



Issuing Date 31-Aug-2009

Revision Date 08-Sep-2011

Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

Product Name Malachite Green
Product Code(s) 0186
Recommended Use For Further Manufacturing Use Only
Not for Human or Animal Drug Use
Recommended Use Bacterial stain also used as counterstain in plant pathology
Synonyms MALACHITE GREEN OXALATE *
Company
AMRESKO, LLC
6681 Cochran Road
Solon, Ohio 44139
Emergency Telephone Number Chemtrec 1-800-424-9300
Company Phone Number 1-800-448-4442
E-mail Address info@amresco-inc.com

2. HAZARDS IDENTIFICATION

GHS - Classification

Classification Acute Toxicity Oral 3 Toxic to Reproduction 2 Serious Eye Damage/Irritation 1
Skin Irritant 2 Aquatic Hazard (acute) 1

Signal Word Danger



Hazard Statements H301 - Toxic if swallowed H361 - Suspected of damaging fertility or the unborn child H318 - Causes serious eye damage H315 - Causes skin irritation H335 - May cause respiratory irritation H400 - Very toxic to aquatic life

Precautionary Statements

P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P304 + P340 - IF
INHALED: Remove victim to fresh air and keep at rest in a position comfortable for
breathing P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for
several minutes. Remove contact lenses, if present and easy to do. Continue
rinsing P308 + P313 - IF exposed or concerned: Get medical attention/advice
P273 - Avoid release to the environment

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	EC No.	REACH Reg. No.	CAS-No	Weight %	Classification
Ammonium, (4-(p-(dimethylamino)-.alpha.- phenylbenzylidene)-2,5-cyclohexadien-1-ylidene)- dimethyl-, oxalate (2:1), oxalate (1:1)	EEC No. 219-441-7	Not available	2437-29-8	95-100	Xn; R22 Xi; R41 N; R50-53 Repr.Cat.3; R63

4. FIRST AID MEASURES

Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

Inhalation

Move to fresh air. If breathing becomes difficult, give oxygen.

Ingestion

Clean mouth with water and afterwards drink plenty of water. Consult a physician.

Notes to Physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties

Not flammable.

Flash Point

Not determined

Suitable Extinguishing Media

Dry chemical, CO2, water spray or regular foam.

Hazardous Combustion Products

Carbon oxides, Nitrogen oxides (NOx).

Explosion Data

Sensitivity to Mechanical Impact

Not sensitive.

Sensitivity to Static Discharge

Not sensitive.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation.

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Cleaning Up	Avoid dust formation. Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

Handling	Handle in accordance with good industrial hygiene and safety practice.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place.
Incompatible Products	Strong oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures	Showers Eyewash stations Ventilation systems.
Personal Protective Equipment	
Eye/Face Protection	Tightly fitting safety goggles.
Skin and Body Protection	Wear protective gloves/clothing.
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Dark green
Odor	No information available
Odor Threshold	No information available
Decomposition Temperature °C	No information available
Freezing Point	No information available
Initial Boiling Point	No information available
Physical State	Crystalline Powder
pH	No data available
Flash Point	Not determined
Autoignition Temperature	No data available
Boiling Point/Range	No data available
Melting Point/Range	144-150 °C
Flammability Limits in Air	Upper No data available Lower No data available
Explosive Properties	No information available
Oxidizing Properties	No information available
Evaporation Rate	No data available
MMHG @ 37.8 C	No data available
Vapor Density	No data available
Specific Gravity	No data available
Solubility	No information available
Partition Coefficient (n-octanol/water)	No data available
Viscosity	No information available

10. STABILITY AND REACTIVITY

- Stability** Stable under recommended storage conditions.
- Incompatible Products** Strong oxidizing agents.
- Conditions to Avoid** None known based on information supplied.
- Hazardous Decomposition Products** Carbon oxides. Nitrogen oxides (NOx).
- Hazardous Polymerization** Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

- Product Information** Toxic if swallowed. Risk of serious damage to eyes. Causes skin irritation. Material may be irritating to mucous membranes and upper respiratory tract.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium, (4-(p-(dimethylamino)-.alpha.-phenylbenzylidene)-2,5-cyclohexadien-1-ylidene)- dimethyl-, oxalate (2:1), oxalate (1:1)	275 mg/kg (Rat)		

Chronic Toxicity

- Chronic Toxicity** Contains a known or suspected reproductive toxin.
- Target Organ Effects** None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

13. DISPOSAL CONSIDERATIONS

- Waste Disposal Method** Dispose of material in accordance with all federal, state, and local regulations.
- Contaminated Packaging** Dispose of in accordance with all federal, state and local regulations.

14. TRANSPORT INFORMATION

IATA

UN-No 2811
Proper Shipping Name TOXIC SOLID, ORGANIC, N.O.S. (CONTAINING MALACHITE GREEN OXALATE)
Hazard Class 6.1
Packing Group III

DOT

Proper Shipping Name TOXIC SOLID, ORGANIC, N.O.S. (CONTAINING MALACHITE GREEN OXALATE)
Hazard Class 6.1
UN-No 2811
Packing Group III

15. REGULATORY INFORMATION

REACH Title VII Restrictions No information available.

Chemical Name	Dangerous Substances	Organic Solvents	Harmful Substances Whose Names Are to be Indicated on the Label	Pollution Release and Transfer Registry (Class II):	Pollution Release and Transfer Registry (Class I):	Poison and Deleterious Substances Control Law:
Ammonium, (4-(p-(dimethylamino)-alpha-phenylbenzylidene)-2,5-cyclohexadien-1-ylidene)- dimethyl-, oxalate (2:1), oxalate (1:1)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Component	ISHA - Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying	ISHA - Harmful Substances Requiring Permission	Toxic Chemical Classification Listing (TCCL) - Toxic Chemicals	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II	
Ammonium, (4-(p-(dimethylamino)-alpha-phenylbenzylidene)-2,5-cyclohexadien-1-ylidene) - dimethyl-, oxalate (2:1), oxalate (1:1) 2437-29-8 (95-100)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

International Inventories

TSCA	Does not Comply
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Does not Comply
PICCS	Complies
AICS	Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

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

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

CERCLA

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

International Regulations

Mexico - Grade No information available.

Canada

WHMIS Hazard Class

D1B Toxic materials
D2A Very toxic materials
E Corrosive material





16. OTHER INFORMATION

Issuing Date 31-Aug-2009

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Revision Note
No information available

Recommended Restrictions No information available

Disclaimer

The information provided on this MSDS 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 MSDS