

## SAFETY DATA SHEET

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Print date: 02.03.20

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Echtblau Mittel

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/preparation**

Colourants for artists, conservators, building- and painter-handcraft

**1.3. Details of the supplier of the safety data sheet****Address**Deffner & Johann GmbH  
Mühlackerstraße 13  
D-97520 Röthlein

Tel. +49 9723 9350-0

Fax +49 9723 9350-25

www.deffner-johann.de

E-Mail: info@deffner-johann.de

**1.4. Emergency telephone number**

+49 9723 9350-0 (Mo. - Fr.: 8:00 - 15:00 Uhr)

**SECTION 2: Hazards identification \*\*\*****2.1. Classification of the substance or mixture**

This product is not classified hazardous in accordance with Regulation (EC) No 1272/2008.

**2.2. Label elements****Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)****Supplemental information \*\*\***

EUH210

Safety data sheet available on request.

**2.3. Other hazards**

Dust loading. Possible dust explosion hazard.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

colourant mixture, inorganic/organic construction

**Further ingredients****Calcium fluoride**

CAS No. 14542-23-5

Concentration  $\geq$  1  $<$  10 % [5]**Note**

[5] Substance with EU occupational exposure limits

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

In case of persistent symptoms consult doctor.

**After inhalation**

Remove the casualty into fresh air and keep him calm. In the event of symptoms take medical treatment.

**After skin contact**

Wash off immediately with soap and water. Consult a doctor if skin irritation persists.

**After eye contact**

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Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Seek medical advice immediately.

**After ingestion**

Rinse mouth thoroughly with water. Call in a physician immediately and show him the Safety Data Sheet.

**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**

Water spray jet, Foam

**Non suitable extinguishing media**

Full water jet, Carbon dioxide

**5.2. Special hazards arising from the substance or mixture**

In the event of fire the following can be released: Sulphur oxides; Carbon monoxide (CO); Carbon dioxide (CO<sub>2</sub>); Nitrogen oxides (NO<sub>x</sub>); Hydrogen sulfide (H<sub>2</sub>S); Hydrogen halide; 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. Use breathing apparatus if exposed to vapours/dust/aerosol. Ensure adequate ventilation. 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 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**

Avoid dust formation. Take action to prevent static discharges. Earthing necessary during loading operations. Keep away from sources of heat and ignition. Dust can form an explosive mixture with air. Do not smoke.

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**7.2. Conditions for safe storage, including any incompatibilities****Hints on storage assembly**

Do not store together with: Acids, Oxidising agents, 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)

**Calcium fluoride**

List 2000/39/EC

Type Indicative Occupational Exposure Limit (EU)

Value 2,5 mg/m<sup>3</sup>

Remarks: Fluorides, inorganic

**Calcium fluoride**

List TRGS 900

Value 1 mg/m<sup>3</sup>

Maximum limit value: 4(II); Skin resorption / sensibilisation: H; Pregnancy group: Y; Status: 12/2007; Remarks: EU, DFG

**Quartz**

Type MAK

Value 0,05 mg/m<sup>3</sup>

Maximum limit value: 8; Status: DGUV 2017; Remarks: Alveolengängige Fraktion, TRGS 559, TRGS-Beurteilungsmaßstab

**Biological limit values****Calcium fluoride**

List TRGS 903

Value 7,0 mg/g creatinine

Parameter Fluoride

Testing material Urine (U)

Test date End of exposure or end of shift.

**Calcium fluoride**

List TRGS 903

Value 4,0 mg/g creatinine

Parameter Fluoride

Testing material Urine (U)

Test date Before next shift.

**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

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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**

<b>Form</b>	Powder
<b>Colour</b>	see tradename
<b>Odour</b>	characteristic

**Odour threshold**

Remarks	not determined
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**pH value**

Remarks	not determined
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**Melting point**

Remarks	not determined
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**Freezing point**

Remarks	not determined
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**Initial boiling point and boiling range**

Remarks	not determined
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**Flash point**

Remarks	Not applicable
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**Evaporation rate (ether = 1) :**

Remarks	not determined
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**Flammability (solid, gas)**

not determined

**Upper/lower flammability or explosive limits**

Remarks	not determined
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**Vapour pressure**

Remarks	not determined
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**Vapour density**

Remarks	not determined
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**Density**

Remarks	not determined
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**Solubility in water**

Remarks	not determined
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**Solubility(ies)**

Remarks	not determined
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**Partition coefficient: n-octanol/water**

Remarks	not determined
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**Ignition temperature**

Remarks	not determined
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**Decomposition temperature**

Remarks	not determined
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**Viscosity**

Remarks	not determined
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**Explosive properties**

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evaluation not determined

**Oxidising properties**

Remarks not determined

**9.2. Other information****Other information**

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**

Static charges. Dust can form an explosive mixture with air. Avoid all sources of ignition: heat, sparks, open flame.

**Decomposition temperature**

Remarks not determined

**10.5. Incompatible materials**

Acids, Reducing agents, Reactions with strong alkalis and oxidising agents.

**10.6. Hazardous decomposition products**Barium oxides, sulphurous oxides (SO<sub>x</sub>), Hydrogen sulfide (H<sub>2</sub>S), nitrous oxides (NO<sub>x</sub>), Chlorine compounds**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute oral toxicity**

Remarks not determined

**Acute dermal toxicity**

Remarks not determined

**Acute inhalational toxicity**

Remarks not determined

**Skin corrosion/irritation**

Remarks not determined

Remarks Frequent persistent contact with the skin can cause skin irritation.

**Serious eye damage/irritation**

Remarks not determined

Remarks Eye contact with the product may lead to irritation.

**Sensitization**

Remarks not determined

**Subacute, subchronic, chronic toxicity**

Remarks not determined

Remarks Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

**Mutagenicity**

Remarks not determined

**Reproductive toxicity**

Remarks not determined

**Carcinogenicity**

Remarks not determined

**Specific Target Organ Toxicity (STOT)**

Remarks not determined

**Other information**

No toxicological data are available.

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**SECTION 12: Ecological information****12.1. Toxicity****General information**

not determined

**12.2. Persistence and degradability****General information**

not determined

**Biodegradability**

Remarks not determined

**12.3. Bioaccumulative potential****General information**

not determined

**Partition coefficient: n-octanol/water**

Remarks not determined

**12.4. Mobility in soil****General information**

not determined

**12.5. Results of PBT and vPvB assessment****General information**

not determined

**12.6. Other adverse effects****General information**

not determined

**General information / ecology**

Ecological data are not available. Do not discharge product unmonitored into the environment.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations for the product**

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 Derivation of WGK according to Annex 1 No. 5.2 AwSV

**Other regulations, restrictions and prohibition regulations**

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VDI 2263 "Dust fires and explosions; Danger, Evaluation, Protection measures".

**15.2. Chemical safety assessment**

For this preparation a chemical safety assessment has not 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  
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: \*\*\*