

SAFETY DATA SHEET

ZINC SULFATE MONOHYDRATE

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

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| 1.1 Product identifier: | |
| CAS Number: | 7446-19-7 |
| EC number: | 231-793-3 |
| 1.2 SYNONYMS: | <ul style="list-style-type: none">• Zinc Sulphate Monohydrate• Zinc Sulfate, 1-Hydrate• Zinc(II) sulfate monohydrate• Zinc Sulphate, 1-Hydrate |

SECTION 2: Hazards identification:

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| 2.1 Classification of the substance or mixture: | Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation. |
| 2.2 Label elements: | Labelling according to Regulation (EC) No 1272/2008 Carcinogenicity (Category 1B) Mutagenicity (Category 1B) Acute toxicity, inhalation (Category 3) Acute toxicity, oral (Category 3) Acute toxicity, dermal (Category 3) Serious eye damage/ eye irritation (category 1) Skin corrosion/ irritation (Category 2) Specific Target Organ Toxicity - Single Exposure (Category 1) Specific Target Organ Toxicity - Repeated Exposure (Category 2) Hazardous to the aquatic environment (Acute toxicity, Category 1) Hazardous to the aquatic environment (Chronic toxicity, Category 1) |

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| Hazard Pictograms: |  |
| Signal Word: | Danger |
| Hazard statements: | <p>H302: Harmful if swallowed H315: Causes skin irritation H319: Causes serious eye irritation H335: May cause respiratory irritation</p> |
| Precautionary Statements: | <p>P264: Wash hands thoroughly after handling. P270: Do not eat, drink, or smoke when using this product. P280: Wear protective gloves, eye protection, and face protection. P304+P340: If inhaled, remove person to fresh air and keep comfortable for breathing. P301+P312: If swallowed, call a poison center or doctor if you feel unwell. P363: Wash contaminated clothing before reuse.</p> |
| 2.3 Other hazards: | |
| Inhalation: | can cause severe respiratory irritation, toxic effects on the nervous system, and potentially fatal outcomes |
| Ingestion: | can lead to severe toxicity, causing damage to the nervous system, gastrointestinal distress, and potentially life-threatening effects. |
| Skin Contact: | can cause irritation, absorption through the skin, and toxic effects on the nervous system. |
| Eye contact: | can cause serious irritation, redness, and potential damage to the eye tissue. |
| Chronic Exposure: | can lead to long-term damage to the nervous system, including symptoms such as neuropathy, muscle weakness, and impaired |

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| | motor function, as well as an increased risk of cancer and reproductive toxicity. |
| Aggravation of pre-existing conditions: | may aggravate pre-existing conditions such as neurological disorders, skin conditions, or respiratory issues, and can worsen symptoms in individuals with compromised liver or kidney function. |

SECTION 3: Composition/information on ingredients

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| 3.1 Chemical characterisation: | Substances |
| CAS No: | Description: 7446-19-7 ZINC SULFATE MONOHYDRATE |
| Identification number(s): | EC number: 231-793-3 |

SECTION 4: First aid measures

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| 4.1 Description of first aid measures | |
| General information: | |
| After inhalation: | If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| After skin contact: | Remove contaminated clothing. Wash with soap and water. Consult a physician. |
| After eye contact: | Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician. |
| After swallowing: | Rinse mouth with water. Immediately after ingestion. Never give anything by mouth to an unconscious person. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - |

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| | 40 g in a 10% slurry) and consult a doctor as quickly as possible. |
| 4.2 Most important symptoms and effects, both acute and delayed: | Acute exposure can cause skin and eye irritation, respiratory distress, and toxicity to the nervous system, while delayed effects can involve chronic neurological damage, cancer, and reproductive harm. |
| 4.3 Indication of any immediate medical attention and special treatment needed: | Treat symptomatically. |

SECTION 5: Firefighting measures

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| 5.1 Extinguishing media: | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| 5.2 Special hazards arising from the substance or mixture: | Sulfur oxides Zinc/zinc oxides Not combustible. Ambient fire may liberate hazardous vapours. |
| 5.3 Advice for firefighters: | In the event of fire, wear self-contained breathing apparatus. |
| 5.4 further information: | Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system. |

SECTION 6: Accidental release measures

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| 6.1 Personal precautions, protective equipment and emergency procedures: | Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. |
| 6.2 Environmental precautions: | Do not enter this chemical into drains. |
| 6.3 Methods and material for containment and cleaning up: | Take up spill into absorbent material, e.g.: sand, earth, vermiculite, powdered limestone. |

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| | Scoop absorbed substance into closing containers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling. |
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SECTION 7: Handling and storage

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| 7.1 Precautions for safe handling: | Wear safety goggles or a face shield to prevent eye contact protective clothing to avoid skin irritation, especially when handling the material in powder or dust form. Use a dust mask or respirator if there is a risk of inhaling zinc sulfate dust or mist. |
| 7.2 Conditions for safe storage, including any incompatibilities: | Store in original containers. Keep containers securely sealed Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Store in a dry and dark area. |
| Requirements to be met by storerooms and receptacles: | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |
| 7.3 Specific end uses: | no data available |

