



# Malachite Green Oxalate C.I. 42000 RRBD39

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758 and SI 2020/1577

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

Product Name Malachite Green Oxalate C.I. 42000  
Product code RRBD39  
CAS No. 2437-29-8  
EC No. 219-441-7  
REACH Registration No. Not known.

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

Identified Use(s) Industrial/professional : PROC15 Use as laboratory reagent  
Uses Advised Against Not known.

### 1.3 Details of the supplier of the safety data sheet

Manufacturer  
Company Identification Atom Scientific Ltd  
Address of Manufacturer Unit 2A East Tame Business Park  
Rexcine Way  
Hyde  
Cheshire  
Postal code SK14 4GX  
Telephone: 0161 3665123  
Fax 01704 337167  
E-mail technical@atomscientific.com  
Office hours 08:00 - 17:00

Supplier  
Company Identification Atom Scientific Ltd  
Address of Supplier Unit 2A East Tame Business Park  
Rexcine Way  
Hyde  
Cheshire  
Postal code SK14 4GX  
Telephone: 0161 3665123  
Fax 01704 337167  
E-mail technical@atomscientific.com  
Office hours 08:00 - 17:00

### 1.4 Emergency telephone number

Emergency Phone No. 07833453806  
Contact Peter Keenan

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

GB CLP Regulation, UK SI 2019/720 and UK SI 2020/1567  
Acute Tox. 4 :Harmful if swallowed.  
Eye Dam. 1 :Causes serious eye damage.  
Repr. 2 :Suspected of damaging the unborn child.  
Aquatic Acute 1 :Very toxic to aquatic life.  
Aquatic Chronic 1 :Very toxic to aquatic life with long lasting effects.

### 2.2 Label elements

According to GB CLP Regulations, UK SI 2019/720 and UK SI 2020/1567  
Product Name Malachite Green Oxalate C.I. 42000

Hazard Pictogram(s)



GHS05



GHS08



GHS07



GHS09

Signal Word(s)

Danger

Hazard Statement(s)

H302: Harmful if swallowed.  
H318: Causes serious eye damage.  
H361d: Suspected of damaging the unborn child.  
H410: Very toxic to aquatic life with long lasting effects.



## Malachite Green Oxalate C.I. 42000 RRBD39

### Precautionary Statement(s)

P273: Avoid release to the environment.  
 P280: Wear protective gloves/protective clothing/eye protection/face protection.  
 P305+P351+P338+P310: 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 CENTRE/doctor.  
 P391: Collect spillage.  
 P501: Dispose of contents in accordance with local, state or national legislation.

### 2.3 Other hazards

None known.

### 2.4 Additional Information

For full text of H/P Statements see section 16.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / Registration number(s)	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
Malachite green oxalate	2437-29-8	219-441-7	100	Acute Tox. 4 H302 Eye Dam. 1 H318 Repr. 2 H361d Aquatic Acute 1 H400 Aquatic Chronic 1 H410	GHS05 GHS08 GHS07 GHS09

### 3.2 Mixtures

Not applicable.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

Inhalation IF exposed or concerned: Get medical advice/attention.  
 Skin Contact IF exposed or concerned: Get medical advice/attention.  
 Eye Contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor.  
 Ingestion Rinse mouth. Immediately call a POISON CENTRE/doctor.

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

Causes burns.

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

IF exposed or concerned: Get medical advice/attention. Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

Suitable Extinguishing media As appropriate for surrounding fire.  
 Unsuitable extinguishing media None.

### 5.2 Special hazards arising from the substance or mixture

May decompose in a fire, giving off toxic and irritant vapours.

### 5.3 Advice for firefighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Dike fire control water for later disposal.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid dust generation. Do not breathe dust. Ensure full personal protection (including respiratory protection) during removal of spillages.

### 6.2 Environmental precautions

Avoid release to the environment. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

### 6.3 Methods and material for containment and cleaning up

Collect spillage. Sweep up spilled substance and remove to safe place. Use vacuum equipment for collecting spilt materials, where practicable. Contain spillages with



## Malachite Green Oxalate C.I. 42000 RRBD39

sand, earth or any suitable adsorbent material. Earth may be shovelled to contain spillage and to avoid contamination of sewers and watercourses.

### 6.4 Reference to other sections

See Also Section 8, 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash hands and exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

### 7.2 Conditions for safe storage, including any incompatibilities

Store locked up.

Storage temperature

Ambient.

Storage life

Stable under normal conditions.

Incompatible materials

None known.

### 7.3 Specific end use(s)

Industrial/professional : PROC15 Use as laboratory reagent

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

8.1.1 Occupational Exposure Limits

No Occupational Exposure Limit assigned.

### 8.2 Exposure controls

8.2.1. Appropriate engineering controls

Use with ventilation, local exhaust ventilation or breathing protection. A washing facility/water for eye and skin cleaning purposes should be present.

8.2.2. Personal protection equipment

Eye Protection

Wear eye protection with side protection (EN ISO 16321-1).



