

# Safety Data Sheet

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



## 44450 Verdigris, synthetic

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Version: 5

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

#### 1.1. Product Identifier

*Product Name:* Verdigris, synthetic

*Article No.:* 44450

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

*Identified uses:*

*Chemical for syntheses  
Pharmaceutical agents*

*Uses advised against:*

#### 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

*EMail:* 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)*

H302	Harmful if swallowed.
Cat.: 4	
H314	Causes severe skin burns and eye damage.
Cat.: 1B	
H400	Very toxic to aquatic life.
Cat.: 1	
H411	Toxic to aquatic life with long lasting effects.
Cat.: 2	

*Possible Environmental Effects:*

#### 2.2. Label Elements

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

*Hazard designation:*



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GHS07



GHS09

*Signal word:*

Danger

*Hazard designation:*

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

*Safety designation:*

P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing.
P310	Immediately call a poison center or physician.
P321	Specific treatment (see label).
P405	Store locked up.
P501	Dispose of contents/ container according to regional, national and international regulations.

*Hazardous components for labelling:*

## 2. 3. Other Hazards

## 3. Composition/Information on Ingredients

### 3. 1. Substance

### 3. 2. Mixture

*Chemical Characterization:*

*Information on Components / Hazardous Ingredients:*

Copper(II)-acetate-1-hydrate	100 %	CAS-Nr: 6046-93-1 EINECS-Nr: 205-553-3 EC-Nr:
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*Additional information:*

## 4. First Aid Measures

### 4. 1. Description of the First Aid Measures

*General information:*

*Remove contaminated clothes immediately.*

*Intoxication symptoms may occur after several hours, therefore a*

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*48 hour medical observation is necessary.*

*After inhalation:*

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

*After skin contact:*

*Wash off immediately with soap and plenty of water and rinse thoroughly.  
Get medical attention.*

*After eye contact:*

*Protect unharmed eye.  
Rinse open eye for several minutes under running water. Should irritation continue, seek medical advice.*

*After ingestion:*

## 4. 2. Most important Symptoms and Effects, both Acute and Delayed

*Symptoms:*

*No further information available.*

*Effects:*

## 4. 3. Indication of any Immediate Medical Attention and special Treatment needed

*Treatment:*

*No further information available.*

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## 5. Fire-Fighting Measures

### 5. 1. Extinguishing Media

*Suitable extinguishing media:*

*Use extinguishing media for surrounding fire.*

*Unsuitable extinguishing media:*

### 5. 2. Special Hazards arising from the Substance or Mixture

*Special hazards:*

*In case of fire: formation of carbon monoxide, carbon dioxide.  
Do not inhale explosion and smoke fumes and gases.*

### 5. 3. Advice for Firefighters

*Protective equipment:*

*Wear self-contained respiratory protective device.*

*Further information:*

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## 6. Accidental Release Measures

### 6. 1. Personal Precautions, Protective Equipment and Emergency Procedures

*Personal precautions:*

*Avoid formation of dust, wear protective clothing.*

### 6. 2. Environmental Precautions

*Environmental precautions:*

*Prevent contamination of soils, drains and surface water.  
Contact local authorities if product pollutes soil or vegetation.*

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## 6. 3.      **Methods and Material for Containment and Cleaning Up**

*Methods and material:*

*Use neutralizing agents.*

*Clean up mechanically. Transfer liquids and solid diking material to separate suitable containers for recovery or disposal.*

*Dispose of contaminated material as waste according to section 13.*

## 6. 4.      **Reference to other Sections**

*For information for safe handling see Section 7.*

*Dispose of contaminated material according to Section 13.*

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## 7.      **Handling and Storage**

### 7. 1.      **Precautions for Safe Handling**

*Instructions on safe handling:*

*Avoid formation and deposition of dust. Provide adequate ventilation.*

*Hygienic measures:*

*Change contaminated clothing. Preventive skin protection recommended. Wash hands after work.*

