------------------|
| n-butyl acetate | dermal | guinea pig | / | Non sensitising. | OECD 406 | maximisation test |
| n-butyl acetate | dermal | mouse | / | Non sensitising. | MEST | / |
| acetone | dermal | guinea pig | / | Negative. | OECD 406 | / |
| acetone | inhalation | / | / | Non sensitising. | / | / |

Additional information

The product is not classified as sensitising.

(e) (Germ cell) mutagenicity

For product

| Type | Species | Time | result | Method | Remark |
|------|---------|------|--|--------|--------|
| / | / | / | The chemical is not classified as mutagenic. | / | / |

For components

| Name | Type | Species | Time | result | Method | Remark |
|-----------------|-----------------------|------------------------|------|-----------|-----------------------|-----------------------------|
| n-butyl acetate | in-vivo mutagenicity | / | / | Negative. | / | / |
| n-butyl acetate | in-vitro mutagenicity | / | / | Negative. | / | / |
| acetone | in-vivo mutagenicity | Bacteria | / | Negative. | OECD 471 | / |
| acetone | in-vitro mutagenicity | / | / | Negative. | OECD 473 | Chromosome aberration assay |
| acetone | in-vitro mutagenicity | Cell: Mammalian-Animal | / | Negative. | OECD 476 | / |
| acetone | in-vivo mutagenicity | mouse | / | Negative. | The micronucleus test | / |

(f) Carcinogenicity

For product

| Exposure route | Type | Species | Time | value | result | Method | Remark |
|----------------|------|---------|------|-------|---|--------|--------|
| / | / | / | / | / | The chemical is not classified as carcinogenic. | / | / |

For components

| Name | Exposure route | Type | Species | Time | value | result | Method | Remark |
|---------|----------------|------|---------|------|-------|----------|--------|--------|
| acetone | dermal | / | mouse | / | / | negative | / | / |

(g) Reproductive toxicity

For product

| Reproductive toxicity type | Type | Species | Time | value | result | Method | Remark |
|----------------------------|------|---------|------|-------|---|--------|--------|
| / | / | / | / | / | The chemical is not classified as toxic for reproduction. | / | / |

For components

| Name | Reproductive toxicity type | Type | Species | Time | value | result | Method | Remark |
|-----------------|----------------------------|------|---------|------|-------|---|----------|--------|
| n-butyl acetate | / | / | / | / | / | Animal testing did not show any effects on fertility. | / | / |
| acetone | Reproductive toxicity | / | / | / | / | Not toxic for reproduction. | / | / |
| acetone | Effects on fertility | / | / | / | / | Animal testing did not show any effects on fertility. | / | / |
| acetone | Developmental toxicity | / | rat | / | / | Negative. | OECD 414 | / |

Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

For components

| Name | Exposure route | Type | Species | Time | Exposure | organ | value | result | Method | Remark |
|-----------------|----------------|------|---------|------|----------|------------------------|-------|------------------------------------|--------|--------|
| n-butyl acetate | inhalation | / | / | / | / | central nervous system | / | May cause drowsiness or dizziness. | / | / |
| acetone | inhalation | - | / | / | / | / | / | May cause drowsiness or dizziness. | / | / |

Additional information

May cause drowsiness or dizziness.

(i) STOT-repeated exposure

For components

| Name | Exposure route | Type | Species | Time | Exposure | organ | value | result | Method | Remark |
|-----------------|----------------------|-------|---------|---------|----------|-------|-------------------------|---|--------|--------|
| n-butyl acetate | dermal | - | / | / | / | / | / | Repeated exposure may cause dry and cracked skin. | / | / |
| acetone | oral | NOAEL | rat | 90 days | / | / | 900 mg/kg bw/day | / | / | / |
| acetone | - | - | / | / | / | / | / | Not classified. | / | / |
| acetone | inhalation (vapours) | NOAEC | rat | 8 weeks | / | / | 22500 mg/m ³ | / | / | / |

Additional information

May cause damage to organs through prolonged or repeated exposure.

(j) Aspiration hazard

For components

| Name | result | Method | Remark |
|-----------------|------------------------------------|--------|--------|
| n-butyl acetate | Aspiration hazard: Not Classified. | / | / |
| acetone | Aspiration hazard: Not Classified. | / | / |

Additional information

May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

11.2 Information on other hazards

Endocrine disrupting properties

No information.