Skin protection

Wear protective clothing and gloves: Impervious gloves (EN 374). Breakthrough time of the glove material: refer to the information provided by the gloves' producer.



Respiratory protection

A suitable dust mask or dust respirator with filter type P (EN143 or EN405) may be appropriate.



Thermal hazards

None known.



8.2.3. Environmental Exposure Controls

Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance

Solid.  
Colour : Green.

Odour

Not known.

Odour threshold

Not known.

pH

Not known.

Melting point/freezing point

144 - 150°C

Initial boiling point and boiling range

Not known.

Flash Point

Not applicable.

Evaporation rate

Not known.

Flammability (solid, gas)

Not known.

Upper/lower flammability or explosive limits

Not known.



## Malachite Green Oxalate C.I. 42000 RRBD39

Vapour pressure	Not known.
Vapour density	Not known.
Density (g/ml)	Not known.
Relative density	Not known.
Solubility(ies)	Solubility (Water) : Soluble. Solubility (Other) : Soluble in: Ethanol
Partition coefficient: n-octanol/water	Not known.
Auto-ignition temperature	Not known.
Decomposition Temperature (°C)	164°C
Viscosity	Not known.
Explosive properties	Not known.
Oxidising properties	Not known.
<b>9.2 Other information</b>	None.

### SECTION 10: STABILITY AND REACTIVITY

<b>10.1 Reactivity</b>	None anticipated.
<b>10.2 Chemical Stability</b>	Stable under normal conditions.
<b>10.3 Possibility of hazardous reactions</b>	No hazardous reactions known if used for its intended purpose.
<b>10.4 Conditions to avoid</b>	None anticipated.
<b>10.5 Incompatible materials</b>	Not known.
<b>10.6 Hazardous decomposition products</b>	No hazardous decomposition products known.

### SECTION 11: TOXICOLOGICAL INFORMATION

<b>11.1 Information on toxicological effects</b>	
Acute toxicity - Ingestion	Harmful if swallowed.
Acute toxicity - Skin Contact	Not classified.
Acute toxicity - Inhalation	Not classified.
Skin corrosion/irritation	Not classified.
Serious eye damage/irritation	Causes serious eye damage.
Skin sensitization data	Not classified.
Respiratory sensitization data	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive toxicity	Suspected of damaging the unborn child.
Lactation	Not classified.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Aspiration hazard	Not classified.
<b>11.2 Other information</b>	Not known.

### SECTION 12: ECOLOGICAL INFORMATION

<b>12.1 Toxicity</b>	Very toxic to aquatic life with long lasting effects.
Toxicity - Aquatic invertebrates	EC50 -Daphnia magna -0.29mg/l (48 hour)
Toxicity - Fish	Not known.
Toxicity - Algae	Not known.
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.
<b>12.2 Persistence and degradability</b>	Not known.
<b>12.3 Bioaccumulative potential</b>	Not known.
<b>12.4 Mobility in soil</b>	Not known.



## Malachite Green Oxalate C.I. 42000 RRBD39

### 12.5 Results of PBT and vPvB assessment

Substance(s) in the mixture do(es) not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII, or a PBT/vPvB assessment was not conducted

### 12.6 Other adverse effects

None known.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Dispose of contents in accordance with local, state or national legislation. Send to a licensed recycler, reclaimer or incinerator. Dispose of this material and its container to hazardous or special waste collection point. Dispose at suitable refuse site.

### 13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

## SECTION 14: TRANSPORT INFORMATION

### 14.1 UN number

UN No. 2811

### 14.2 UN proper shipping name

UN proper shipping name TOXIC SOLID, ORGANIC, N.O.S. (MALACHITE GREEN OXALATE)

### 14.3 Transport hazard class(es)

ADR/RID

ADR/RID Class 6.1  
ADR Classification Code T2  
Special Provisions 274 614  
Limited Quantities 5 kg  
Excepted Quantities E1  
Emergency Action Code 2X  
Packing Instructions for Packages P002 IBC08 LP02 R001  
Special Packing Provisions for Packages B3  
Mixed Packing Instructions for Packages MP10  
Instructions for Portable Tanks T1  
Special Provisions for Portable Tanks TP33  
Tank Code for Tanks SGAH L4BH  
Special Provisions for Tanks TU15 TE19  
Vehicle for Tank Carriage AT  
ADR Transport Category 2  
Tunnel Restriction Code E

Special Provisions for Carriage - Packages

Special Provisions for Carriage - Bulk VC1 VC2 AP7  
Special Provisions for Carriage - Loading, CV13 CV28

Unloading and Handling

Special Provisions for Carriage - S9

Operation

ADR HIN 60

IMDG

IMDG Class 6.1  
Special Provisions 223 274  
Limited Quantities 5 kg  
Excepted Quantities E1