### 7. 2.      **Conditions for Safe Storage, including any Incompatibilities**

*Storage conditions:*

*Store in tightly sealed containers in a dry and cool room.  
Do not store together with acids.*

*Requirements for storage areas and containers:*

*Store product in closed containers.*

*Information on fire and explosion protection:*

*No special measures necessary.*

*Storage class:*

*Further Information:*

### 7. 3.      **Specific End Use(s)**

*Further information:*

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## 8.      **Exposure Controls/Personal Protection**

### 8. 1.      **Parameters to be Controlled**

*Parameters to be controlled (DE):*

*No occupational exposure limits known.*

*Parameters to be controlled:*

*Derived No-Effect Level (DNEL):*

*Predicted No-Effect Concentration (PNEC):*

*Additional Information:*

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## 8.2. Exposure Controls

**Technical protective measures:**

### Personal Protection

*General protective measures:*

*The usual precautionary measures are to be adhered to when handling chemicals.*

*Remove contaminated clothing immediately.*

*Avoid contact with skin, eyes and clothing.*

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

**Respiratory protection:**

*Respirator mask required if ventilation is insufficient. Wear filter respirator in case of short-term or low exposure, and wear a self-contained breathing apparatus in case of long-term or higher exposure.*

*Hand protection:*

*Protective gloves. The glove material has to be impermeable and resistant to the product / substance / preparation.*

*Protective glove material:*

*Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers.*

**Eye protection:**

*Tightly fitting safety goggles (EN 166).*

**Body protection:**

*Protective clothing.*

**Environmental precautions:**

## 9. Physical and Chemical Properties

### 9.1. Information on Basic Physical and Chemical Properties

**Form:** *crystalline*

*Color:* *bright blue*

Odor: *characteristic*

Odor threshold: not determined

*pH-Value:* 5 (20 g/l; 20°C)

*Melting temperature:* 115°C

Boiling temperature: not determined

Flash point: not applicable

Evaporation rate: No information available.

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#### *Flammability (solid, gas):*

*not flammable*

#### *Upper explosion limit:*

*not determined*

#### *Lower explosion limit:*

*not determined*

#### *Vapor pressure:*

*not applicable*

#### *Vapor density:*

*No information available.*

#### *Density:*

*1.88 g/cm<sup>3</sup> (20°C)*

#### *Solubility in water:*

*65 g/l*

#### *Coefficient of variation (n-Octanol/Water):*

*no information available*

#### *Auto-ignition temperature:*

*No information available.*

#### *Decomposition temperature:*

*No decomposition when used properly.*

#### *Viscosity, dynamic:*

*not applicable*

#### *Explosive properties:*

*Risk of explosion when mixed with combustible substances.*

#### *Oxidizing properties:*

#### *Bulk density:*

### 9.2. Further Information

#### *Solubility in solvents:*

#### *Viscosity, kinematic:*

#### *Burning class:*

#### *Solvent content:*

#### *Solid content:*

#### *Particle size:*

#### *Other information:*

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## 10. Stability and Reactivity

### 10.1. Reactivity

*No information available.*

### 10.2. Chemical Stability

*Stable if used according to specifications.*

### 10.3. Possibility of Hazardous Reactions

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*Reacts with acids.*

#### 10.4. Conditions to Avoid

*Conditions to avoid:*

*Avoid heat.*

*Thermal decomposition:*

#### 10.5. Incompatible Materials

*None known.*

#### 10.6. Hazardous Decomposition Products

*Acetic acid.*

*Carbon monoxide and dioxide.*

#### 10.7. Further Information

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### 11. Toxicological Information

