

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



46350 Zinc Sulphide

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Revised edition: 22.12.2022

Version: 4.4

Printed: 25.04.2025

1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1. Product Identifier

Product Name: Zinc Sulphide

Article No.: 46350

UFI: --

1.2. Relevant identified Uses of the Substance or Mixture and Uses advised against

Identified uses:

*Production of paints, printing colors and putties
Additive, fillers, colorants, pigments*

Uses advised against:

*Not for cosmetics, foods additives, medicine, feed additives,
permanent implants*

1.3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

Company: Kremer Pigmente GmbH & Co. KG

Address: Hauptstr. 41-47, 88317 Aichstetten, Germany

Tel./Fax.: Tel +49 7565 914480, Fax +49 7565 1606

Internet: www.kremer-pigmente.com

E-Mail: info@kremer-pigmente.com

Importer: --

1.4. Emergency No.

Emergency No.: +49 7565 914480 (Mon-Fri 8:00 - 17:00)

1.4.2 Poison Center:

2. Hazards Identification

2.1. Classification of the Substance or Mixture

*Classification according to Regulation
(EC) No. 1272/2008 (CLP/GHS)*

Skin sensitization, hazard category 1A

Possible Environmental Effects:

2.2. Label Elements

*Classification according to Regulation
(EC) No. 1272/2008 (CLP/GHS)*

No classification required according to the CLP/GHS guidelines.

Hazard designation:

Not applicable.

Signal word:

Hazard designation:

Safety designation:

Hazardous components for labelling:

2.3. Other Hazards

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Dust may be produced when working with this material, which can cause a mechanical irritation of eyes, nose and respiratory tract.

3. Composition/Information on Ingredients

3.1. Substance

3.2. Mixture

Chemical Characterization: Zinc sulphide, ZnS

Information on Components / Hazardous Ingredients:

Zinc sulphide, ZnS; REACH Reg. No. 01-2119474779-15-0000	95 - 100 %	CAS-Nr: 1314-98-3 EINECS-Nr: 215-251-3 EC-Nr:
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Additional information:

4. First Aid Measures

4.1. Description of the First Aid Measures

General information:

No special measures required.

After inhalation:

*Supply fresh air.
Consult physician if symptoms persist.*

After skin contact:

*Remove contaminated clothing and shoes immediately.
Wash with soap and rinse with plenty of water.*

After eye contact:

*Rinse eyes with water.
Remove contact lens.
Protect unharmed eye.
Seek medical attention if irritation persists.*

After ingestion:

*Rinse mouth with water and drink plenty of water.
Do not give milk or alcoholic beverages to drink.
Never give anything by mouth to an unconscious person.*

4.2. Most important Symptoms and Effects, both Acute and Delayed

Symptoms:

None known.

Effects:

4.3. Indication of any Immediate Medical Attention and special Treatment needed

Treatment:

Treat symptomatically.

5. Fire-Fighting Measures

5.1. Extinguishing Media

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Suitable extinguishing media:

Use extinguishing media for surrounding fire.

Unsuitable extinguishing media:

Water with full jet.

5.2. Special Hazards arising from the Substance or Mixture

Special hazards:

In case of fire: formation of sulfur oxides.

5.3. Advice for Firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Usual measures for chemical fires.

Further information:

6. Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions:

Avoid formation of dust.

6.2. Environmental Precautions

Environmental precautions:

No special measures required.

6.3. Methods and Material for Containment and Cleaning Up

Methods and material:

Take up mechanically and collect in suitable containers for disposal.

Avoid dust formation.

6.4. Reference to other Sections

No information available.

7. Handling and Storage

7.1. Precautions for Safe Handling

Instructions on safe handling:

Wear adequate protective clothing (see para. 8).

Hygienic measures:

Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work.

7.2. Conditions for Safe Storage, including any Incompatibilities

Storage conditions:

Store in tightly sealed containers in a dry and well ventilated location.

Requirements for storage areas and containers:

Electrical installation/working materials must comply with the technological safety standards.

