

Version: Discofinechem2
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MATERIAL SAFETY DATA SHEET

Malachite Green

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers :

Product name : Malachite Green

Product number : 0002437298

Brand : Discovery

Reach No.: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require registration or the registration is envisaged for a later

Registration deadline.

Cas No. : 2437-29-8

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

Identified uses : laboratory chemicals, manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company: Discovery Fine Chemicals Ltd
Unit 4A, Old Forge Road, Ferndown Ind. Estate,
Wimborne, Dorset, BH21 7RR.
United Kingdom

Telephone: +44 (0)1202 874517

Fax: +44 (0)845 0944 385

E-mail: discovery@discofinechem.com

1.4 Emergency telephone : +44 (0)7912 646956

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Acute Toxicity (Category 3) H301

Serious eye damage (Category 1) H318

Reproductive toxicity (Category 2) H361fd

Short-term (acute) aquatic hazard (Category 1) H400

Long-term (chronic) aquatic hazard (Category 1) H410

For the full text of the H-Statements mentioned in this section see section 16

Classification according to EU Directives 67/548/EEC or 1999/45/EC as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Pictogram



Signal word: Danger

Hazard statement(s)

H301 Toxic if swallowed

H318 Causes serious eye damage.

H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

H401 Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P202 Do not handle until all safety precautions have been read.

P264 Wash skin thoroughly after handling

P273 Avoid release to the environment

P280 Wear protective gloves/clothing and eye/face protection
 P301+P310 IF SWALLOWED: immediately call poison centre/doctor
 P305+P351+P338 If in eyes rinse cautiously with water for several minutes.
 Supplemental hazard : none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula: $C_{23}H_{25}N_2 \cdot C_2H_2O_4 \cdot 0.5C_2H_2O_4$
 Molecular Weight: 463.50 g/mol
 Cas No: 2437-29-8
 E.C.No: 219-441-7

Component	Classification	Concentration
Malachite Green CAS-No. 2437-29-8	Acute Tox 3; Eye dam. 1. Repr 2; Aquatic acute 1 Aquatic chronic 1 H301, H318, H361fd, H400, H410	<=100%

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

If inhaled – after inhalation: fresh air. Call a doctor.

In case of skin contact – Take off contaminated clothing. Rinse skin with water. Call a doctor.

In case of eye contact – Flush eyes with plenty of water. Call an ophthalmologist.

If swallowed – Make victim drink water (two glasses at most). Call a doctor. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.

4.2 Most important symptoms and effects, both acute and delayed – the most important known symptoms and effects are described in the labelling (see section 2.2 and/or in section 11).

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media – water foam carbon dioxide (CO₂) dry powder

Unsuitable extinguishing media – for this substance no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides. Nitrogen oxides (NO_x). Combustible. Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters – stay in danger area with self contained breathing apparatus for firefighting if necessary. Prevent skin contact by wearing suitable protective clothing

5.4 Further information - suppress knock down gases. Stop fire extinguishing water from contaminating surface water

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions – Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up – Cover drains. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections - For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance.

Hygiene measures

Immediately change contaminated clothing. Apply preventative skin protection. Wash hands. For precautions see section 2.2

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place accessible only to qualified persons.

Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.1 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

Eye/face protection - Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles.

Skin protection - Handle with gloves. Gloves must be inspected prior to use.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatrill®

Splash protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatrill®

Body Protection – protective clothing.

Respiratory protection – required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards : DIN EN 143, DIN 14387. Recommended filter type : filter type P3

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance - Form: powder
- b) Odour - no data available
- c) Odour Threshold - no data available
- d) Melting point/freezing point - Melting point/range: - 149-153°C
- e) Initial boiling point and boiling range - no data available
- f) Flammability (solid, gas) - no data available
- g) Upper/lower flammability or explosive limits - no data available
- h) Flash point – not applicable
- i) Autoignition temperature - no data available
- j) Decomposition temperature - no data available
- k) pH - 4.5 – 7.5
- l) Viscosity – viscosity, kinematic: no data available
- viscosity dynamic: no data available
- m) Water solubility – 2.5g/l at 25 deg c, practically insoluble
- n) Partition coefficient: log Pow -0.21.
- o) Vapour pressure - no data available

- p) Density - no data available
Relative density – no data available
 - q) Relative vapour density - no data available
 - r) Particle characteristics - no data available
 - s) Explosive properties – no data available
 - t) Oxidizing properties - no data available
- 9.2 Other safety information - no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

The following applies in general to flammable organic substances and mixtures : in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed

10.2 Chemical stability

The product is chemically stable under recommended storage conditions

10.3 Possibility of hazardous reactions

Violent reactions possible with: Strong oxidizing agents

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 275 mg/kg

Remarks: Behavioral:Change in motor activity (specific assay).

