

# SAFETY DATA SHEET

Date Printed: 05/05/2024

Date Revised: 01/15/2022

## SECTION 1. IDENTIFICATION

**Product Identifier:** Thallium Malonate

**Product Code:** TL-MLT-01

**CAS Number:** 2757-18-8

**Relevant identified uses of the substance:** Scientific research and development

Supplier details:

American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351  
Emergency telephone number:  
+1 800-424-9300

## SECTION 2. HAZARDS IDENTIFICATION

Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity

Category 2

Acute dermal toxicity

Category 2

Acute Inhalation Toxicity - Dusts and Mists

Category 2

Specific target organ toxicity - (repeated exposure)

Category 2

Target Organs -

Liver, kidney, and respiratory system, Central nervous system (CNS), Cardiovascular system.

Label Elements



Signal Word

Danger

Hazard Statements

Fatal if swallowed

Fatal in contact with skin

Fatal if inhaled

May cause damage to organs through prolonged or repeated exposure

Precautionary Statements

Prevention

Use only outdoors or in a well-ventilated area

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

In case of inadequate ventilation wear respiratory protection

Do not eat, drink or smoke when using this product

Avoid breathing dust/fume/gas/mist/vapors/spray

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

Wash face, hands and any exposed skin thoroughly after handling

Response

IF exposed or concerned: Get medical attention/advice

Inhalation

Immediately call a POISON CENTER or doctor/physician

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

Skin

Immediately call a POISON CENTER or doctor/physician

Take off contaminated clothing and wash before reuse

IF ON SKIN: Wash with plenty of soap and water

Ingestion

Rinse mouth

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

Storage

Store locked up

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

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Toxic to aquatic life with long lasting effects

Other hazards

May cause eye, skin, and respiratory tract irritation. May cause pulmonary edema.

NFPA :

Health

4

Flammability

0

Instability

0

Physical hazards

N/A

---

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product name: Thallium(I) malonate

CAS number: 2757-18-8

EC-No.: 231-138-1

Molecular formula: CH<sub>2</sub>(COOTl)<sub>2</sub>

---

## **SECTION 4. FIRST AID MEASURES**

### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Obtain medical attention.

### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

### Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

### Ingestion

Do not induce vomiting. Call a physician or Poison Control Center immediately.

### Most important symptoms/effects

No data available.

### Notes to Physician

Treat symptomatically

---

## **SECTION 5. FIREFIGHTING MEASURES**

### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Unsuitable Extinguishing Media

No data available

### Flash Point

No data available

### Method -

No data available

### Autoignition Temperature

No data available

### Explosion Limits

Upper: No data available

Lower: No data available

### Sensitivity to Mechanical Impact

No data available

### Sensitivity to Static Discharge

No data available

### Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

### Hazardous Combustion Products

Carbon monoxide (CO) Carbon dioxide (CO<sub>2</sub>) Fumes

### 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

---

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

### Personal Precautions

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

Avoid contact with skin, eyes and clothing.

#### Environmental Precautions

See Section 12 for additional ecological information.

#### Methods for Containment and Clean Up

Sweep up or vacuum up spillage and collect in suitable container for disposal.

---

## SECTION 7. HANDLING AND STORAGE

#### Handling

Ensure adequate ventilation. Wear personal protective equipment. Avoid dust formation.

Avoid contact with skin, eyes and clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not ingest. Remove and wash contaminated clothing before re-use.

#### Storage

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

---

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Component: Thallous malonate

ACGIH TLV: TWA: 0.02 mg/m<sup>3</sup> Skin

OSHA PEL: Skin

NIOSH IDLH:

IDLH: 15 mg/m<sup>3</sup>

TWA: 0.1 mg/m<sup>3</sup>

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

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. Ensure that eyewash stations and safety showers are close to the workstation location.

#### 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

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.

##### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

---

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid

Appearance: White

Odor: No data available

Odor Threshold: No data available

pH: No data available

Melting Point/Range: No data available

Boiling Point/Range: No data available  
Flash Point: No data available  
Evaporation Rate: No data available  
Flammability (solid,gas): No data available  
Flammability or explosive limits  
Upper: No data available  
Lower: No data available  
Vapor Pressure: No data available  
Vapor Density: No data available  
Relative Density: No data available  
Solubility: No data available  
Partition coefficient; n-octanol/water: No data available  
Autoignition Temperature: No data available  
Decomposition Temperature: No data available  
Viscosity: No data available  
Molecular Formula: C3 H2 O4 Ti2  
Molecular Weight: 510.8

---

## **SECTION 10. STABILITY AND REACTIVITY**

Reactive Hazard  
None known, based on information available  
Stability  
Stable under normal conditions.  
Conditions to Avoid  
Incompatible products. Excess heat. Avoid dust formation.  
Incompatible Materials  
Strong oxidizing agents  
Hazardous Decomposition Products  
Carbon monoxide (CO), Carbon dioxide (CO2), Fumes  
Hazardous Polymerization  
Hazardous polymerization does not occur.  
Hazardous Reactions  
None under normal processing.

