



# Fisher Scientific

Part of Thermo Fisher Scientific

## SAFETY DATA SHEET

Creation Date 03-Dec-2010

Revision Date 16-Jul-2014

Revision Number 1

### 1. Identification

**Product Name** Malachite Green oxalate

**Cat No. :** M290-25

**Synonyms** C.I. 42000; Basic Green 4

**Recommended Use** Laboratory chemicals.

**Uses advised against** No Information available

**Details of the supplier of the safety data sheet**

**Company**

Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

**Emergency Telephone Number**

CHEMTREC®, Inside the USA: 800-424-9300  
CHEMTREC®, Outside the USA: 001-703-527-3887

### 2. Hazard(s) identification

**Classification**

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

|                                   |            |
|-----------------------------------|------------|
| Acute oral toxicity               | Category 3 |
| Serious Eye Damage/Eye Irritation | Category 1 |
| Reproductive Toxicity             | Category 2 |

**Label Elements**

**Signal Word**

Danger

**Hazard Statements**

Toxic if swallowed  
Causes serious eye damage  
Suspected of damaging the unborn child

**Precautionary Statements****Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product

**Response**

IF exposed or concerned: Get medical attention/advice

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a POISON CENTER or doctor/physician

**Ingestion**

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

Rinse mouth

**Storage**

Store locked up

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Very toxic to aquatic life with long lasting effects

### 3. Composition / information on ingredients

| Component  | CAS-No    | Weight % |
|--|-----------|----------|
| Ammonium,<br>(4-(p-(dimethylamino)-.alpha.-phenylbenzylidene)-2,<br>5-cyclohexadien-1-ylidene)- dimethyl-, oxalate (2:1),<br>oxalate (1:1) | 2437-29-8 | 100      |

### 4. First-aid measures

|  |   |
|--|---|
| <b>Eye Contact</b>                     | Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. |
| <b>Skin Contact</b>                    | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.           |
| <b>Inhalation</b>                      | Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.                   |
| <b>Ingestion</b>                       | Do not induce vomiting. Call a physician or Poison Control Center immediately.  |
| <b>Most important symptoms/effects</b> | Causes eye burns.   |
| <b>Notes to Physician</b>              | Treat symptomatically   |

### 5. Fire-fighting measures

**Suitable Extinguishing Media** Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. chemical foam.

|   |  |
|---|--|
| <b>Unsuitable Extinguishing Media</b>   | No information available                             |
| <b>Flash Point Method -</b>             | No information available<br>No information available |
| <b>Autoignition Temperature</b>         | No information available                             |
| <b>Explosion Limits</b>                 |  |
| <b>Upper</b>                            | No data available                                    |
| <b>Lower</b>                            | No data available                                    |
| <b>Sensitivity to Mechanical Impact</b> | No information available                             |
| <b>Sensitivity to Static Discharge</b>  | No information available                             |

**Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**

Nitrogen oxides (NOx) Carbon monoxide (CO) Carbon dioxide (CO<sub>2</sub>)

**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.

**NFPA**

**Health**  
3

**Flammability**  
1

**Instability**  
0

**Physical hazards**  
N/A

**6. Accidental release measures**

|   |  |
|---|--|
| <b>Personal Precautions</b>                 | Use personal protective equipment. Ensure adequate ventilation. Avoid contact with eyes. Avoid dust formation.                       |
| <b>Environmental Precautions</b>            | Do not flush into surface water or sanitary sewer system. Keep out of waterways. Avoid release to the environment. Collect spillage. |
| <b>Methods for Containment and Clean Up</b> | Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.                                 |

**7. Handling and storage**

|                 |  |
|-----------------|--|
| <b>Handling</b> | Wear personal protective equipment. Use only under a chemical fume hood. Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Wash hands before breaks and immediately after handling the product. |
| <b>Storage</b>  | Keep in a dry, cool and well-ventilated place. Keep container tightly closed.  |

**8. Exposure controls / personal protection**

|                                      |   |
|--------------------------------------|---|
| <b>Exposure Guidelines</b>           | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.   |
| <b>Engineering Measures</b>          | Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.   |
| <b>Personal Protective Equipment</b> |   |
| <b>Eye/face Protection</b>           | 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.   |
| <b>Skin and body protection</b>      | Wear appropriate protective gloves and clothing to prevent skin exposure.   |
| <b>Respiratory Protection</b>        | 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. |
| <b>Hygiene Measures</b>              | Handle in accordance with good industrial hygiene and safety practice.  |

