

## SAFETY DATA SHEET

Preparation Date: 11/2/2016

Revision Date: Not Applicable

Revision Number: Not Applicable

### 1. IDENTIFICATION

**Product identifier**

**Product code:** M1190  
**Product Name:** MERCURIC SULFIDE, RED POWDER, REAGENT

**Other means of identification**

**Synonyms:** Almaden  
 C.I. 77766  
 C.I. Pigment Red 106  
 Chinese vermilion  
 Cinnabar  
 Ethiops mineral  
 Mercuric Sulfide Red  
 Mercuric Sulfide, Black  
 Mercuric sulfide  
 Mercury monosulfide  
 Mercury sulphide  
 Mercury(2+) sulfide  
 Monomercury sulfide  
 Orange vermilion  
 Pigment Red 106  
 Red cinnabar  
 Red mercury sulphide  
 Scarlet vermilion  
 Vermilion  
 beta-Mercuric sulfide

**CAS #:** 1344-48-5  
**RTECS #** OX0720000  
**CI#:** Not available

**Recommended use of the chemical and restrictions on use**

**Recommended use:** For manufacturing or laboratory use only.  
**Uses advised against** Not for food or drug use.

**Supplier:** Spectrum Chemical Mfg. Corp  
 14422 South San Pedro St.  
 Gardena, CA 90248  
 (310) 516-8000.

**Order Online At:** <https://www.spectrumchemical.com>

**Emergency telephone number** Chemtrec 1-800-424-9300

**Contact Person:** Martin LaBenz (West Coast)

**Contact Person:** Ibad Tirmiz (East Coast)

### 2. HAZARDS IDENTIFICATION

**Classification**

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 4
Skin sensitization	Category 1

#### Label elements

**Danger**

**Hazard statements**  
Harmful if swallowed  
May cause an allergic skin reaction



#### Hazards not otherwise classified (HNOC)

Not Applicable

#### Other hazards

Not available

#### **Precautionary Statements - Prevention**

Do not eat, drink or smoke when using this product  
Wear protective gloves  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Wash face, hands and any exposed skin thoroughly after handling  
Contaminated work clothing must not be allowed out of the workplace

#### **Precautionary Statements - Response**

IF ON SKIN: Wash with plenty of water  
If skin irritation or rash occurs: Get medical advice/attention  
Wash contaminated clothing before reuse  
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
Rinse mouth

#### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Mercuric Sulfide	1344-48-5	100

### 4. FIRST AID MEASURES

Product code: M1190

Product name: MERCURIC SULFIDE,  
RED POWDER, REAGENT

2 / 11

### First aid measures

<b>General Advice:</b>	National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.
<b>Skin Contact:</b>	Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.
<b>Eye Contact:</b>	Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.
<b>Inhalation:</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion:</b>	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	May cause eye/skin irritation. May cause an allergic skin reaction. May cause sensitization by skin contact. May cause irritation of respiratory tract. Harmful if swallowed.
-----------------	---

### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician:</b>	Treat symptomatically.
----------------------------	------------------------

### Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

## 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

<b>Suitable Extinguishing Media:</b>	Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray, mist, or foam.
--------------------------------------	--

<b>Unsuitable Extinguishing Media:</b>	No information available.
--	---------------------------

### Specific hazards arising from the chemical

<b>Hazardous Combustion Products:</b>	Mercury oxides. Sulfur Oxides.
---------------------------------------	--------------------------------

<b>Specific hazards:</b>	May be combustible at high temperatures
--------------------------	---

### Special Protective Actions for Firefighters

<b>Specific Methods:</b>	No information available.
--------------------------	---------------------------

<b>Special Protective Equipment for Firefighters:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
---	---

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions:** Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid breathing dust. Avoid dust formation. Remove all sources of ignition.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

### Methods and material for containment and cleaning up

**Methods for containment** Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up** Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Ensure adequate ventilation. Avoid dust formation. Keep away from incompatible materials.

#### **Safe Handling Advice**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not breathe dust. Do not ingest. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

#### **Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Sensitive to light. Store in light-resistant containers. Protect from light. Store in a segregated and approved area. Store away from incompatible materials. Store at controlled room temperature.

