Safety Data Sheet

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)


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

Product identifier

<table>
<thead>
<tr>
<th>Product identifier</th>
<th>Methyl orange, powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade name/designation:</td>
<td>59662</td>
</tr>
<tr>
<td>Product No.:</td>
<td>547-58-0</td>
</tr>
<tr>
<td>Synonyms:</td>
<td>no data available</td>
</tr>
<tr>
<td>CAS No.:</td>
<td></td>
</tr>
<tr>
<td>Other means of identification:</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Recommended Use:</th>
<th>For Further Manufacturing Use Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses advised against:</td>
<td>Not for Human or Animal Drug Use</td>
</tr>
</tbody>
</table>

Details of the supplier of the safety data sheet

United States of America

Supplier

VWR International LLC

<table>
<thead>
<tr>
<th>Street</th>
<th>100 Matsonford Road Radnor Corporate Center, Building One, Suite 200 P. O. Box 6660</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postal code/city</td>
<td>Radnor, PA 19087</td>
</tr>
<tr>
<td>Telephone</td>
<td>+1-800-932-5000 toll-free within US/CA +1-610-386-1700</td>
</tr>
<tr>
<td>Telefax</td>
<td>+1-610-728-2103</td>
</tr>
</tbody>
</table>
Manufacturer

**VWR International Co.**

**Street**

2360 Argentia Road

**Postal code/city**

Mississauga, Ontario, L5N 5Z7

**Emergency telephone**

**Telephone**

+1-800-424-9300 (Chemtrec, 24 hrs/day, 7 days/week, USA)

**Preparation Information**

VWR International - Data Compliance

**E-mail**

sds@vwr.com

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**SECTION 2: Hazards identification**

2.1 **Classification of the substance or mixture**

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

<table>
<thead>
<tr>
<th>Hazard classes and hazard categories</th>
<th>Hazard statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, category 3, oral</td>
<td>H301</td>
</tr>
</tbody>
</table>

2.2 **Label elements**

Labelling in accordance with 29 CFR 1910.1200 (OSHA HCS)

**Hazard pictograms**

Signal word: Danger

<table>
<thead>
<tr>
<th>Hazard statements</th>
<th>Precautionary statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>H301</td>
<td>IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...</td>
</tr>
</tbody>
</table>

**Other hazards**

**Hazards not otherwise classified (HNOC)**

no data available
SECTION 3: Composition / information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Methyl orange</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular formula</td>
<td>C14H14N3NaO3S</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>327.34 g/mol</td>
</tr>
<tr>
<td>CAS No.</td>
<td>547-58-0</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 General information

If exposed: Immediately call a POISON CENTER/doctor. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated, saturated clothing. Do not leave affected person unattended.

After inhalation

Immediately call a POISON CENTER/doctor. Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a physician.

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.

In case of ingestion

Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Rinse mouth thoroughly with water. Give nothing to eat or drink.

4.2 Most important symptoms/effects, acute and delayed

no data available

4.3 Indication of any immediate medical attention and special treatment needed

no data available

4.4 Self-protection of the first aider

First aider: Pay attention to self-protection!

4.5 Information to physician

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

The product itself does not burn.

Co-ordinate fire-fighting measures to the fire surroundings.
Extinguishing media which must not be used for safety reasons
no restriction

5.2 Specific hazards arising from the chemical
In case of fire may be liberated:
Carbon dioxide (CO2)
Carbon monoxide
Nitrogen oxides (NOx)
Sulphur oxides

5.3 Advice for firefighters
DO NOT fight fire when fire reaches explosives. In case of fire: Wear self-contained breathing apparatus.

5.4 Additional information
Do not allow run-off from fire-fighting to enter drains or water courses. Do not inhale explosion and combustion gases. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen. Use water spray/stream to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Avoid generation of dust.

6.2 Environmental precautions
Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up
Spilled product must never be returned to the original container for recycling. Clean contaminated objects and areas thoroughly observing environmental regulations. Collect in closed and suitable containers for disposal.

6.4 Additional information
Clear spills immediately.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid: Inhalation
Avoid contact with skin and eyes. Use extractor hood (laboratory). If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Protect from moisture.