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Information on fire and explosion protection:

Avoid dust formation.

Storage class:

13; Non combustible solids (TRGS 510)

Further Information:

7.3. Specific End Use(s)

Further information:

8. Exposure Controls/Personal Protection

8.1. Parameters to be Controlled

Does not contain substances with occupational exposure limits.

Parameters to be controlled (DE):

Parameters to be controlled:

Derived No-Effect Level (DNEL):

PNEC (Predicted No-Effect Concentration):

Additional Information:

8.2. Exposure Controls

Technical protective measures:

Provide adequate ventilation/exhaust system.

Personal Protection

General protective measures:

Do not eat, drink or smoke during work.

Respiratory protection:

None required under normal operating conditions.

Hand protection:

Protective gloves recommended in case of prolonged or repeated contact.

Protective glove material:

Eye protection:

Safety glasses (EN 166)

Body protection:

Protective clothing.

Environmental precautions:

9. Physical and Chemical Properties

9.1. Information on Basic Physical and Chemical Properties

Form: powder

Color: white

Odor: odorless

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<i>Odor threshold:</i>	<i>no information available</i>
<i>pH-Value:</i>	<i>ca. 7</i>
<i>Melting temperature:</i>	<i>> 800°C (subl.)</i>
<i>Boiling temperature:</i>	<i>not applicable</i>
<i>Flash point:</i>	<i>not applicable</i>
<i>Evaporation rate:</i>	<i>No information available.</i>
<i>Flammability (solid, gas):</i>	<i>not flammable</i>
<i>Upper explosion limit:</i>	<i>no information available</i>
<i>Lower explosion limit:</i>	<i>no information available</i>
<i>Vapor pressure:</i>	<i>not applicable</i>
<i>Vapor density:</i>	<i>No information available.</i>
<i>Density:</i>	<i>4 g/cm³ (20°C)</i>
<i>Solubility in water:</i>	<i>< 0,0005 g/l (20°C)</i>
<i>Coefficient of variation (n-Octanol/Water):</i>	<i>not applicable</i>
<i>Auto-ignition temperature:</i>	<i>Product is not auto-ignitable.</i>
<i>Decomposition temperature:</i>	<i>No data available.</i>
<i>Viscosity, dynamic:</i>	<i>not applicable</i>
<i>Explosive properties:</i>	
<i>Oxidizing properties:</i>	<i>not oxidizing</i>
<i>Bulk density:</i>	<i>not determined</i>

9.2. Further Information

Solubility in solvents:

Viscosity, kinematic:

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Burning class:

Solvent content:

Solid content:

Particle size:

Particle size: 0.21 - 1.22 µm. Transmission Electron Microscopy (TEM), volume based

Other information:

10. Stability and Reactivity

10.1. Reactivity

Stable if used according to specifications.

10.2. Chemical Stability

Stable if used according to specifications.

10.3. Possibility of Hazardous Reactions

Unknown.

10.4. Conditions to Avoid

Conditions to avoid:

No information available.

Thermal decomposition:

10.5. Incompatible Materials

Acids

10.6. Hazardous Decomposition Products

*Sulphur oxides (SO_x)
Hydrogen sulfide gas.*

10.7. Further Information

11. Toxicological Information

11. 1. Information on Hazard Classes as defined in Regulation (EC) No. 1272/2008

Acute Toxicity

LD50, oral:

Zinc sulphide (1314-98-3): > 15000 mg/kg (rat; OECD 401)

LD50, dermal:

Not harmful to health.

LC50, inhalation:

Zinc sulphide (1314-98-3): > 5.7 mg/kg (4h, rat; OECD 403)

Primary effects

Irritant effect on skin:

Zink sulphide: no skin irritation

Irritant effect on eyes:

Zinc sulphide: no irritating effect

Inhalation:

No information available.

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Ingestion:

No information available

Sensitization:

Non sensitizing.

Mutagenicity:

No mutagenic effects observed.

Reproductive toxicity:

No negative effects.