Mixed Packing Instructions for Packages P002 IBC08

Special Packing Provisions for Packages B3

Instructions for Portable Tanks T1

Special Provisions for Portable Tanks TP33

IMDG EMS F-A, S-A

Stowage and Handling Category A

Segregation

Marine Pollutant

ICAO/IATA

ICAO/IATA Class 6.1

Excepted Quantities E1

Passenger and Cargo Aircraft Limited Y645

Quantities Packing Instructions



## Malachite Green Oxalate C.I. 42000 RRBD39

Passenger and Cargo Aircraft Limited Quantities Max net Qty 10Kg  
 Passenger and Cargo Aircraft Packing Instructions 670  
 Passenger and Cargo Aircraft Max net Qty 100Kg  
 Cargo Aircraft Packing Instructions 677  
 Cargo Aircraft Max net Qty 200Kg  
 Special Provisions A3, A5  
 Emergency Response Guidebook (ERG) 6L  
 Code  
 Labels  
 Labels 6.1



### 14.4 Packing group

Packing group III

### 14.5 Environmental hazards

Environmental hazards ADR/RID: Environmentally Hazardous  
 IMDG: Marine Pollutant

### 14.6 Special precautions for user

Special precautions for user Not known.

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No information available

## SECTION 15: REGULATORY INFORMATION

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

United Kingdom Regulations - Authorisations and/or Restrictions On Use

UK REACH Candidate List of Substances Not listed

of Very High Concern for Authorisation

UK REACH Authorisation List (Annex Not listed

XIV) list of substances subject to authorisation

UK REACH Restrictions List (Annex XVII) Malachite green oxalate (2437-29-8)

Restrictions on the manufacture, placing

on the market and use of certain

dangerous substances, mixtures and

articles

UK REACH Rolling Action Plan (RAP) Not listed

Persistent Organic Pollutants (Various Not listed

Amendments) Regulations 2019 (SI

2019/1099)

The Ozone-Depleting Substances and Not listed

Fluorinated Greenhouse Gases

(Amendment etc.) (EU Exit) Regulations

2019 (SI 2019/583)

The Prior Informed Consent (PIC) Not listed

Regulations concerning the export and

import of hazardous chemicals

SI2008/2108 as amended

European Regulations - Authorisations and/or Restrictions On Use

Community Rolling Action Plan (CoRAP) Not listed

Seveso Directive

Code E1: Lower Tier Quantity 100 - Upper Tier Quantity 200

### 15.2 Chemical Safety Assessment

United Kingdom

A REACH chemical safety assessment has not been carried out.



## Malachite Green Oxalate C.I. 42000 RRBD39

### SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

#### LEGEND

Hazard Pictogram(s)



GHS05



GHS08



GHS07



GHS09

Hazard classification

Acute Tox. 4 : Acute toxicity, Category 4  
 Eye Dam. 1 : Serious eye damage/irritation, Category 1  
 Repr. 2 : Reproductive toxicity, Category 2  
 Aquatic Acute 1 : Hazardous to the aquatic environment, Acute, Category 1  
 Aquatic Chronic 1 : Hazardous to the aquatic environment, Chronic, Category 1

Hazard Statement(s)

H302: Harmful if swallowed.  
 H318: Causes serious eye damage.  
 H361d: Suspected of damaging the unborn child.  
 H400: Very toxic to aquatic life.  
 H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statement(s)

P201: Obtain special instructions before use.  
 P202: Do not handle until all safety precautions have been read and understood.  
 P264: Wash hands and exposed skin thoroughly after handling.  
 P270: Do not eat, drink or smoke when using this product.  
 P273: Avoid release to the environment.  
 P280: Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P312: IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.  
 P305+P351+P338+P310: 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 CENTRE/doctor.  
 P308+P313: IF exposed or concerned: Get medical advice/attention.  
 P330: Rinse mouth.  
 P391: Collect spillage.  
 P405: Store locked up.

Acronyms

P501: Dispose of contents in accordance with local, state or national legislation.  
 ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
 ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road  
 ATE : Acute Toxicity Estimate  
 CAS : Chemical Abstracts Service  
 DNEL : Derived No Effect Level  
 EC : European Community  
 EINECS : European Inventory of Existing Commercial Chemical Substances  
 IATA : International Air Transport Association  
 IBC : Intermediate Bulk Container  
 ICAO : International Civil Aviation Organization  
 IMDG : International Maritime Dangerous Goods  
 LTEL : Long term exposure limit  
 PBT : Persistent, Bioaccumulative and Toxic  
 PNEC : Predicted No Effect Concentration  
 REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals  
 RID : Regulations concerning the International Carriage of Dangerous Goods by Rail  
 STEL : Short term exposure limit  
 STOT : Specific Target Organ Toxicity



## Malachite Green Oxalate C.I. 42000 RRBD39

UN : United Nations

vPvB : very Persistent and very Bioaccumulative

Key literature references and sources for GB CLP Regulation, UK SI 2019/720 and UK SI 2020/1567  
data used to compile the SDS

Training Advice

Disclaimers

Regular safety training as appropriate

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Atom Scientific Ltd gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Atom Scientific Ltd accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.