

Material Safety Data Sheet

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



10700 Orpiment, genuine

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Revised edition: 18.04.2016

Version: 1

Printed: 18.04.2016

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

1.1. Product Identifier

Product Name: Orpiment, genuine

Article No.: 10700

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

Identified uses:

*Pigment in artists colors.
Restoration purposes*

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.de

E-Mail: info@kremer-pigmente.de

Importer: --

1.4. Emergency No.

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

2. Hazards Identification

2.1. Classification of the Substance or Mixture

*Classification according to EC
Regulation 1272/2008*

*Acute toxicity (oral), hazard category 3
Acute toxicity (inhalation), hazard category 3
Hazardous to the aquatic environment, chronic category 1*

H301 Toxic if swallowed.

Cat.: 3

H331 Toxic if inhaled.

Cat.:

H410 Very toxic to aquatic life with long lasting effects.

Cat.: 1

*Classification according to EC
Regulation No. 67/548 or No. 1999/45*

R23 Toxic by inhalation.

R25 Toxic if swallowed.

Hazardous to the environment (N) R50 Very toxic to aquatic organisms.

R53 May cause long-term adverse effects in the aquatic environment.

Safety Phrases:

Possible Environmental Effects:

2.2. Label Elements

Classification according to EC

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Regulation 1272/2008

Hazard designation:



GHS06-2



GHS09

Signal word:

Danger

Hazard designation:

H301	Toxic if swallowed.
H331	Toxic if inhaled.
H410	Very toxic to aquatic life with long lasting effects.

Safety designation:

P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P302+P352	If on skin: Wash with soap and water.
P309+P311	If exposed or you feel unwell: Call a poison center or physician.
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: Arsenic pentasulfide, natural mineral, As₂S₃ - As₂S₅

Hazardous Ingredients:

Arsenic sulfide (T,N; R23/25-50/53; H301-331-410)

CAS-Nr: 1303-33-9

EINECS-Nr: 215-117-4

EC-Nr: 033-002-00-5

Additional information:

4. First Aid Measures

4.1. Description of the First Aid Measures

General information:

Take person away from hazardous area.
Wash affected body parts thoroughly with soap and water.
Remove contaminated clothes.

After inhalation:

Supply fresh air.
Keep respiratory tract clear.

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Get medical help.

After skin contact:

Wash off immediately with soap and plenty of water and rinse thoroughly.

Make sure that there is no product between clothing, skin, wrist, watch or shoes.

After eye contact:

Remove contact lens. Rinse open eyes with plenty of water (10-15 min). Consult physician.

After ingestion:

Drink plenty of water.

Induce vomiting as long as affected person is conscious.

Ensure that patient drinks a lot of water with medical charcoal or eats medical charcoal.

Consult a doctor.

Transport patient laying down.

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

Symptoms:

Eye contact: slight or retarded irritation.

Skin contact: Can cause allergic skin reactions. Resorptive effect possible.

Effects:

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

Treatment:

A risk of intoxication and local irritations must be expected after contamination with arsenic trioxide.

5. Fire-Fighting Measures

5.1. Extinguishing Media

Suitable extinguishing media:

CO₂, extinguishing powder, water jet.

Fight larger fire with water jet or alcohol resistant foam.

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 metal oxides, sulfur oxides.

5.3. Advice for Firefighters

Protective equipment:

Wear self-contained respiratory protective device and protective clothing.

Further information:

Collect contaminated extinguishing water and debris separately; avoid contamination of sewage system.

Cool exposed containers with water mist.

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6. Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions:

*Avoid contact with skin, eyes and clothing. Do not ingest or inhale.
Avoid formation of dust.
Wear appropriate protective equipment. Keep spectators away.*

6.2. Environmental Precautions

Environmental precautions:

*Keep spills and cleaning runoff out of municipal sewers and open bodies of water.
Prevent contamination of soils, drains and surface water.*

6.3. Methods and Material for Containment and Cleaning Up

Methods and material:

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

6.4. Reference to other Sections

Dispose of contaminated material according to Section 13.

7. Handling and Storage

7.1. Precautions for Safe Handling

Instructions on safe handling:

*The product should only be handled by professional personnel.
Wear adequate protective clothing (see para. 8).
Provide adequate ventilation.*

Hygienic measures:

*Do not eat or drink during work. Do not smoke.
Do not inhale dust. 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 cool room.

Requirements for storage areas and containers:

*Close open containers with care and store in an upright position to avoid spilling.
The containers should be durably labelled.
Fill only in labelled containers.*

Information on fire and explosion protection:

*Keep away from sources of ignition - do not smoke.
Do not store together with: strong oxidizing substances of storage class 5.1A.
Do not store together with: foodstuffs and animal feed.*

Storage class (VCI):

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6.1 A; Combustible toxic products

Further Information:

7.3. Specific End Use(s)

Further information:

8. Exposure Controls/Personal Protection

8.1. Parameters to be Controlled

Parameters to be controlled (DE):

none known

Parameters to be controlled:

Derived No-Effect Level (DNEL):

Predicted No-Effect Concentration (PNEC):

Additional Information:

8.2. Exposure Controls

Technical protective measures:

Adequate ventilation.

Personal Protection

General protective measures:

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

Do not inhale dust. Do not eat, drink or smoke while working. Wash hands before breaks and at the end of work.

Remove contaminated clothing immediately.

Provide separate lockers for normal and working clothes.

Respiratory protection:

Dust mask recommended when very dusty (with particle filter P2/P3; EN 143).

Hand protection:

Adequate protective gloves recommended.

