

# Safety Data Sheet

## Orpiment

Product Code: PS-IN0019

Department: rare & historical dry pigments

C.A.S.: 1303-33-9



**KAMA**  
PIGMENTS

### Section: 1 Identification

|                       |   |
|-----------------------|---|
| Chemical Name         | Arsenic sesquisulfide; Arsenic trisulfide.                            |
| Colour Index.         | C.I., Pigment Yellow 39   |
| Synonym:              | Realgar   |
| recommended uses:     | Laboratory chemicals, Pigment in artists colors, Restoration purposes |
| Uses advised against: | Food, drug, pesticide or biocidal product use                         |

### Section: 2 Hazard Identification

#### HGS Label Elements



## Signal Word

Danger

## GHS Classification

Acute oral toxicity Category 3

Acute Inhalation Toxicity - Dusts and Mists Category 3

Carcinogenicity Category 1A

Hazardous to the aquatic environment, chronic category 1

## Hazard Statements

H301 Toxic if swallowed

H331 Toxic if inhaled

H350 May cause cancer

H410 Very toxic to aquatic life with long lasting effects.

## Precautionary Statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

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.

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## Section: 3 Composition / Information on Ingredients

| Component          | CAS-No    | Weight % |
|--------------------|-----------|----------|
| Arsenic trisulfide | 1303-33-9 | 99.99    |

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## Section: 4 First-Aid Measures

|                           |  |
|---------------------------|--|
| General Advice:           | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.  |
| Eye Contact:              | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.  |
| Skin Contact:             | Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.  |
| Inhalation:               | Move to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. |
| Ingestion:                | Do not induce vomiting. Call a physician or Poison Control Center immediately.   |
| Most important symptoms : | None reasonably foreseeable  |
| Notes to Physician:       | Treat symptomatically  |

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## Section: 5 Fire-Fighting Measures

|   |  |
|---|--|
| Suitable extinguishing media:                   | Use an extinguishing agent suitable for the surrounding fire. In case of fire, use water spray (fog), foam or dry chemical.  |
| Incompatible Extinguishing Media:               | None known.  |
| Specific hazards for the product:               | No specific risk of fire or explosion.   |
| Hazardous thermal decomposition products:       | No specific data.  |
| Special protective measures for fire-fighters:  | Not applicable.  |
| Special protective equipment for Fire Fighters: | Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

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## Section: 6 Accidental Release Measures

Personal precautions, protective equipment  
And emergency measures:

No action shall be taken involving any personal risk or without suitable training. Evacuate the surroundings. Preventing access to unwanted or unprotected persons. Do not touch or walk through spilled material. Avoid breathing dust. Wear appropriate personal protective equipment.

Environmental precautions:

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and  
Cleaning:

Move containers away from spill area. Approach the emanations in the same direction as the wind. Collect spillage with a vacuum cleaner or brush and place in a properly identified waste container. Avoid creating a cloud of dust and preventing wind dispersal. Dispose of through an authorized specialist company. Note: See Section 1 for emergency information and see Section 13 for waste disposal. Prevent entry into sewers, watercourses, basements or confined areas.

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## Section: 7 Handling And Storage

Handling:

Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Avoid dust formation. Use only under a chemical fume hood. Do not breathe vapors/dust. Do not ingest.

Storage:

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep locked-up.

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## Section: 8 Exposure Control/Personal Protection

Component  
Arsenic trisulfide

ACGIH TLV  
TWA: 0.01 mg/m<sup>3</sup>

NIOSH IDLH  
IDLH: 5 mg/m<sup>3</sup>  
Ceiling: 0.002 mg/m<sup>3</sup>

Legend

ACGIH:

American Conference of Governmental Industrial Hygienists

NIOSH IDLH:

The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures:

Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection:

Long sleeved clothing.

Respiratory Protection:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures:

Handle in accordance with good industrial hygiene and safety practice.

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## Section: 9 Physical and Chemical Properties

|   |                                |
|---|--------------------------------|
| Physical State:                         | Powder Solid                   |
| Appearance:                             | Yellow-orange                  |
| Odor:                                   | Odorless                       |
| Odor Threshold:                         | No information available       |
| pH:                                     | Not applicable                 |
| Melting Point/Range:                    | 300 °C / 572 °F                |
| Boiling Point/Range:                    | 707 °C / 1304.6 °F @ 760 mmHg  |
| Flash Point:                            | No information available       |
| Evaporation Rate:                       | Not applicable                 |
| Flammability (solid,gas):               | No information available       |
| Flammability or explosive limits        |                                |
| Upper:                                  | No data available              |
| Lower:                                  | No data available              |
| Vapor Pressure:                         | No information available       |
| Vapor Density:                          | Not applicable                 |
| Density:                                | 3.43 g/cm <sup>3</sup>         |
| Solubility:                             | insoluble                      |
| Partition coefficient; n-octanol/water: | No data available              |
| Autoignition Temperature:               | Not applicable                 |
| Decomposition Temperature:              | No information available       |
| Viscosity:                              | Not applicable                 |
| Molecular Formula:                      | As <sub>2</sub> S <sub>3</sub> |
| Molecular Weight:                       | 246.02 g /mol                  |

