

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Mercuric Sulfide
CAS number	1344-48-5
Synonyms	Almaden. C.I. Pigment Red. Chinese Vermilion. Cinnabar. Ethiops mineral. Mercuric Sulfide Red. Mercuric sulfide Black. Mercury monosulfide. Mercury sulphide. Monomercury sulfide. Orange vermilion. Pigment Red 106. Red cinnabar. Scarlet vermilion. Beta-Mercuric sulfide.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses For manufacturing or laboratory use only.

1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity - Dermal (Category 1)
Acute toxicity - Oral (Category 4)
Acute Inhalation Toxicity - Dusts and Mists
Specific Target Organ Toxicity - repeated exposure (Category 2)
Target Organs - Central Nervous System, Kidney

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

May cause damage to organs through prolonged or repeated exposure
Fatal if swallowed, in contact with skin or if inhaled

Precautionary statements

Prevention Do not get in eyes, on skin, or on clothing

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

Do not breathe dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

Wear respiratory protection

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Response Get medical attention/advice if you feel unwell

Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Immediately call a POISON CENTER or doctor/physician

Skin Remove/take off immediately all contaminated clothing

Wash contaminated clothing before reuse

Immediately call a POISON CENTER or doctor/physician

IF ON SKIN: Gently wash with plenty of soap and water

Ingestion IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Rinse mouth

Storage Store in a well-ventilated place. Keep container tightly closed

Store locked up

Disposal Dispose of contents/container to an approved waste disposal plant

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Very toxic to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Mercury sulfide	Cinnabar, Vermilion, Mercury monosulfide, etc.	1344-48-5	>99%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Remove 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.
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
In case of eye contact	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If swallowed	Do NOT induce vomiting. Call a physician or poisoncontrol center immediately.

4.2 Most important symptoms and effects, both acute and delayed

None reasonably foreseeable

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media No information available

Unsuitable extinguishing media No information available

5.2 Specific hazards arising from the substance or mixture

Do not allow run-off from fire-fighting to enter drains or water courses.

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

5.4 Further information

Flash Point No information available

Autoignition Temperature No information available

Explosion limits

Upper No information available

Lower No information available

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge

No information available

NFPA

Health	Flammability	Instability	Physical hazards
4	0	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

Hygiene measures

Handle in accordance with good industrial hygiene.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatibilities

Strong oxidizing agents, Acids, Halogens, Metal oxides

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Mercuric sulfide	Ceiling	0.1 mg/m ³

US. ACGIH Threshold Limit Values

Component	Type	Value
Mercuric sulfide	TWA	0.025 mg/m ³ (Skin)

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Mercuric sulfide	IDLH	10 mg/m ³
	TWA	0.05 mg/m ³
	Ceiling	0.1 mg/m ³

8.2 Exposure controls

Appropriate engineering controls

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 19 CFR 1910.133 or European Standard EN166.

Skin protection

Wear appropriate protective gloves and clothing to prevent skin exposure

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.

Control of environmental exposure

No information available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Powder solid
Appearance	Red
Odor	Odorless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	583.5 °C
Boiling Point/Range	No information available

Evaporation Rate	No information available
Flammability (solid)	Not applicable
Flammability or explosive limit	
Upper	No information available
Lower	No information available
Vapor Pressure	No information available
Vapor Density	Not applicable
Density	8.1
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	Not applicable
Decomposition Temp	No information available
Viscosity	Not applicable
Molecular Formula	HgS
Molecular Weight	232.65
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information

No information available

SECTION 10: Stability and reactivity

10.1 Reactivity

None known, based on information available

10.2 Chemical stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

None under normal processing

10.4 Conditions to avoid

Incompatible products

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

None under normal use conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

No information available

Skin corrosion/irritation

No information available

Serious eye damage/eye irritation

No information available

Respiratory or skin sensitization

No information available

Germ cell mutagenicity

No information available

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
		Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

None known

Specific target organ toxicity - repeated exposure

Central nervous system, Kidney

Reproductive toxicity

California Prop 65. Reproductive toxicity

Chronic effects

No information available

11.2 Additional Information

No information available

SECTION 12: Ecological information

12.1 Toxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2 Persistence and degradability

No information available

12.3 Bio accumulative potential

No information available

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available

12.6 Endocrine disrupting properties

No information available

12.7 Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1 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.

SECTION 14: Transport information

DOT (US)

UN-no.	UN2025
Proper Shipping Name	MERCURY COMPOUNDS, SOLID, N.O.S.
Hazard Class	6.1
Packing Group	II

IMDG

UN-no.	UN2025
Proper Shipping Name	MERCURY COMPOUNDS, SOLID, N.O.S.
Hazard Class	6.1
Packing Group	II

IATA

UN-no.	UN2025
Proper Shipping Name	MERCURY COMPOUNDS, SOLID, N.O.S.
Hazard Class	6.1
Packing Group	II

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not applicable

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed

SARA 304 Emergency release notification

Not listed

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

See section 2 for full list of hazard statements

SARA 313 (TRI reporting)

Not regulated

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Listed

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Listed

US state regulations

US. Massachusetts RTK - Substance List

Not listed

US. New Jersey Worker and Community Right-to-Know Act

Listed

US. Pennsylvania Worker and Community Right-to-Know Law

Listed

California Proposition 65

Listed - Developmental

SECTION 16: Other information

Issue date: 07/28/2021

Revision 1: 07/15/2024

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.