7.2 Conditions for safe storage, including any incompatibilities
storage temperature: Ambient temperature
Storage class: 6.1A
Keep container tightly closed in a cool, well-ventilated place.

7.3 Specific end use(s)
no data available
8.1 Control parameters

Does not contain substances above concentration limits fixing an occupational exposure limit.

8.2 Engineering controls

**Appropriate engineering controls**
Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Personal protection equipment (PPE)**
Wear suitable protective clothing. When handling with chemical substances, protective clothing must be worn.

**Eye/face protection**
Eye glasses with side protection

**Skin protection**
When handling with chemical substances, protective gloves must be worn. In the case of wanting to use the gloves again, clean them before taking off and air them well. Recommended glove articles

**By short-term hand contact**
<table>
<thead>
<tr>
<th>Suitable material:</th>
<th>NBR (Nitrile rubber)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness of the glove material:</td>
<td>0,12 mm</td>
</tr>
<tr>
<td>Breakthrough time (maximum wearing time):</td>
<td>&gt; 480 min</td>
</tr>
</tbody>
</table>

**By long-term hand contact**
<table>
<thead>
<tr>
<th>Suitable material:</th>
<th>NBR (Nitrile rubber)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness of the glove material:</td>
<td>0,38 mm</td>
</tr>
<tr>
<td>Breakthrough time (maximum wearing time):</td>
<td>&gt; 480 min</td>
</tr>
</tbody>
</table>

**Respiratory protection**
Respiratory protection necessary at: aerosol or mist formation. If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

**Additional information**
Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

**Environmental exposure controls**
no data available
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

(a) Appearance
   Physical state: solid
   Color: orange
(b) Odour: no data available
(c) Odour threshold: no data available

Safety relevant basic data

(d) pH: 6.5 (5 g/l; H₂O; 20 °C)
(e) Melting point/freezing point: > 300 °C
(f) Initial boiling point and boiling range: ~90 °C (1013 hPa)
(g) Flash point: 38 °C
(h) Evaporation rate: no data available
(i) Flammability (solid, gas): not applicable
(j) Flammability or explosive limits
   Lower explosion limit: 3.5 % (v/v)
   Upper explosion limit: 15 % (v/v)
(k) Vapour pressure: no data available
(l) Vapour density: no data available
(m) Relative density: ~1 g/cm³ (20 °C)
(n) Solubility(ies)
   Water solubility (g/L): 5 g/l (20 °C)
   Soluble (g/L) in Ethanol: no data available
(o) Partition coefficient: n-octanol/water: -0.66 (20 °C; calculated)
(p) Auto-ignition temperature: no data available
(q) Decomposition temperature: no data available
(r) Viscosity
   Kinematic viscosity: no data available
   Dynamic viscosity: no data available
(s) Explosive properties: not applicable
(t) Oxidising properties: not applicable

9.2 Other information

Bulk density: ~1 g/cm³ (20 °C)
Refraction index: no data available
Dissociation constant: no data available
Surface tension: no data available
Henry constant: no data available

SECTION 10: Stability and reactivity

10.1 Reactivity
no data available
10.2 Chemical stability
no data available

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to avoid
no data available

10.5 Incompatible materials
no data available

10.6 Hazardous decomposition products
no data available

10.7 Additional information
no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects
Acute oral toxicity:
LD50: > 60 mg/kg - Rat - (RTECS)

Acute dermal toxicity:
no data available

Acute inhalation toxicity:
no data available

Irritant and corrosive effects
Primary irritation to the skin:
not applicable

Irritation to eyes:
not applicable

Irritation to respiratory tract:
not applicable

Respiratory or skin sensitization
In case of skin contact: not sensitising
After inhalation: not sensitising

STOT-single exposure
not applicable

STOT-repeated exposure
not applicable
CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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

<table>
<thead>
<tr>
<th>Germ cell mutagenicity</th>
<th>Reproductive toxicity</th>
<th>Aspiration hazard</th>
<th>Other adverse effects</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>No indications of human germ cell mutagenicity exist.</td>
<td>No indications of human reproductive toxicity exist.</td>
<td>Not applicable</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

