

SAFETY DATA SHEET

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Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: Zinksulfid

Print date: 16.04.20

Version: 6 / DE

Date revised: 05.02.2019

Replaces Version: - / DE

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

1.1. Product identifier

Zinksulfid

Registration no.

EC No.: 215-251-3
Registration no. 01-2119475779-15-XXXX
CAS No. 1314-98-3

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

Use of the substance/preparation ***

Colourant

Identified Uses

Manufacture of paints, printing inks and putty, additives, fillers, dyes, pigments.

Uses advised against

Not for cosmetics, food additives, medicines, feed additives or permanent implants. In the absence of such experience or data, the supplier can not approve these uses.

1.3. Details of the supplier of the safety data sheet

Adresse:

Deffner & Johann GmbH
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D-97520 Röthlein
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1.4 Notfall-Nummer: +49 (0) 9723 9350-0 (Mo. – Fr. 7:30 – 15:00 Uhr)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Voluntary product information following the Safety Data Sheet format
This product is not classified hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

The product does not require a hazard warning label in accordance with Regulation (EC) No 1272/2008.

2.3. Other hazards

Dust loading

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

Zinc sulfide

SECTION 4: First aid measures ***

4.1. Description of first aid measures

General information ***

In case of persistent symptoms consult doctor. If unconscious place in recovery position and seek medical advice.

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After inhalation ***

If decomposition products are inhaled, remove the affected person to a source of fresh air and keep him calm. Provide medical aid. When dust is intensively inhaled, seek medical help immediately. Keep breathing passages free.

After skin contact ***

Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognised skin cleanser.

After eye contact ***

Rinse the affected eye immediately with plenty of water at the same time keep the unaffected eye well protected. Remove contact lenses. Separate eyelids, wash the eyes thoroughly with water (15 min.). Eye treatment by an Oculist.

After ingestion ***

Drink water in small gulps. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Take medical treatment.

Adhere to personal protective measures when giving first aid

First aider: Pay attention to self-protection!

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

Until now no symptoms known so far.

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

Hints for the physician / treatment

Treat symptomatically

SECTION 5: Firefighting measures ***

5.1. Extinguishing media

Suitable extinguishing media ***

Extinguishing measures to suit surroundings

Non suitable extinguishing media ***

Full water jet

5.2. Special hazards arising from the substance or mixture

In the event of fire the following can be released: Sulphur oxides; Irritant and harmful combustion products.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Use self-contained breathing apparatus. Wear full protective suit.

Other information

Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Do not inhale dust. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol. High risk of slipping due to leakage/spillage of product. Use personal protective clothing. Refer to protective measures listed in Sections 7 and 8. Remove persons to safety.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water.

6.3. Methods and material for containment and cleaning up

Avoid raising dust. Pick up mechanically. When picked up, treat material as prescribed under Section 13 "Disposal".

6.4. Reference to other sections

Information regarding Safe handling, see Section 7. Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid the formation and deposition of dust. Provide exhaust ventilation if dust is formed. Ensure adequate ventilation. Handle and open container with care. Provide suitable exhaust ventilation at the processing machines. Use breathing

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apparatus when transferring large quantities without exhaust ventilation facilities. If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Observe the usual precautions for handling chemicals.

Advice on protection against fire and explosion

No special measures required.

7.2. Conditions for safe storage, including any incompatibilities

Hints on storage assembly

Do not store together with: Acids, Do not store together with foodstuffs.

Further information on storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from direct sunlight. Protect from extreme heat and cold.

SECTION 8: Exposure controls/personal protection ***

8.1. Control parameters

Exposure limit values ***

zinc sulfide

List MAK- und BAT-Werte Liste

Type MAK

Value 0,1 mg/m³

Maximum limit value: I(4); Pregnancy group: C; Status: 2019; Remarks: Zink und seine anorganischen Verbindungen (alveolengängige Fraktion)

zinc sulfide

List MAK- und BAT-Werte Liste

Type MAK

Value 2 mg/m³

Maximum limit value: I(2); Pregnancy group: C; Status: 2019; Remarks: Zink und seine anorganischen Verbindungen (einatembare Fraktion)

Other information

The national general dust limit must be observed.

