



Material Safety Data Sheet

NFPA 	HMIS <table border="1" style="margin: auto;"> <tr> <td style="background-color: #00FFFF;">Health Hazard</td> <td style="text-align: center; border: 1px solid black;">2</td> </tr> <tr> <td style="background-color: #FFCCCC;">Fire Hazard</td> <td style="text-align: center; border: 1px solid black;">1</td> </tr> <tr> <td style="background-color: #FFFF00;">Reactivity</td> <td style="text-align: center; border: 1px solid black;">0</td> </tr> </table>	Health Hazard	2	Fire Hazard	1	Reactivity	0	Personal Protective Equipment  See Section 15.
Health Hazard	2							
Fire Hazard	1							
Reactivity	0							

Section 1. Chemical Product and Company Identification		Page Number: 1
Common Name/Trade Name	Malachite green oxalate	
	Catalog Number(s)	MA145
	CAS#	2437-29-8
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	
	RTECS	BQ1190000
	TSCA	TSCA 8(b) inventory: No products were found.
Commercial Name(s)	Basic Green 4, Basic Green Light Green N	
	CI#	42000
Synonym	Malachite Green Oxalate	
Chemical Name	Bis[[4-[4-(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium]oxalate, dioxalate	
Chemical Family	Not available.	
Chemical Formula	C48-H50-N4-O4.2H2-C2-O4	
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	
<u>IN CASE OF EMERGENCY</u> <u>CHEMTREC (24hr) 800-424-9300</u> CALL (310) 516-8000		

Section 2. Composition and Information on Ingredients					
Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Malachite green oxalate	2437-29-8				100
Toxicological Data on Ingredients	Malachite green oxalate: ORAL (LD50): Acute: 275 mg/kg [Rat]. DERMAL (LD50): Acute: >2000 mg/kg [Rabbit].				

Section 3. Hazards Identification	
Potential Acute Health Effects	Very hazardous in case of eye contact (irritant). Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Inflammation of the eye is characterized by redness, watering, and itching.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Serious Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	May be combustible at high temperature.
Auto-Ignition Temperature	Not available.
Flash Points	Not available.
Flammable Limits	Not available.
Products of Combustion	These products are carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂ ...).
Fire Hazards in Presence of Various Substances	Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Special Remarks on Fire Hazards	Material in powder form, capable of creating a dust explosion.
Special Remarks on Explosion Hazards	Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Section 6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large Spill	Use a shovel to put the material into a convenient waste disposal container.

Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance	Solid. (Lustrous, crystalline solid plates.)	Odor	Odorless.
Molecular Weight	927.03 g/mole	Taste	Not available.
pH (1% soln/water)	Not available.	Color	Green. (Dark.)
Boiling Point	Not available.		
Melting Point	Decomposition temperature: 164°C (327.2°F)		
Critical Temperature	Not available.		
Specific Gravity	Not available.		
Vapor Pressure	Not applicable.		
Vapor Density	Not available.		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water.		
Solubility	Soluble in cold water.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Excess heat, dust generation, incompatible materials
Incompatibility with various substances	Reactive with oxidizing agents.
Corrosivity	Non-corrosive in presence of glass.
Special Remarks on Reactivity	Not available.
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 275 mg/kg [Rat]. Acute dermal toxicity (LD50): >2000 mg/kg [Rabbit].
Chronic Effects on Humans	MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals	Lowest Published Lethal Dose: LDL [Mouse] - Route: Oral; Dose: 50 mg/kg
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Causes skin irritation. Eyes: Causes severe eye irritation. This product contains a cationic dye. Similar dyes have caused permanent injury to the cornea and conjunctiva. May cause chemical conjunctivitis. Inhalation: May cause respiratory tract irritation. Ingestion: May be harmful if swallowed. May cause gastrointestinal tract irritation with nausea, vomiting, hypermotility, and diarrhea. May affect behavior (change in motor activity). Chronic Potential Health Effects: Inhalation: May cause delayed pulmonary edema. Skin: Prolonged or repeated contact may cause dermatitis.


Section 12. Ecological Information

Ecotoxicity	Ecotoxicity in water (LC50): 0.73 mg/l 24 hours [Daphnia (daphnia magna)]. 0.14 mg/l 24 hours [Fish (Ictalurus punctatus (channel catfish))]. 0.14 mg/l 48 hours [Fish (Ictalurus punctatus (channel catfish))]. 0.14 mg/l 72 hours [Fish (Ictalurus punctatus (channel catfish))].
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
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Section 14. Transport Information

DOT Classification	CLASS 6.1: Poisonous material.
Identification	UNNA: 2811 : Toxic solids, organic, n.o.s. (Malachite Green Oxalate) PG: III
Special Provisions for Transport	Not applicable.
DOT (Pictograms)	

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations

No products were found.

California Proposition 65 Warnings

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.
 California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
 EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 219-441-7).
 Canada: Listed on Canadian Domestic Substance List (DSL).
 China: Listed on National Inventory.
 Japan: Listed on National Inventory (ENCS).
 Korea: Listed on National Inventory (KECI).
 Philippines: Listed on National Inventory (PICCS).
 Australia: Listed on AICS.

Other Classifications

WHMIS (Canada) CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).
DSCL (EEC)
 R22- Harmful if swallowed.
 R41- Risk of serious damage to eyes.
 R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R63- Possible risk of harm to the unborn child.
 S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
 S46- If swallowed, seek medical advice immediately and show this container or label.
 S60- This material and its container must be disposed of as hazardous waste.
 S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	1
Reactivity	0
Personal Protection	E

National Fire Protection Association (U.S.A.)

Health  Flammability
 Reactivity
 Specific hazard

WHMIS (Canada) (Pictograms)



DSCL (Europe) (Pictograms)



TDG (Canada) (Pictograms)



ADR (Europe) (Pictograms)



Protective Equipment

 Gloves.



Lab coat.



Dust respirator. Be sure to use an approved/certified respirator or equivalent.



Splash goggles.

Section 16. Other Information

MSDS Code M3240

References Not available.

Other Special Considerations Not available.

Validated by Sonia Owen on 7/10/2012.

Verified by Sonia Owen.

Printed 7/10/2012.

CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.