

## SAFETY DATA SHEET

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Die in diesem Produktdatenblatt genannten Spezifikationen dienen nur zur Produktbeschreibung und beziehen sich auf den Zeitpunkt unmittelbar nach der Produktion bzw. Import des Produktes. Sie entsprechen den Angaben des Herstellers. Eine rechtsverbindliche Zusicherung bestimmter Eigenschaften oder der Eignung für einen bestimmten Einsatzzweck kann hieraus nicht abgeleitet werden. Durch unsachgemäßen Transport und / oder unsachgemäße Lagerung können sich Änderungen ergeben. Die Angaben in diesem Produktdatenblatt entbinden den Verarbeiter nicht von eigener Prüfung der Eigenschaften des Produktes und dessen Eignung für die vorgesehene Verwendung.

**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  
Mühläckerstraße 13  
D-97520 Röthlein  
Tel.: +49 (0) 9723 9350-0  
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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/m<sup>3</sup>

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/m<sup>3</sup>

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		
<b>Melting point</b>			
Value	> 800		
Source	Literature value		
<b>Freezing point</b>			
Remarks	not determined		
<b>Initial boiling point and boiling range</b>			
Remarks	Not applicable		
<b>Flash point</b>			
Remarks	Not applicable		
<b>Evaporation rate (ether = 1) :</b>			
Remarks	not determined		
<b>Flammability (solid, gas)</b>			
Not applicable			
<b>Upper/lower flammability or explosive limits</b>			
Remarks	not determined		
<b>Vapour pressure</b>			
Remarks	Not applicable		
<b>Vapour density</b>			
Remarks	not determined		
<b>Density</b>			
Value	appr. 4		g/ml
Temperature	20	°C	
Source	Literature value		
<b>Solubility in water</b>			
Value	< 0,0005		g/ml
Temperature	20	°C	
Source	Literature value		
<b>Solubility(ies)</b>			
Remarks	not determined		
<b>Partition coefficient: n-octanol/water</b>			
Remarks	Not applicable		
<b>Ignition temperature</b>			
Remarks	Not applicable		
<b>Decomposition temperature</b>			
Remarks	not determined		
<b>Viscosity</b>			
Remarks	Not applicable		
<b>Explosive properties</b>			
evaluation	not known		
<b>Oxidising properties</b>			
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: \*\*\*