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## Section: 10 Stability And Reactivity

|                                     |  |
|-------------------------------------|--|
| Reactivity:                         | Can decompose at excessive heat.   |
| Chemical Stability:                 | Stable if used according to specifications.  |
| Possibility of Hazardous Reactions: | Risk of explosion with oxidizing agents, chlorates, potassium nitrate, nitric acid.<br>Reacts with water, heat, hydrogen peroxide, chlorine, chloric acid. |
| Conditions to avoid:                | Avoid heat. Thermal decomposition  |
| Incompatible Materials:             | Oxidation agents, chlorates, potassium nitrate, nitric acid. Hydrogen peroxide, chloric acid, chlorine, water/heat.  |
| Hazardous Decomposition Products:   | Sulphur dioxide, hydrogen sulfide gas, arsenic.  |

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## Section: 11 Toxicological Information

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.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component          | CAS-No    | IARC    | NTP   | ACGIH | OSHA |
|--------------------|-----------|---------|-------|-------|------|
| Arsenic trisulfide | 1303-33-9 | Group 1 | Known | A1    | X    |

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans  
Group 2A - Probably Carcinogenic to Humans  
Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen  
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen  
A2 - Suspected Human Carcinogen  
A3 - Animal Carcinogen

Mutagenic Effects: No information available  
Reproductive Effects: No information available.  
Developmental Effects: No information available.  
Teratogenicity: No information available.  
STOT: single exposure None known  
STOT: repeated exposure None known  
Aspiration hazard: No information available  
Symptoms / effects, both acute and delayed: No information available  
Endocrine Disruptor Information: No information available  
Other Adverse Effects: The toxicological properties have not been fully investigated.

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## Section: 12 Ecological Information

Persistence and Degradability: Insoluble in water May persist  
Bioaccumulation/ Accumulation: No information available.  
Mobility: Is not likely mobile in the environment due its low water solubility.

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## Section: 13 Disposal Considerations

Waste Disposal Methods: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

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## Section: 14 Transport Information

|                       |                                  |
|-----------------------|----------------------------------|
| DOT                   |                                  |
| UN-No                 | UN1557                           |
| Proper Shipping Name  | ARSENIC COMPOUNDS, SOLID, N.O.S. |
| Proper technical name | Arsenic trisulfide               |
| Hazard Class          | 6.1                              |
| Packing Group         | III                              |
| TDG                   |                                  |
| UN-No                 | UN1557                           |
| Proper Shipping Name  | ARSENIC COMPOUNDS, SOLID, N.O.S. |
| Hazard Class          | 6.1                              |
| Packing Group         | III                              |
| IATA                  |                                  |
| UN-No                 | UN1557                           |
| Proper Shipping Name  | ARSENIC COMPOUNDS, SOLID, N.O.S. |
| Hazard Class          | 6.1                              |
| Packing Group         | III                              |
| IMDG/IMO              |                                  |
| UN-No                 | UN1557                           |
| Proper Shipping Name  | ARSENIC COMPOUNDS, SOLID, N.O.S. |
| Hazard Class          | 6.1                              |
| Packing Group         | III                              |

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## Section: 15 Regulatory Information

All of the components in the product are on the following Inventory lists: X = listed U.S.A. (TSCA) Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) Australia (AICS) Korea (ECL) China (IECSC) Japan (ENCS) Philippines (PICCS)

### International Inventories

| Component          | TSCA   | DSL    | NDSL | EINECS    | ELINCS | NLP | PICCS  | ENCS   | AICS | IECSC | KECL     |
|--------------------|--------|--------|------|-----------|--------|-----|--------|--------|------|-------|----------|
| Arsenic trisulfide | Listed | Listed | -    | 215-117-4 | -      | -   | Listed | Listed | -    | -     | KE-01940 |

Further Information: Restricted to professional users.

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## Section: 16 Other Information

|             |  |
|-------------|--|
| Reference   | Manufacturer's material safety data sheet. |
| Prepared by | Kama pigments                              |

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