SECTION 8: Exposure controls/personal protection

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| 8.1 Control parameters | |
| Additional information about design of technical facilities: | A system of local and general exhaust is recommended. |
| 8.2 Exposure controls | |
| Appropriate engineering controls | Handle in accordance with good industrial hygiene and safety |

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| | practice. Wash hands before breaks and at the end of workday. |
| Personal protective equipment: | Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc. |
| General protective and hygienic measures: | Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment. |
| Respiratory protection: | Required. |
| Protection of hands: | Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands. |
| Eye protection: | Required |
| Protection of Body: | When handling Zinc Sulfate Monohydrate, it is crucial to use appropriate personal protective equipment to prevent exposure and minimize health risks. |

SECTION 9: Physical and chemical properties

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| 9.1 Information on basic physical and chemical properties | |
| General Information | |
| Appearance: Form: | powder |
| Colour: | beige |
| Odour: | No data available |
| pH-value: | No data available |
| Melting point/Melting range: | No data available |
| Boiling point/Boiling range: | No data available |
| Flammability (solid, gaseous): | The product is not flammable. |
| Ignition temperature: | No data available |
| Decomposition temperature: | No data available |
| Self-igniting: | No |
| Flash point: | No data available |

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| Danger of explosion: | No |
| Explosion limits: Lower: | No data available |
| Explosion limits: Upper: | No data available |
| Vapour pressure: | No data available |
| Density at 20 °C: | 3,2 g/cm ³ |
| Relative density: | No data available |
| Vapour density: | No data available |
| Evaporation rate: | No data available |
| Solubility in / Miscibility with- water at 20 °C: | Readily miscible |
| Partition coefficient:(n- octanol/water) | No data available |
| Viscosity: | No data available |

SECTION 10: Stability and reactivity

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| 10.1 Reactivity | No data available |
| 10.2 Chemical stability | The product is chemically stable under standard ambient conditions (room temperature). |
| 10.3 Possibility of hazardous reactions | No data available |
| 10.4 Conditions to avoid | Avoid moisture. |
| 10.5 Incompatible materials | No data available |
| 10.6 Hazardous decomposition products | No data available |

SECTION 11: Toxicological information

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| 11.1 Information on toxicological effects | |
| Acute Toxicity: | LD50 (Oral, Rat) : 926 mg/kg LD50 (Dermal, Rabbit) : 2.000 mg/kg LC50 (Inhalation Rat) : No data available |
| Skin corrosion/Irritation: | No skin irritation |
| Serious eye damage/irritation: | Causes eye irritation |
| Respiratory damage/irritation: | Causes skin irritation |
| Ingestion: | No data available |
| Germ cell mutagenicity: | No data available |

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| Carcinogenicity: | No data available |
| Reproductive toxicity: | No data available |
| Specific target organ toxicity - single exposure: | No data available |
| Specific target organ toxicity - repeated exposure: | Organs such as liver, kidneys, nervous system, or respiratory system. |
| Aspiration hazard: | No data available |
| Signs and Symptoms of Exposure: | Refer section 2.3 |
| 11.2 Additional toxicological information | |
| Biodegradability: | Readily biodegradable |

SECTION 12: Ecological information

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| 12.1 Toxicity Aquatic toxicity: | LC50(fish): 0,330 mg/l (96hr) EC50(daphnia): 1,4 mg/l (48hr) EC50(Pseudokirchneriella subcapitata): 64,8 mg/l (72hr) |
| 12.2 Persistence and degradability: | Readily biodegradable. |
| 12.3 Bioaccumulative potential: | No data available |
| 12.4 Mobility in soil: | No data available |
| 12.5 Other adverse effects: | Discharge into the environment must be avoided |

SECTION 13: Disposal considerations

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| 13.1 Waste treatment methods | |
| Uncleaned packaging Recommendation: | dispose of in accordance with local hazardous waste regulations |
| Recommended cleansing agents: | water, diluted alcohol, and mild detergents. |

SECTION 14: Transport information

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| 14.1 UN-Number · ADR, ADN, IMDG, IATA: | 3077 |
| 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA: | ZINC SULPHATE MONOHYDRATE |
| 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA : | 9 |
| 14.4 Packing group · ADR, IMDG, IATA: | 3 |

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| 14.5 Environmental hazards: | Yes |
| 14.6 Special precautions for user: | Handle responsibly. |

SECTION 15: Regulatory information

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| 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU | Directive 2012/18/EU, under that this substance is not classified in listed substance. |
| Named dangerous substances: | This substance is not listed in the annex 1 to the directive. |
| 15.2 Chemical safety assessment: | Chemical assessment has been carried out under REACH regulation |

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.