Other information

No information.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute (short-term) toxicity

For components

| Name | Type | value | Exposure time | Species | organism | Method | Remark |
|-----------------|------------------|------------|---------------|-----------|--------------------------------|----------|----------------------------|
| n-butyl acetate | LC ₅₀ | 18 mg/L | 96 h | fish | <i>Pimephales promelas</i> | OECD 203 | flow-through |
| n-butyl acetate | EC ₅₀ | 44 mg/L | 48 h | crustacea | <i>Daphnia magna</i> | / | static system |
| n-butyl acetate | EC ₅₀ | 647.7 mg/L | 72 h | algae | <i>Desmodesmus subspicatus</i> | / | growth rate; static system |
| n-butyl acetate | NOEC | 200 mg/L | / | algae | <i>Desmodesmus subspicatus</i> | / | growth rate; static system |
| n-butyl acetate | IC ₅₀ | 356 mg/L | 40 h | bacteria | <i>Tetrahymena pyriformis</i> | / | / |

| | | | | | | | |
|---------------------------|------------------|-----------------------------|--------|-----------------------|-----------------------------|---|---|
| acetone | LC ₅₀ | 5540 mg/L | 96 h | fish | <i>Oncorhynchus mykiss</i> | / | / |
| acetone | EC ₅₀ | 8800 mg/L | 48 h | crustacea | <i>Daphnia pulex</i> | / | / |
| acetone | LC ₅₀ | 11000 mg/L | 96 h | fish | <i>Alburnus alburnus</i> | / | / |
| acetone | EC ₅₀ | 2100 mg/L | 24 h | crustacea | <i>Artemisia salina</i> | / | / |
| acetone | NOEC | 96 mg/L | 96 h | algae | <i>Prorocentrum minimum</i> | / | / |
| acetone | EC ₁₀ | 1000 mg/L | 30 min | bacteria | Activated sludge | / | / |
| acetone | LD ₅₀ | 20000 mg/L | 48 h | Soil living organisms | ambystoma mexicanum | / | / |
| acetone | LD ₅₀ | 24000 mg/L | 48 h | Soil living organisms | Xenopus laevis | / | / |
| acetone | LD ₅₀ | -1 - 0.1 mg/cm ³ | 48 h | Soil living organisms | <i>Eisenia fetida</i> | / | / |
| hydrocarbons C9 aromatics | EC ₅₀ | 1 - 10 mg/L | / | crustacea | / | / | / |

Chronic (long-term) toxicity

For components

| Name | Type | value | Exposure time | Species | organism | Method | Remark |
|---------|------|-----------|---------------|-----------|-------------------------------|--------|--------------|
| acetone | NOEC | 530 mg/l | 8 days | algae | <i>Microcystis aeruginosa</i> | / | / |
| acetone | NOEC | 2212 mg/l | 28 days | crustacea | <i>Daphnia pulex</i> | / | reproduction |

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

For components

| Name | Environment | Type / Method | Half Time | Evaluation | Method | Remark |
|---------|-------------|------------------|------------|------------|-----------|--------|
| acetone | Air | photodegradation | 19 - 114 h | / | half-life | / |

Biodegradation

For components

| Name | Type | Rate | Time | Evaluation | Method | Remark |
|-----------------|------------------|--------------------------|---------|-----------------------|------------|------------------|
| n-butyl acetate | aerobic | 83 % | 28 days | readily biodegradable | OECD 301 D | / |
| acetone | anaerobic | 100 % | 4 days | biodegradable | / | activated sludge |
| acetone | biodegradability | 91 % | 28 days | readily biodegradable | OECD 301 B | / |
| acetone | BOD (% ThOD) | 84 % | 5 days | / | / | / |
| acetone | COD | 2.21 g O ₂ /g | / | / | / | / |

12.3 Bioaccumulative potential

Partition coefficient

For components

| Name | Media | value | Temperature °C | pH | Concentration | Method |
|-----------------|-------------------------|-------|----------------|----|---------------|----------|
| n-butyl acetate | octanol-water (log Kow) | 2.3 | 25 | / | / | OECD 117 |
| acetone | octanol-water (log Kow) | -0.24 | / | / | / | / |
| propane | Octanol-water (log Pow) | 1.09 | 20 | 7 | / | / |

Bioconcentration factor (BCF)

For components

| Name | Species | organism | value | Duration | Evaluation | Method | Remark |
|-----------------|---------|----------|-------|----------|------------|--------|------------------|
| n-butyl acetate | BCF | / | 15.3 | / | / | / | Calculated value |
| acetone | BCF | / | 3 | / | / | / | Calculated value |

12.4 Mobility in soil

Known or predicted distribution to environmental compartments

No information.