SECTION 12: Ecological information

12.1 Ecotoxicity

- Fish toxicity: no data available
- Daphnia toxicity: no data available
- Algae toxicity: no data available
- Bacteria toxicity: no data available

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
Partition coefficient: n-octanol/water: \(-0.66\) (20 °C; berechnet)

12.4 Mobility in soil:
no data available

12.5 Results of PBT/vPvB assessment
no data available
12.6 Other adverse effects
no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

**Appropriate disposal / Product**
Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

Waste code product: 160508

**Appropriate disposal / Package**
Dispose according to legislation. Handle contaminated packages in the same way as the substance itself.

**Additional information**
no data available

SECTION 14: Transport information

**Land transport (DOT)**

<table>
<thead>
<tr>
<th>UN-No.:</th>
<th>3143</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name:</td>
<td>DYE, SOLID, TOXIC, N.O.S. (METHYL ORANGE)</td>
</tr>
<tr>
<td>Class(es):</td>
<td>6.1</td>
</tr>
<tr>
<td>Classification code:</td>
<td>T2</td>
</tr>
<tr>
<td>Hazard label(s):</td>
<td>6.1</td>
</tr>
<tr>
<td>Packing group:</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards:</td>
<td>No</td>
</tr>
<tr>
<td>Marine pollutant:</td>
<td>No</td>
</tr>
</tbody>
</table>

**Special precautions for user:**

**Sea transport (IMDG)**

<table>
<thead>
<tr>
<th>UN-No.:</th>
<th>3143</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name:</td>
<td>DYE, SOLID, TOXIC, N.O.S. (METHYL ORANGE)</td>
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<tr>
<td>Class(es):</td>
<td>6.1</td>
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<tr>
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<td>Hazard label(s):</td>
<td>6.1</td>
</tr>
<tr>
<td>Packing group:</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards:</td>
<td>No</td>
</tr>
<tr>
<td>MARINE POLLUTANT:</td>
<td>no data available</td>
</tr>
</tbody>
</table>

**Special precautions for user:**

**Segregation group:**
- EmS-No.:
  - F-A S-A

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
not relevant
Air transport (ICAO-TI / IATA-DGR)

UN-No.: 3143
Proper Shipping Name: DYE, SOLID, TOXIC, N.O.S. (METHYL ORANGE)
Class(es): 6.1
Classification code: 6.1
Hazard label(s): III
Packing group: III
Special precautions for user:

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA 313 Components
no data available
no data available
no data available

Pennsylvania Right To Know Components
no data available

New Jersey Right To Know Components
no data available

California Prop. 65 Components
no data available

SECTION 16: Other information

Abbreviations and acronyms

ACGIH - American Conference of Governmental Industrial Hygiensts
DOT - Department of Transportation
IARC - International Agency for Research on Cancer
IATA-DGR - International Air Transport Association-Dangerous Goods Regulations
ICAO-TI - International Civil Aviation Organization-Technical Instructions
IMDG - International Maritime Code for Dangerous Goods
LTV - Long Term Value
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program
OSHA - Occupational Safety & Health Administration
PBT - Persistent, Bioaccumulative and Toxic
PEL - Permissible Exposure Limit
STV - Short Term Value
SVHC - Substances of Very High Concern
TLV - Threshold Limit Value
vPvB - very Persistent, very Bioaccumulative  
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road  
AGS - Committee on Hazardous Substances (Ausschuss für Gefahrstoffe)  
CLP - Regulation on Classification, Labelling and Packaging of Substances and Mixtures  
DFG - German Research Foundation (Deutsche Forschungsgemeinschaft)  
Gestis - Information system on hazardous substances of the German Social Accident Insurance (Gefahrstoffinformationssystem der Deutschen Gesetzlichen Unfallversicherung)  
RID - Regulation concerning the International Carriage of Dangerous Goods by Rail

Additional information
Indication of changes: general update

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guidance. The information in this document is based on the present state 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. VWR International and his Affiliates shall not be held liable for any damage resulting from handling.