#### 11.1. Information on Toxicological Effects

*Acute Toxicity*

*LD50, oral:*

*300-2000 mg/kg (rat; OECD 402)*

*Harmful if swallowed.*

*LD50, dermal:*

*> 2000 mg/kg (rat)*

*LC50, inhalation:*

*No information available.*

*Primary effects*

*Irritant effect on skin:*

*Causes severe burns.*

*Irritant effect on eyes:*

*Causes serious eye irritation.*

*Inhalation:*

*No information available.*

*Ingestion:*

*No information available*

*Sensitization:*

*No sensitizing effects known.*

*Mutagenicity:*

*No mutagenic effects known.*

*Reproductive toxicity:*

*No reproductive toxicity expected.*

*Carcinogenicity:*

*No cancerogenic effect known.*

*Teratogenicity:*

*No relevant data found.*

*Specific target organ toxicity (STOT):*

*No negative effects.*

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*Additional toxicological information:*

*Aspiration hazard: no data available*

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## 12. Ecological Information

### 12. 1. Aquatic Toxicity

*Very toxic for aquatic organisms.*

*Fish toxicity:*

*Daphnia toxicity:*

*Bacteria toxicity:*

*Algae toxicity:*

### 12. 2. Persistency and Degradability

*No information available.*

### 12. 3. Bioaccumulation

*No information available.*

### 12. 4. Mobility

*No information available.*

### 12. 5. Results of PBT- und vPvP Assessment

*Not applicable.*

### 12. 6. Other Adverse Effects

*Water hazard class:*

*3, hazardous*

*Danger to drinking water even if small quantities leak into the ground. Also poisonous for fish and plankton in water bodies.*

*Do not allow undiluted product or large quantities of it to reach ground water, waterways or sewage system.*

*Danger to drinking water even if small quantities leak into the ground.*

*Behaviour in sewage systems:*

*Further ecological effects:*

*AOX Value:*

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## 13. Disposal Considerations

### 13. 1. Waste Treatment Methods

*Product:*

*Must not be disposed together with household garbage.*

*Do not let product enter water systems.*

*European Waste Code (EWC):*

*Uncleaned packaging:*

*Dispose of according to official local regulations.*

*Waste Code No.:*

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## 14. Transport Information

### 14. 1. UN Number

*ADR, IMDG, IATA*

*2923*

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## 14. 2. UN Proper Shipping Name

*ADR/RID:*      *ÄTZENDER FESTER STOFF, GIFTIG, N.A.G. (Kupfer(II)-acetat-1-hydrat), UMWELTGEFÄHRDEND*

*IMDG/IATA:*      *CORROSIVE SOLID, TOXIC, N.O.S. (Copper(II) Acetate 1-hydrate), MARINE POLLUTANT*

## 14. 3. Transport Hazard Classes

*ADR Class:*      8

*Hazard no.:*      8+6.1

*Classification code:*      CT2

*Tunnel restriction code:*      E

*IMDG Class (sea):*      8

*Hazard no.:*      8+6.1

*EmS No.:*      F-A, S-B

*IATA Class:*      8

*Hazard no.:*      8+6.1

## 14. 4. Packaging Group

*ADR/RID:*      II

*IMDG:*      II

*IATA:*      II

## 14. 5. Environmental Hazards

*Labelling according 5.2.1.8 ADR/RID: fish and tree*

*Labelling according 5.2.1.6.3 IMDG: fish and tree*

## 14. 6. Special Precautions for User

## 14. 7. Transportation in Bulk according to Annex II of MARPOL 73/78 and IBC-Code

## 14. 8. Further Information

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## 15. Regulatory Information

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

*Water hazard class:*

*3, very hazardous for water (German Regulation; Self-assessment)*

*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 not been carried out for this product.*

### 15. 3. Further Information

*Listed in the following inventories:*

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*EINECS (205-553-3), AICS (AUS), PICCS (PH), IECSC (CN),  
NZIoC (NZ), TCSI (TW)*

*Regulation (EC) 649/2012 concerning the export and import of  
dangerous chemicals: Not applicable*

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## 16. Other Information

*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.*