TRGS 900: Observe the general dust threshold.

8.2. Exposure controls

General protective and hygiene measures

Do not inhale dust/fumes/aerosols. Avoid contact with skin and eyes. Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Use barrier skin cream. Observe the usual precautions for handling chemicals. Take off immediately all contaminated clothing.

Respiratory protection

If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Particle filter P2; Use breathing apparatus in dust-laden atmosphere.

Hand protection

Protective gloves

Observe the information of the glove manufacturers on permeability and breakthrough times and other workplace requirements.

Eye protection

Safety glasses with side protection shield

Body protection

Clothing as usual in the chemical industry.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form Powder

Colour see tradename

Odour characteristic

Odour threshold

Remarks not determined

pH value

Value appr. 7

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Source	Literature value		
Melting point			
Value	> 800		
Source	Literature value		
Freezing point			
Remarks	not determined		
Initial boiling point and boiling range			
Remarks	Not applicable		
Flash point			
Remarks	Not applicable		
Evaporation rate (ether = 1) :			
Remarks	not determined		
Flammability (solid, gas)			
Not applicable			
Upper/lower flammability or explosive limits			
Remarks	not determined		
Vapour pressure			
Remarks	Not applicable		
Vapour density			
Remarks	not determined		
Density			
Value	appr. 4		g/ml
Temperature	20	°C	
Source	Literature value		
Solubility in water			
Value	< 0,0005		g/ml
Temperature	20	°C	
Source	Literature value		
Solubility(ies)			
Remarks	not determined		
Partition coefficient: n-octanol/water			
Remarks	Not applicable		
Ignition temperature			
Remarks	Not applicable		
Decomposition temperature			
Remarks	not determined		
Viscosity			
Remarks	Not applicable		
Explosive properties			
evaluation	not known		
Oxidising properties			
evaluation	None known		

SECTION 10: Stability and reactivity**10.1. Reactivity**

Product reacts with: Acids

10.2. Chemical stability

No hazardous reactions known.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

No hazardous reactions known.

Decomposition temperature

Remarks not determined

10.5. Incompatible materials

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Acids

10.6. Hazardous decomposition products

Hydrogen sulphides, sulphurous oxides (SOx)

SECTION 11: Toxicological information ***

11.1. Information on toxicological effects

Acute oral toxicity ***

Species	rat	
LD50	> 15000	mg/kg
Method	OECD 401	
Remarks	Test conducted with a similar formulation.	
Source	Literature value	

Acute dermal toxicity

Remarks	Based on available data, the classification criteria are not met.
Source	Literature value

Acute inhalational toxicity

Species	Rats (male/female)	
LC50	> 5,7	mg/l
Duration of exposure	4	h
Administration/Form	Dust/Mist	
Method	OECD 403	
Remarks	Based on available data, the classification criteria are not met.	
Source	Literature value	

Skin corrosion/irritation

evaluation	non-irritant
Remarks	Frequent persistent contact with the skin can cause skin irritation.
Source	Literature value

Serious eye damage/irritation

evaluation	non-irritant
Remarks	Eye contact with the product may lead to irritation.
Source	Literature value

Sensitization

Remarks	not known
Source	Literature value

Subacute, subchronic, chronic toxicity

Remarks	Based on available data, the classification criteria are not met.
Source	Literature value
Remarks	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Mutagenicity ***

Remarks	Based on available data, the classification criteria are not met.
Source	Literature value

Reproductive toxicity

Remarks	not determined
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Carcinogenicity

Remarks	not determined
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Specific Target Organ Toxicity (STOT)

evaluation	No indications of STOT effects are available.
	Route of exposure oral
	300 mg/kg/d
Source	Literature value
Source	Brain, thyroid, thymus, eye, pituitary, kidney, liver, spleen, adrenal gland, testicle, female reproductive organs, muscle. The product has not been tested. The information is derived from products of similar composition.