Surface tension

For components

| Name | value | Temperature °C | Concentration | Method | Remark |
|-----------------|-----------|----------------|---------------|----------|--------|
| n-butyl acetate | 61.3 mN/m | 20 | 1 g/L | OECD 115 | / |

Adsorption/Desorption

For components

| Name | Type | Criterion | value | Evaluation | Method | Remark |
|---------|-------|--------------------|-------------------------------------|------------|--------|---------------------|
| acetone | Water | / | 1.5 L/kg | / | / | Koc, 20 °C |
| acetone | Water | Henry constant (H) | 2929 - 3070 Pa.m ³ / mol | / | / | 25 °C |
| acetone | Water | Henry constant (H) | 3311 Pa.m ³ / mol | / | / | 25 °C, marine water |

12.5 Results of PBT and vPvB assessment

No evaluation.

12.6 Endocrine disrupting properties

No information.

12.7 Other adverse effects

No information.

12.8 Additional information

For product

Very toxic to aquatic life with long lasting effects. Avoid release to the environment. Water hazard class 2 (self-assessment): hazardous for water.

For components

n-butyl acetate

Bioaccumulation is not expected. Soluble in water. This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Low adsorption potential.

acetone

Bioaccumulation is not expected.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical

Dispose of in accordance with applicable waste disposal regulation. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste. Do not allow product to reach drains/sewage systems.

Waste codes / waste designations according to LoW

15 01 11* - metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers

Packaging

Dispose of in accordance with applicable waste disposal regulation. Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents. Uncleaned containers should not be perforated, cut or welded.

Waste codes / waste designations according to LoW

16 05 04* - gases in pressure containers (including halons) containing dangerous substances

Waste treatment-relevant information

No information.

Sewage disposal-relevant information

No information.

Other disposal recommendations

No information.

SECTION 14: TRANSPORT INFORMATION

| ADR/RID | IMDG | IATA | ADN |
|-----------------------------------|---|--------------------------|--------------------------|
| 14.1 UN number or ID number | | | |
| UN 1950 | UN 1950 | UN 1950 | UN 1950 |
| 14.2 UN proper shipping name | | | |
| AEROSOLS | AEROSOLS (zinc powder - zinc dust (stabilized)) | AEROSOLS | AEROSOLS |
| 14.3 Transport hazard class(es) | | | |
| 2 | 2 | 2 | 2 |
| | | | |
| 14.4 Packing group | | | |
| Not given/not applicable | Not given/not applicable | Not given/not applicable | Not given/not applicable |
| 14.5 Environmental hazards | | | |
| YES | Marine pollutant | YES | YES |
| 14.6 Special precautions for user | | | |

| | | | |
|--|--|---|---------------------------|
| Limited quantities 1 L Special provisions 190, 327, 344, 625 Packing Instructions P207, LP200 Special packing provisions PP87, RR6, L2 Transport category 2 Tunnel restriction code (D) | Limited quantities 1 L EmS F-D, S-U | Limited Quantity, Packing Instructions (Ltd Qty, Pkg Inst) Y203 Limited Quantity, Maximum Net Quantity/Package (Ltd Qty, Max Net Qty/Pkg) 30 kg G Packing Instructions (Pkg Inst) 203 Maximum Net Quantity/Package (Max Net Qty/Pkg) 25 kg Special provisions A145, A167, A802 | Limited quantities 1 L |
| 14.7 Maritime transport in bulk according to IMO instruments | | | |
| | Goods may not be carried in bulk in bulk containers, containers or vehicles. | | |

SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)
- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)
not applicable

Regulation EC 648/2004 on detergents

No information.

Special instructions

Water hazard class 2 (self-assessment): hazardous for water.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Indication of changes

2.1 Classification of the substance or mixture 5.3 Advice for firefighters 8.2 Exposure controls 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Key literature references and sources for data

No information.

Abbreviations and acronyms

ATE - Acute Toxicity Estimate

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

CEN - European Committee for Standardisation

C&L - Classification and Labelling

CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

CAS# - Chemical Abstracts Service number

CMR - Carcinogen, Mutagen, or Reproductive Toxicant

CSA - Chemical Safety Assessment

CSR - Chemical Safety Report

DMEL - Derived Minimal Effect Level

DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW – see below)
GES - Generic Exposure Scenario
GHS - Globally Harmonized System
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes
IT - Information Technology
IUCLID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre
Kow - octanol-water partition coefficient
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)
LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration
PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure
SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure
(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases

H220 Extremely flammable gas.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H280 Contains gas under pressure; may explode if heated.
H302 Harmful if swallowed.
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.
H412 Harmful to aquatic life with long lasting effects.



- ☑ Provided correct labelling of the product
- ☑ Compliance with the local legislation
- ☑ Provided correct classification of the product
- ☑ Provided adequate transport data

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