#### **Incompatible Materials:**

Strong oxidizing agents  
Acids  
Halogens  
metal oxides

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### **National occupational exposure limits**

##### **United States**

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WHEEL
Mercuric Sulfide	1344-48-5	None	None	None	None

##### **Canada**

Components	CAS-No.	Canada - Alberta	Canada - British	Canada - Ontario	Canada - Quebec
------------	---------	------------------	------------------	------------------	-----------------

			<b>Columbia</b>		
Mercuric Sulfide	1344-48-5	None	None	None	None

### Australia and Mexico

Components	CAS-No.	<b>Australia</b>	<b>Mexico</b>
Mercuric Sulfide	1344-48-5	None	None

### Appropriate engineering controls

#### Engineering measures to reduce exposure:

Ensure adequate ventilation, especially in confined areas. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Individual protection measures, such as personal protective equipment

#### Personal Protective Equipment

##### Eye protection:

Goggles or Safety glasses with side-shields

##### Skin and body protection:

Gloves. Long sleeved clothing. Chemical resistant apron.

##### Respiratory protection:

Effective dust mask. or. Wear respirator with dust filter. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

##### Hygiene measures:

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Physical state:

Solid

#### Appearance:

Powder.

#### Color:

Red.

#### Odor:

Odorless.

#### Taste

No information available.

#### Formula:

HgS

#### Molecular/Formula weight:

232.65

#### Flammability:

No information available

#### Flashpoint (°C/°F):

No information available.

#### Flash Point Tested according to:

Not available

#### Autoignition Temperature (°C/°F):

No information available

#### Lower Explosion Limit (%):

No information available

#### Upper Explosion Limit (%):

No information available

#### Melting point/range(°C/°F):

583.5°C (1082.3°F)

#### Decomposition temperature(°C/°F):

No information available

#### Boiling point/range(°C/°F):

No information available

#### Bulk density:

1.07

#### Density (g/cm3):

8.1

#### Specific gravity:

No information available

#### pH:

No information available

#### Vapor pressure @ 20°C (kPa):

No information available

**Product code:** M1190

**Product name:** MERCURIC SULFIDE,  
RED POWDER, REAGENT

5 / 11

**Evaporation rate:**  
No information available

**Vapor density:**  
No information available

**VOC content (g/L):**  
No information available

**Odor threshold (ppm):**  
No information available

**Partition coefficient  
(n-octanol/water):**  
No information available

**Viscosity:**  
No information available

**Miscibility:**  
No information available

**Solubility:**  
Insoluble in water

## 10. STABILITY AND REACTIVITY

### Reactivity

Reactive with oxidizing agents

### Chemical stability

**Stability:** Sensitive to light. Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Avoid dust formation. Exposure to light. Incompatible materials.

**Incompatible Materials:** Strong oxidizing agents  
Acids  
Halogens  
metal oxides

**Hazardous decomposition products:** Mercury/mercury oxides. Sulfur oxides.

### Other Information

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

**Principal Routes of Exposure:**  
Skin. Ingestion. Inhalation.

### Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document  
**Component Information**

Mercuric Sulfide

CAS-No. 1344-48-5

**LD50/oral/rat** = No information available  
**LD50/oral/mouse** = No information available  
**LD50/dermal/rabbit** = No information available  
**LD50/dermal/rat** = No information available  
**LC50/inhalation/rat** = No information available  
**LC50/inhalation/mouse** = No information available  
**Other LD50 or LC50 information** = No information available

## Product Information

**LD50/oral/rat =**

**VALUE- Acute Tox Oral =** No information available

**LD50/oral/mouse =**

**Value - Acute Tox Oral =** No information available

**LD50/dermal/rabbit**

**VALUE-Acute Tox Dermal =** No information available

**LD50/dermal/rat**

**VALUE -Acute Tox Dermal =** No information available

**LC50/inhalation/rat**

**VALUE-Vapor =** No information available

**VALUE-Gas =** No information available

**VALUE-Dust/Mist =** No information available

**LC50/Inhalation/mouse**

**VALUE-Vapor =** No information available

**VALUE - Gas =** No information available

**VALUE - Dust/Mist =** No information available

## Symptoms

**Skin Contact:** May cause skin irritation. May cause sensitization by skin contact. May cause allergic skin reaction.

**Eye Contact:** May cause eye irritation.

**Inhalation** May cause irritation of respiratory tract.

**Ingestion** Harmful if swallowed. May cause digestive (gastrointestinal) tract irritation.

**Aspiration hazard** No information available.

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Chronic Toxicity** No information available.

**Sensitization:** May cause sensitization by skin contact.

**Mutagenic Effects:** No information available

**Carcinogenic effects:** Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Mercuric Sulfide	1344-48-5	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)*

*IARC (International Agency for Research on Cancer)*

*NTP (National Toxicology Program)*

*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*

**Product code:** M1190

**Product name:** MERCURIC SULFIDE,  
RED POWDER, REAGENT

**7 / 11**

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available  
**Developmental Effects:** No information available  
**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Target Organs:** No information available.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:** No data available.

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available.

