

ZINC SULFATE HEPTAHYDRATE

SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

Product Name: ZINC SULFATE HEPTAHYDRATE

Product Code: 3508

CAS#: 7446-20-0

Synonym: Not available

Chemical Name: Not available

Chemical Formula: $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$

Formula weight: 287.55

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

Composition:

Name: Zinc sulfate heptahydrate

Toxicological Data on Ingredients: Acute Tox. 4; Eye Dam. 1;

Aquatic Acute 1; Aquatic Chronic 1; H302, H318

SECTION 3: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Serious eye damage (Category 1), H318

Potential Acute Health Effects:

Acute toxicity, Oral (Category 4), H302

Short-term (acute) aquatic hazard (Category 1), H400

Potential Chronic Health Effects :

Long-term (chronic) aquatic hazard (Category 1), H410

Carcinogenic Effects: Not available

Mutagenic Effects: Not available.

Teratogenic Effects: Not available.

Developmental Toxicity: Not Available

Specific target organ toxicity - Not available

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled If breathed in: Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Flush eyes with water as a precaution.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delay: No data available

Indication of any immediate medical attention and special treatment needed: No data available

SECTION 5: FIRE AND EXPLOSION DATA

Extinguishing media

Suitable extinguishing media :



Water Foam Carbon dioxide (CO₂) Dry powder. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Sulfur oxides

Zinc/zinc oxides

Not combustible.

Ambient fire may liberate hazardous vapours.

Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

Environmental precautions Do not let product enter drains.

Methods and materials for containment and cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Work under hood. Do not inhale substance/mixture.

Conditions for safe storage, including any incompatibilities

Tightly closed. Dry.

Hygroscopic.

Storage Class:

Not available.

Specific end use(s) A part from the uses:

No other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls

Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection 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 and good laboratory practices. Wash and dry hands.

Body Protection Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance Form

: Powder, Crystalline

Colour

: White

Odour

: Not available



| | |
|--|-----------------|
| Odour Threshold | : Not available |
| pH | : Not available |
| Melting point/freezing point | : 100°C |
| Initial boiling point and boiling range | : Not available |
| Flash point | : Not available |
| Evaporation rate | : Not available |
| Flammability (solid, gas) | : Not available |
| Upper/lower flammability or explosive limits | : Not available |
| Vapour pressure | : Not available |
| Vapour density | : Not available |
| Relative density | : Not available |
| Water solubility | : Not available |
| Partition coefficient | : Not available |
| Auto-ignition temperature | : Not available |

SECTION 10: STABILITY AND REACTIVITY DATA

Reactivity no data available

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agent

Conditions to avoid :

Not available.

Incompatible materials

Metals

Hazardous decomposition products Other decomposition products - In the event of fire

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute Toxicity:

LD50 Oral - Mouse - male - 926 mg/kg

LD50 Dermal - Rat - male and female - > 2.000 mg/kg

Skin corrosion/irritation no data available

Serious eye damage/eye irritation Serious eye damage (Category 1), H318

Respiratory or skin sensitization no data available

Carcinogenicity no data available

SECTION 12: ECOLOGICAL INFORMATION

Toxicity:

Toxicity to fish static test LC50 - Pimephales promelas (fathead minnow) - 0,330mg/l - 96 h

Toxicity to daphnia static test EC50 - Daphnia magna (Water flea) - 1,4 mg/l - 48 h

and other aquatic

invertebrates

Toxicity to algae EC50 - Chlorella vulgaris (Fresh water algae) - 64,8 mg/l - 72 h

Toxicity to bacteria static test EC50 - activated sludge - 5,2 mg/l - 3 h

Persistence and degradability:

Not Available

Bioaccumulative potential :



Bioaccumulation Channa punctata - 45 d

at 27 °C(Zinc(II) sulfate heptahydrate)

Bioconcentration factor (BCF): 0,4

Mobility in soil no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available

Other adverse effects no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods Product Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

UN number:

ADR/RID: 3077

IMDG: 3077

IATA: 3077

UN proper shipping name

ADR/RID: Zinc(II) sulfate (heptahydrate)

IMDG: Zinc(II) sulfate (heptahydrate)

IATA: Zinc(II) sulfate (heptahydrate)

Transport hazard class(es):

ADR/RID: 9

IMDG: 9

IATA: 9

Packaging group:

ADR/RID: III

IMDG: III

IATA: III

Environmental hazards:

ADR/RID: No

IMDG Marine pollutant: No

IATA: No

SECTION 15: OTHER REGULATORY INFORMATION

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Other regulations

Take note of Dir 94/33/EC on the protection of young people at work.

SECTION 16: OTHER INFORMATION

References: Full text of H AND R-Statements.

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Special Considerations: Not available

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