---

## **SECTION 11. TOXICOLOGICAL INFORMATION**

Acute Toxicity  
Product Information: No acute toxicity information is available for this product  
Toxicologically Synergistic Products: No data available  
Delayed and immediate effects as well as chronic effects from short and long-term exposure  
Irritation: May cause eye, skin, and respiratory tract irritation  
Sensitization: No data available  
Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen  
Mutagenic Effects: No data available  
Reproductive Effects: No data available.  
Developmental Effects: No data available.  
Teratogenicity: No data available.  
STOT - single exposure: None known  
STOT - repeated exposure

Liver, kidney, and respiratory system Central nervous system (CNS) Cardiovascular system

Aspiration hazard: No data available

Symptoms / effects, both acute and delayed: No data available

Endocrine Disruptor Information: No data available

Other Adverse Effects

May cause conjunctivitis. Prolonged and/or repeated contact may cause irritation and/or dermatitis. Absorption into the body may cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood). May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause liver and kidney damage. May cause hemorrhaging of the digestive tract. May cause alopecia (loss of hair). May cause cardiopulmonary system effects. Human fatalities have been reported from acute poisoning. Ingested thallium compounds are extremely toxic, causing convulsions, coma, conjunctivitis, runny nose, polyneuritis, motor and sensory peripheral neuropathy, encephalopathy, arterial hypertension, rapid heart rate, and skin eruptions. May cause dyspnea (difficult or labored breathing). May cause corneal irritation, dyspnea (labored breathing), bronchospasm, chest pain, and pulmonary edema, which may be fatal. The toxicological properties have not been fully investigated

---

## SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not empty into drains. Do not flush into surface water or sanitary sewer system.

Persistence and Degradability: No data available

Bioaccumulation/ Accumulation: No data available.

Mobility: No data available.

---

## 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.

---

## SECTION 14. TRANSPORT INFORMATION

DOT

UN-No: UN1707

Proper Shipping Name: THALLIUM COMPOUND, N.O.S.

Proper technical name: (THALLOUS MALONATE)

Hazard Class: 6.1

Packing Group: III

TDG

UN-No: UN1707

Proper Shipping Name: THALLIUM COMPOUND, N.O.S.

Hazard Class: 6.1

Packing Group: III

IATA

UN-No: 1707

Proper Shipping Name: THALLIUM COMPOUND, N.O.S.

Hazard Class: 6.1  
Packing Group: II  
IMDG/IMO  
UN-No: 1707  
Proper Shipping Name: THALLIUM COMPOUND, N.O.S.  
Hazard Class: 6.1  
Packing Group: II

---

## SECTION 15. REGULATORY INFORMATION

### TSCA

CAS# 2757-18-8 is listed on the TSCA inventory.

### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

### Section 12b

None of the chemicals are listed under TSCA Section 12b.

### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

### SARA Section 302 Extremely Hazardous Substances

CAS# 2757-18-8: 100 lb TPQ (lower threshold); 10000 lb TPQ (upper threshold)

### SARA Codes

CAS # 2757-18-8: immediate, delayed.

Section 313 No chemicals are reportable under Section 313.

### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

### STATE

CAS# 2757-18-8 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

### European Labeling in Accordance with EC Directives

### Hazard Symbols:

T+

### Risk Phrases:

R 26/28 Very toxic by inhalation and if swallowed.

R 33 Danger of cumulative effects.

### Safety Phrases:

S 13 Keep away from food, drink and animal feeding stuffs.  
S 37 Wear suitable gloves.  
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S 28A After contact with skin, wash immediately with plenty of water  
.

WGK (Water Danger/Protection)

CAS# 2757-18-8: No data available.

Canada - DSL/NDSL

CAS# 2757-18-8 is listed on Canada's NDSL List.

Canada - WHMIS

This product has a WHMIS classification of D1A, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 2757-18-8 is listed on the Canadian Ingredient Disclosure List.

---

## 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.