Diarrhea

Gastrointestinal:Other changes.

(RTECS)

Acute toxicity estimate Oral - 275 mg/kg

(ATE value derived from LD50/LC50 value)

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation - no data available

Serious eye damage/eye irritation

Remarks: Causes serious eye damage. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Respiratory or skin sensitization

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals

Germ cell mutagenicity

No data available

Carcinogenicity

Suspected of causing cancer

Reproductive toxicity

Suspected of damaging the unborn child.

Suspected of damaging fertility.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

Endocrine disrupting properties

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH article 57(f), at levels of 0.1% or higher.

12. ECOLOGICAL INFORMATION

12.1 Toxicity –

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 0.29 mg/l - 48 h Remarks: (ECOTOX Database)

12.2 Persistence and degradability - no data available

12.3 Bio-accumulative potential - no data available

12.4 Mobility in soil - no data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH article 57(f), at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Waste material must be disposed of in accordance with the directive on waste 2008/98/EC in accordance with national regulations. No mixing with other waste. Handle uncleaned containers like the product itself.

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 2811 IMDG: 2811 IATA: 2811

14.2 UN proper shipping name

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (Malachite green oxalate)

IMDG: TOXIC SOLID, ORGANIC, N.O.S. (Malachite green oxalate)

IATA: TOXIC SOLID, ORGANIC, N.O.S. (Malachite green oxalate)

14.3 Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards

ADR/RID: yes IMDG Marine Pollutant: yes IATA: no

14.6 Special precautions for user

Further Information

Not classified as dangerous in the meaning of transport regulations

15. REGULATORY INFORMATION

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of DIR 94/33/EC on the protection of young people at work

Authorisations and/or restrictions on use

National legislation Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. - H2 - ACUTE TOXIC - E1 - ENVIRONMENTAL HAZARDS

15.2 Chemical Safety Assessment –

For this product a chemical safety assessment was not carried out.

16. OTHER INFORMATION

Text of H-code(s) and R-phrase(s) mentioned in Section 2 and 3

Hazard statement(s)

H301 Toxic if swallowed

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H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

H401 Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P202 Do not handle until all safety precautions have been read.
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P301+P310 IF SWALLOWED: immediately call poison centre/doctor
P305+P351+P338 If in eyes rinse cautiously with water for several minutes.

Further information

WARRANTY

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.

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APPENDIX

ABBREVIATIONS FULL TEXT

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
ALARP As low as is reasonably practicable
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging Regulations
COSHH Control of Substances Hazardous to Health EC Number European Community Number
EC50 Effective Concentration 50%
ECHA European Chemicals Agency
ELINCS European List of Notified Chemical Substances
EINECS European Inventory of Existing Commercial Chemical Substances GHS Globally Harmonised System HSE
Health & Safety Executive UK
IATA International Air Transport Association
IM Intramuscular
IMDG The International Maritime Dangerous Goods Code
IP Intraperitoneal
IV Intravascular
LD50 Lethal Dose 50%
LOEC Lowest Observable Effective Concentration
LTEL Long Term Exposure Limit
NOEC No Observable Effective Concentration
OECD Organisation for Economic Cooperations and Development
OSHA European Agency for Safety and Health at work
PBT Persistent Bioaccumulative and Toxic substance
PPE Personal Protective Equipment
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals
RID Regulations Concerning the International Carriage of Dangerous Goods by Rail
SC Subcutaneous
SDS Safety Data Sheet
SIEF Substance Information Exchange Forum
STEL Short Term Exposure Limit
STOT (RE) Specific Target Organ Toxicity – repeated exposure
STOT (SE) Specific Target Organ Toxicity – single exposure
SVHC Substance of Very High Concern
VOC Volatile Organic Compounds
vPvB Very Persistent and Very Bioaccumulative
WEL Workplace Exposure Limits