Carcinogenicity:

No cancerogenic effect (in animal studies).

Teratogenicity:

Specific target organ toxicity (STOT):

Single exposure: no information available.

Repeated exposure: Swallowing; Target organs: brain, thyroid gland, thymus, eyes, pituitary gland, kidneys, liver, spleen, adrenal glands, testicles, female reproductive organs, muscle. Evaluation: no significant effects at a concentration of 300 mg/kg bw/day.

Aspiration hazard:

No risk of aspiration.

11. 2. Information on other Hazards

Endocrine Disrupting Properties:

This substance/mixture does not contain any components with endocrine disrupting properties in a percentage of 0.1 or greater, according to Article 57(f) of the REACH Regulation (EC) No. 1907/2006 or the Delegated Regulation (EC) 2017/2100 or the Delegated Regulation (EC) 2018/605.

12. Ecological Information

12. 1. Aquatic Toxicity

Zinc sulphide:

Fish toxicity:

EC50: 100 mg/l ((96h, Danio rerio; OECD 203)

Daphnia toxicity:

EC50: 100 mg/l (48h, Daphnia magna; OECD 202)

Bacteria toxicity:

No data available.

Algae toxicity:

EC50: 100 mg/l (72h, Scenedesmus subspicatus; OECD 202)

12. 2. Persistency and Degradability

Zinc sulphide: does not contain any substances which are environmentally hazardous substances nor any which are not biodegradable.

12. 3. Bioaccumulation

No information available.

12. 4. Mobility

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Adsorption to solid soil phase is not expected.

12. 5. Results of PBT- und vPvP Assessment

On the basis of available data, the product does not contain any PBT or vPvB substances in percentage greater than 0.1 %.

12. 6. Endocrine Disrupting Properties

This substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) No. 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1 % or higher.

12. 7. Other Adverse Effects

Water hazard class:

Not hazardous.

Behaviour in sewage systems:

Further ecological effects:

AOX Value:

13. Disposal Considerations

13. 1. Waste Treatment Methods

Product:

Product residues and non recyclable solutions have to be discarded by a recognized disposal company.

European Waste Code (EWC):

Uncleaned packaging:

Empty containers should be taken to an approved waste handling site for recycling or disposal.

Waste Code No.:

14. Transport Information

14. 1. UN Number

ADR, IMDG, IATA

14. 2. UN Proper Shipping Name

ADR/RID:

No hazardous goods according to ADR / DOT (US) (land transportation).

IMDG/IATA:

Not hazardous goods

14. 3. Transport Hazard Classes

ADR Class:

not applicable

Hazard no.:

Classification code:

Tunnel restriction code:

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IMDG Class (sea):

not applicable

Hazard no.:

EmS No.:

IATA Class:

not applicable

Hazard no.:

14. 4. Packaging Group

ADR/RID:

not applicable

IMDG:

IATA:

14. 5. Environmental Hazards

None

14. 6. Special Precautions for User

Not classified as a dangerous good under transport regulations.

14. 7. Maritime Transport in Bulk according to IMO Instruments

not applicable

14. 8. Further Information

15. Regulatory Information

15. 1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

Water hazard class:

0, not hazardous (German Regulation)

Local regulations on chemical accidents:

Employment restrictions:

Restriction and prohibition of application:

Technical instructions on air quality:

15. 2. Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this product.

EC SVHC-List: This product does not contain a substance in the candidate list for substances of very high concern (REACH Regulation (EC) 1907/2006, Article 57)

15. 3. Further Information

Listed in the following inventories:

EINECS (EU), TSCA (US), AICS (AUS), DSL (CA), ENCS (JP), PICCS (PH), KECI (KR), IECSC (CN), NZIoC (NZ), TCSI (TW)

Regulation (EC) 1005/2009 - Substances that Deplete the Ozone Layer: not regulated / not applicable

Regulation (EC) 850/2004 - Persistent Organic Pollutants and amending Directive 79/117/EEC: not regulated / not applicable

16. Other Information

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This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.