**Mobility:** No information available.

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

**Waste from residues / unused products:**  
 Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**  
 Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Mercuric Sulfide	1344-48-5	None	None	None	None

**14. TRANSPORT INFORMATION**

**DOT**

**UN-No:** UN2025  
**Proper Shipping Name:** Mercury compounds, solid, n.o.s. (mercuric sulfide)  
**Hazard Class:** 6.1  
**Subsidiary Class** No information available  
**Packing group:** II  
**Emergency Response Guide Number** 151  
**Marine Pollutant** No data available  
**DOT RQ (lbs):** No information available  
**Special Provisions** IB8, IP2, IP4, T3, TP33  
**Symbol(s):** No information available  
**Description:** UN2025, Mercury compounds, solid, n.o.s. (Mercuric Sulfide), 6.1, II



<b>TDG (Canada)</b>	
<b>UN-No:</b>	UN2025
<b>Proper Shipping Name:</b>	Mercury compound, solid, n.o.s.
<b>Hazard Class:</b>	6.1
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	II
<b>Marine Pollutant Description:</b>	No Information available UN2025, Mercury compound, solid, n.o.s., 6.1, II
<b>ADR</b>	
<b>UN-No:</b>	UN2025
<b>Proper Shipping Name:</b>	Mercury compound, solid, n.o.s.
<b>Hazard Class:</b>	6.1
<b>Packing Group:</b>	II
<b>Subsidiary Risk:</b>	No information available
<b>Special Provisions Description:</b>	43, 274, 529, 585, 66 UN2025, Mercury compound, solid, n.o.s. (Mercuric Sulfide), 6.1, II
<b>IMO / IMDG</b>	
<b>UN-No:</b>	UN2025
<b>Proper Shipping Name:</b>	Mercury compounds, solid, n.o.s. (mercuric sulfide)
<b>Hazard Class:</b>	6.1
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	II
<b>Marine Pollutant Description:</b>	No information available
<b>EMS:</b>	F-A
<b>Special Provisions Description:</b>	274, 43, 66 UN2025, Mercury compound, solid, n.o.s. (Mercuric Sulfide), 6.1, II
<b>RID</b>	
<b>UN-No:</b>	UN2025
<b>Proper Shipping Name:</b>	Mercury compound, solid, n.o.s.
<b>Hazard Class:</b>	6.1
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	II
<b>Special Provisions Description:</b>	43, 274, 529, 585, 66 UN2025, Mercury compound, solid, n.o.s. (Mercuric Sulfide), 6.1, II
<b>ICAO</b>	
<b>UN-No:</b>	UN2025
<b>Proper Shipping Name:</b>	Mercury compound, solid, n.o.s.
<b>Hazard Class:</b>	6.1
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	II
<b>Description:</b>	UN2025, Mercury compound, solid, n.o.s. (Mercuric Sulfide), 6.1, II
<b>Special Provisions</b>	A3, A5, A6, A18
<b>IATA</b>	
<b>UN-No:</b>	UN2025
<b>Proper Shipping Name:</b>	Mercury compound, solid, n.o.s.
<b>Hazard Class:</b>	6.1
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	II
<b>ERG Code:</b>	6L
<b>Special Provisions Description:</b>	No information available UN2025, Mercury compound, solid, n.o.s. (Mercuric Sulfide), 6.1, II

<b>15. REGULATORY INFORMATION</b>
-----------------------------------

## International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Mercuric Sulfide	1344-48-5	Present	Present KE-23133	Present	Present (1)-438	Present	Present	Present 215-696-3

## U.S. Regulations

### California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

#### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

#### Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Mercuric Sulfide	1344-48-5	Not Listed	Not Listed	Not Listed	Not Listed

## CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Mercuric Sulfide	1344-48-5	None	None	None	None	None

## U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) - Health and Safety Reporting
Mercuric Sulfide	1344-48-5	Not Applicable	Not Applicable

## Canada

#### WHMIS hazard class:

D1B Toxic materials

D2B Toxic materials

#### Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

## Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Mercuric Sulfide	1344-48-5	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Mercuric Sulfide	1344-48-5	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Mercuric Sulfide	1344-48-5	Not listed

**EU Classification****R-phrase(s)**

R22 - Harmful if swallowed.

R43 - May cause sensitization by skin contact.

**S -phrase(s)**

S24 - Avoid contact with skin.

S37 - Wear suitable gloves.

S46 - If swallowed, seek medical advice immediately and show this container or label.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Mercuric Sulfide	1344-48-5		No information	

**The product is classified in accordance with Annex VI to Directive 67/548/EEC****Indication of danger:**

Xn - Harmful.

Xn

**16. OTHER INFORMATION**

**Preparation Date:** 11/2/2016  
**Revision Date:** Not Applicable  
**Prepared by:** Roumann Pangilinan

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**