Aspiration hazard

No special hazards have to be mentioned.

Experience in practice

Inhalation of dusts may irritate the respiratory tract.

Other information

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By analogy with a product of similar composition.

SECTION 12: Ecological information

12.1. Toxicity

General information

Avoid entry in the environment.

Fish toxicity

Species	zebra fish (Brachydanio rerio)	
EC50	100	mg/l
Duration of exposure	96	h
Method	OECD 203	
Remarks	Slightly water-soluble, it can be removed to a large extent in a chemical purification plant.	
Source	Literature value	

Daphnia toxicity

Species	Daphnia magna	
EC50	100	mg/l
Duration of exposure	48	h
Method	OECD 202	
Remarks	Slightly water-soluble, it can be removed to a large extent in a chemical purification plant.	
Source	Literature value	

Algae toxicity

Species	Scenedesmus subspicatus	
EC50	100	mg/l
Duration of exposure	72	h
Remarks	Slightly water-soluble, it can be removed to a large extent in a chemical purification plant.	
Source	Literature value	

12.2. Persistence and degradability

General information

Not applicable

Biodegradability

Remarks not determined

12.3. Bioaccumulative potential

General information

Not applicable

Partition coefficient: n-octanol/water

Remarks Not applicable

12.4. Mobility in soil

General information

not determined

12.5. Results of PBT and vPvB assessment

General information

Not applicable

12.6. Other adverse effects

General information

not determined

General information / ecology

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

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Product should be taken to a suitable and authorized waste disposal site in accordance with relevant regulations and if necessary after consultation with the waste disposal operator and/or the competent Authorities.

Disposal recommendations for packaging

Packaging that cannot be cleaned should be disposed off as product waste.
Uncontaminated packaging may be taken for recycling.

SECTION 14: Transport information

Land transport ADR/RID

The product does not constitute a hazardous substance in land transport.

Marine transport IMDG/GGVSee

The product does not constitute a hazardous substance in sea transport.

Air transport ICAO/IATA

The product does not constitute a hazardous substance in air transport.

SECTION 15: Regulatory information

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

Water Hazard Class (Germany)

Water Hazard Class (Germany)	Not water hazardous
Remarks	Classification according to Annex 4 VwVwS

Other information

All components are contained in the TSCA inventory or exempted.
All components are contained in the DSL inventory.
All components are contained in the AICS inventory.
All components are contained in the NZIOC inventory.
All components are contained in the ENCS inventory.
All components are contained in the PICCS inventory.
All components are contained in the IECSC inventory.

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route
AGW: Arbeitsplatzgrenzwert
AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances that are hazardous to water)
BGW: Biologischer Grenzwert
CAS: Chemical Abstracts Service
DNEL: Derived no effect level
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
GGVSee: Gefahrgutverordnung See
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Code for Dangerous Goods
LC: Lethal concentration
LD: Lethal dose
MAK: Maximale Arbeitsplatz-Konzentration
NOEC: No observable effect concentration
NOEL: No observable effect level
OECD: Organisation for Economic Co-operation and Development
OEL: Occupational exposure limit
PBT: Persistent, Bioaccumulative and Toxic
PNEC: Predicted no effect concentration
RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses
TRGS: Technische Regeln für Gefahrstoffe

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VDI: Verein Deutscher Ingenieure
VLEP: Valeurs Limites d'exposition Professionnelle
vPvB: Very persistent and very bioaccumulative
WGK: Wassergefährdungsklasse (water hazard class)

Supplemental information

These data is based on our present knowledge and experience respectively supplier-information. This safety data sheet describes the product in regard to the requirements of safety. The information does not represent a assurance for certain properties. Existing laws and regulations are to be observed by the recipient of our products in own responsibility. It is the responsibility of the user, to determine if the product is suitable for the deliberate operational area and the respective intended purpose. A liability for damages in connection with the use of this information is excluded. Relevant changes compared with the previous version of the safety data sheet are marked with: ***