## 9. Physical and chemical properties

|   |  |
|---|--|
| <b>Physical State</b>                         | Powder Solid   |
| <b>Appearance</b>                             | Green  |
| <b>Odor</b>                                   | Odorless   |
| <b>Odor Threshold</b>                         | No information available   |
| <b>pH</b>                                     | 2 (2 % Solution)   |
| <b>Melting Point/Range</b>                    | 164 °C / 327.2 °F  |
| <b>Boiling Point/Range</b>                    | No information available   |
| <b>Flash Point</b>                            | No information available   |
| <b>Evaporation Rate</b>                       | No information available   |
| <b>Flammability (solid,gas)</b>               | No information available   |
| <b>Flammability or explosive limits</b>       |  |
| <b>Upper</b>                                  | No data available  |
| <b>Lower</b>                                  | No data available  |
| <b>Vapor Pressure</b>                         | negligible   |
| <b>Vapor Density</b>                          | No information available   |
| <b>Relative Density</b>                       | No information available   |
| <b>Solubility</b>                             | No information available   |
| <b>Partition coefficient; n-octanol/water</b> | No data available  |
| <b>Autoignition Temperature</b>               | No information available   |
| <b>Decomposition temperature</b>              | No information available   |
| <b>Viscosity</b>                              | No information available   |
| <b>Molecular Formula</b>                      | C <sub>23</sub> H <sub>25</sub> N <sub>2</sub> . 1/2 C <sub>2</sub> H <sub>2</sub> O <sub>4</sub> . C <sub>2</sub> H <sub>4</sub> O <sub>4</sub> |
| <b>Molecular Weight</b>                       | 927.03   |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactive Hazard</b>                  | None known, based on information available  |
| <b>Stability</b>                        | Stable.   |
| <b>Conditions to Avoid</b>              | Incompatible products. Avoid dust formation.  |
| <b>Incompatible Materials</b>           | Strong oxidizing agents, Strong bases, Strong reducing agents                               |
| <b>Hazardous Decomposition Products</b> | Nitrogen oxides (NO <sub>x</sub> ), Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ) |
| <b>Hazardous Polymerization</b>         | Hazardous polymerization does not occur.  |
| <b>Hazardous Reactions</b>              | None under normal processing.   |

## 11. Toxicological information

### Acute Toxicity

#### Component Information

**Toxicologically Synergistic Products** No information available

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

|                        |  |
|------------------------|--|
| <b>Irritation</b>      | Causes severe eye irritation and possible burns  |
| <b>Sensitization</b>   | No information available   |
| <b>Carcinogenicity</b> | The table below indicates whether each agency has listed any ingredient as a carcinogen. |

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|-----------|--------|------|-----|-------|------|--------|
|           |        |      |     |       |      |        |

|   |           |            |            |            |            |            |
|---|-----------|------------|------------|------------|------------|------------|
| Ammonium, (4-(p-(dimethylamino)-alpha.-phenylbenzylidene)-2,5-cyclohexadiene)-1-ylidene)- dimethyl-, oxalate (2:1), oxalate (1:1) | 2437-29-8 | Not listed |
|---|-----------|------------|------------|------------|------------|------------|

**Mutagenic Effects** Mutagenic effects have occurred in experimental animals.

**Reproductive Effects** No information available.

**Developmental Effects** May cause harm to the unborn child.

**Teratogenicity** Teratogenic effects have occurred in experimental animals.

**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** See actual entry in RTECS for complete information.

## 12. Ecological information

**Ecotoxicity**

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not empty into drains.

**Persistence and Degradability** No information available

**Bioaccumulation/ Accumulation** No information available.

**Mobility** No information available.

## 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.

## 14. Transport information

**DOT**

**UN-No** UN2811  
**Proper Shipping Name** TOXIC SOLID, ORGANIC, N.O.S.  
**Proper technical name** (MALACHITE GREEN OXALATE)  
**Hazard Class** 6.1  
**Packing Group** III

**TDG**

**UN-No** UN2811  
**Proper Shipping Name** TOXIC SOLID, ORGANIC, N.O.S.  
**Hazard Class** 6.1  
**Packing Group** III

**IATA**

**UN-No** 2811  
**Proper Shipping Name** TOXIC SOLID, ORGANIC, N.O.S.\*  
**Hazard Class** 6.1  
**Packing Group** III

**IMDG/IMO**

UN-No 2811  
 Proper Shipping Name TOXIC SOLID, ORGANIC, N.O.S.  
 Hazard Class 6.1  
 Packing Group III

**15. Regulatory information**

**International Inventories**

| Component   | TSCA | DSL | NDSL | EINECS    | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|---|------|-----|------|-----------|--------|-----|-------|------|------|-------|------|
| Ammonium, (4-(p-(dimethylamino)-.alpha.-phenylbenzylidene)-2,5-cyclohexadien-1-ylidene)-dimethyl-, oxalate (2:1), oxalate (1:1) | -    | X   | -    | 219-441-7 | -      |     | X     | X    | X    | X     | X    |

**Legend:**

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

**U.S. Federal Regulations**

TSCA 12(b) Not applicable

SARA 313 Not applicable

**SARA 311/312 Hazardous Categorization**

|                                   |     |
|-----------------------------------|-----|
| Acute Health Hazard               | Yes |
| Chronic Health Hazard             | Yes |
| Fire Hazard                       | No  |
| Sudden Release of Pressure Hazard | No  |
| Reactive Hazard                   | No  |

Clean Water Act Not applicable

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration  
 Not applicable

CERCLA  
 Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals

State Right-to-Know Not applicable

**U.S. Department of Transportation**

Reportable Quantity (RQ): N

DOT Marine Pollutant N  
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

**WHMIS Hazard Class** D1B Toxic materials  
D2A Very toxic materials  
D2B Toxic materials

**16. Other information**

**Prepared By** Regulatory Affairs  
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**Creation Date** 03-Dec-2010  
**Revision Date** 16-Jul-2014  
**Print Date** 16-Jul-2014  
**Revision Summary** This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

**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.

**End of SDS**