

SAFETY DATA SHEET

Malachite Green Oxalate, C.I. 42000

Version 2 · issued 3 September 2026

1. IDENTIFICATION

Product Identifiers

Product Name	Malachite Green Oxalate, C.I. 42000
Other Names	Malachite Green Oxalate, Malachite Green oxalate salt, Basic Green 4 oxalate, MG oxalate, Victoria Green B oxalate, Aniline Green oxalate
Product Number(s)	C082, C082-BULK, C0821, C0825, CMZM9015A, CMZM9015B, M9015-100G, M9015-25G
CAS Number	2437-29-8

Recommended use of the chemical and restriction on use

Laboratory staining: Histology/cytology, Microbiology

Company Details

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute toxicity, Oral (Category 3), H301
Serious eye damage/eye irritation (Category 1), H318
Reproductive toxicity (Category 2), H361
Short-term (acute) aquatic hazard (Category 1), H400
Long-term (chronic) aquatic hazard (Category 1), H410

Label Elements

Corrosive • Acute toxicity • Health hazard • Hazardous to the environment

Signal Words Danger

Hazard Statement(s)
H301 Toxic if swallowed.
H318 Causes serious eye damage.
H361 Suspected of damaging fertility or the unborn child.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statement(s)**Prevention**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and P264 Wash skin thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.

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 CENTER/ doctor.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P391 Collect spillage.

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

Primary route(s) of entry

Inhalation — particularly as dust, powder, or aerosol.

Skin absorption/contact can also occur, especially with prolonged or repeated exposure.

Ingestion is possible through accidental hand-to-mouth transfer or contaminated food/drink

Human Health**Inhalation**

Harmful by inhalation.

Ingestion

Harmful if swallowed.

Eyes

Risk of serious damage to eyes.

Skin

Harmful in contact with skin.

Environment

No further relevant information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Name	CAS No.	Content (w/w)	Classification
Bis[[4-[4-(Dimethylamino)phenyl]benzylidene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium oxala	2437-29-8	100%	Acute Tox. 3; Eye Dam./Irrit. 1; Repr. 2; Aquatic Acute 1; Aquatic Chronic 1; H301, H318, H361, H400, H410 M-Factor - Aquatic Acute: 1 - Aquatic Chronic: 1

4. FIRST AID MEASURES**Ingestion**

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately.

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.

Inhalation

After inhalation: fresh air. Call in physician.

Skin Contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

Eye Contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

Other Information

Show this material safety data sheet to the doctor in attendance.

5. FIREFIGHTING MEASURES**Suitable extinguishing equipment****Fire**Suitable extinguishing media: Water Foam Carbon dioxide (CO2) Dry powder
Unsuitable extinguishing media: For this substance/mixture no limitations of extinguishing agents are given.**HAZCHEM**

Not available.

Special protective equipment and precautions for fire fighters

Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NOx)

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

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.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and clean up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area.

Avoid generation of dusts.

7. HANDLING AND STORAGE

Precautions for safe handling

Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling.

Conditions for safe storage

Storage conditions

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage class

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards

Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³
Malachite Green	-	-	-	-

Engineering controls

Facilities storing or utilising this material should be equipped with an eyewash facility and safety shower. Use adequate ventilation to keep airborne concentrations low. A local exhaust system which captures the contaminant at its source is recommended to prevent dispersion of the contaminant into the workroom air. Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

Personal protective equipment

Eye and face protection

Use chemical safety goggles. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area. 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

Wear protective gloves. 0.11mm thick nitrile.

Body protection

Wear a clean body-covering clothing.

Respiratory protection

For conditions of use where exposure to the dust is apparent, a dust/mist respirator may be worn. For emergencies, a self-contained breathing apparatus may be necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Appearance

Green metallic crystalline powder

Odour

Odourless

pH

Not available.

Vapour Pressure

Not available.

Density

Not available.

Boiling Point	Not available.
Melting Point	144-150°C (291-302°F)
Solubility	Not available.
Specific Gravity of Density	Not available.
Flash Point	Not available.
Flammable (Explosive) Limits	Not available.
Ignition Temperature	Not available.
Formula	C23H25N2.C2HO4.0.5C2H2O4

10. STABILITY AND REACTIVITY

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.
Chemical stability	he product is chemically stable under standard ambient conditions (room temperature).
Possibility of hazardous reactions	Violent reactions possible with: Strong oxidizing agents.
Conditions to avoid	No further relevant information available.
Incompatible materials	No data available

11. TOXICOLOGICAL INFORMATION

Acute effects	LD50 Oral - Rat - 275 mg/kg Remarks: Behavioral:Change in motor activity (specific assay). Diarrhea Gastrointestinal:Other changes. (RTECS) Inhalation: No data available Dermal: No data available
Eye contact	No further relevant information available.
Skin contact	No further relevant information available.
Ingestion	May cause stomach irregularities, DNA damage.
Inhalation	No further relevant information available.
Chronic effects	Germ cell mutagenicity: No data available Carcinogenicity: No data available
Toxicity and irritation	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

12. ECOLOGICAL INFORMATION

Ecotoxicity	Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 0.29 mg/l - 48 h Remarks: (ECOTOX Database)
Persistence and degradability	No further relevant information available.
Bioaccumulative potential	No further relevant information available.
Other adverse effects	No further relevant information available.

13. DISPOSAL CONSIDERATIONS

General information

Waste material must be disposed of in accordance with the national and local regulations.
Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

14. TRANSPORT INFORMATION

ADG label required	
HAZCHEM	Not available.
UN Number	UN2811

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-DGR: Toxic solid, organic, n.o.s. (Malachite green oxalate)
Transport hazard class	6.1
Packing group	PG III
Environmental hazard	ADR/RID: yes IMDG Marine pollutant: yes IATA-DGR: no
Special precautions for users	No information available.
Additional information	Other regulations Hazchem Code : 2X

15. REGULATORY INFORMATION

Poisons Schedule Number	No information available.
Other Information	No further relevant information available.

16. OTHER INFORMATION

SDS preparation date	3 September 2026
Comments	Full text of H-Statements referred to under sections 2 and 3. H301 Toxic if swallowed. H318 Causes serious eye damage. H361 Suspected of damaging fertility or the unborn child. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.
References	Sigma-Aldrich (Merck) SDS: Malachite Green oxalate salt. 04/03/2024. https://www.sigmaaldrich.com/AU/en/sds/sigma/m9015?userType=anonymous

This Safety Data Sheet (SDS) has been prepared in compliance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice February 2016. It is the user's responsibility to determine the suitability of this information for adoption of necessary safety precautions. The information published in this SDS has been compiled from the publications listed in Section 16: to the best of our ability and knowledge these publications are considered accurate. We reserve the right to revise Safety Data Sheets as new information becomes available. Copies may be made for non-profit use.

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