Protective glove material:

Please note the manufacturers' detailed statements, especially about the minimum thickness and the minimum breakthrough time. Chloroprene rubber (CR), nitrile rubber (NBR), butyl rubber, fluoro carbon rubber (FKM), polyvinyl chloride (PVC).

Eye protection:

Safety glasses (EN 166)

Body protection:

Protective clothing.

Environmental precautions:

Prevent contamination of open water ways and sewage system. Avoid contamination of ground water.

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9. Physical and Chemical Properties

9.1. Information on Basic Physical and Chemical Properties

<i>Form:</i>	<i>powder</i>
<i>Color:</i>	<i>yellow</i>
<i>Odor:</i>	<i>odorless</i>
<i>Odor threshold:</i>	<i>No information available.</i>
<i>pH-Value:</i>	<i>not determined</i>
<i>Melting temperature:</i>	<i>300 - 325°C</i>
<i>Boiling temperature:</i>	<i>707°C</i>
<i>Flash point:</i>	<i>not available</i>
<i>Evaporation rate:</i>	<i>not applicable</i>
<i>Flammability (solid, gas):</i>	<i>Product is combustible, but not easily 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>3.46 g/cm³</i>
<i>Solubility in water:</i>	<i>insoluble</i>
<i>Coefficient of variation (n-Octanol/Water):</i>	<i>no information available</i>
<i>Auto-ignition temperature:</i>	<i>No information available.</i>
<i>Decomposition temperature:</i>	<i>not determined</i>
<i>Viscosity, dynamic:</i>	<i>not applicable</i>
<i>Explosive properties:</i>	<i>not applicable</i>
<i>Oxidizing properties:</i>	

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No information available.

Bulk density:

9.2. Further Information

Solubility in solvents:

Viscosity, kinematic

Burning class:

Solvent content:

Solid content:

Particle size:

Other information:

10. Stability and Reactivity

10.1. Reactivity

Can decompose at excessive heat.

10.2. Chemical Stability

Stable if used according to specifications.

10.3. Possibility of Hazardous Reactions

Risk of explosion with oxidizing agents, chlorates, potassium nitrate, nitric acid.

Reacts with water, heat, hydrogen peroxide, chlorine, chloric acid.

10.4. Conditions to Avoid

Conditions to avoid:

Avoid heat.

Thermal decomposition:

10.5. Incompatible Materials

Oxidation agents, chlorates, potassium nitrate, nitric acid.

Hydrogen peroxide, chloric acid, chlorine, water/heat.

10.6. Hazardous Decomposition Products

Sulphur dioxide, hydrogen sulfide gas, arsenic.

10.7. Further Information

11. Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity

LD50, oral: 185 mg/kg (rat)

LD50, dermal: 936 mg/kg (rat)

LC50, inhalation:

No information available.

Primary effects

Irritant effect on skin:

No irritant effect known.

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Irritant effect on eyes:

No irritant effect known.

Inhalation:

No irritant effect known.

Ingestion:

Toxic if swallowed.

Sensitization:

No sensitizing effects known.

Mutagenicity:

Can probably cause genetic defects.

Reproductive toxicity:

The chronic exposition to inorganic arsenic compounds can increase the frequency of spontaneous abortions and the rate of still births and malformations at birth.

Cancerogenity:

A cancerogenic effect has been proven in humans.

Teratogenicity:

No information available.

Specific target organ toxicity (STOT):

No data available.

Additional toxicological information:

12. Ecological Information

12.1. Aquatic Toxicity

Fish toxicity:

LC50: 82.3 mg/l (96h)

Daphnia toxicity:

No information available.

Bacteria toxicity:

No data available.

Algae toxicity:

No information available.

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

No data available.

12.6. Other Adverse Effects

Water hazard class:

3, hazardous

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Do not let run into surface waters, waste water or soil.

Behaviour in sewage systems:

Further ecological effects:

AOX Value:

13. Disposal Considerations

13.1. Waste Treatment Methods

Product:

Must be treated as toxic waste according to local laws and regulations.

European Waste Code (EWC):

Uncleaned packaging:

Dispose of according to official local regulations.

Waste Code No.:

14. Transport Information

14.1. UN Number

ADR, IMDG, IATA 1557

14.2. UN Proper Shipping Name

ADR/RID: ARSENVERBINDUNG, FEST, N.A.G. (Kupfer-Arsen-Carbonat), anorganisch

IMDG/IATA: ARSENIC COMPOUND, SOLID, N.O.S. (Copper Arsenic Carbonate), inorganic

14.3. Transport Hazard Classes

ADR Class: 6.1

Hazard no.: 6.1

Classification code: T5

Tunnel no.: E

IMDG Class (sea): 6.1

Hazard no.: 6.1

EmS No.: F-A, S-A

IATA Class: 6.1

Hazard no.: 6.1

14.4. Packaging Group

ADR/RID: III

IMDG: III

IATA: III

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

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Labelled with "P" according 2.10 IMDG: no

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

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

Local regulations on chemical accidents:

Seveso III:

Appendix 1, part 2, no. 8

Employment restrictions:

The employment restrictions for young workers in accordance with the Youth Employment Protection Law (94/33/EC) are to be observed.

The employment restrictions for expectant and nursing mothers in accordance with the Maternity Protection Guideline (94/85/EEC) are to be observed.

Restriction and prohibition of application:

EC. REACH, Section XVII, Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles, Registered no. 19 (Arsenic compounds)

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

Restricted to professional users (TRGS 200, no. 6.9)

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.