

# Malachite Green: sc-211766



## MATERIAL SAFETY DATA SHEET

The Power to Question

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Malachite Green

**Product Number:** sc-211766

**Supplier:** Santa Cruz Biotechnology, Inc.  
2145 Delaware Avenue  
Santa Cruz, CA 95060  
800.457.3801 or 831.457.3800

**Emergency:** ChemWatch  
Within the US & Canada: 877-715-9305  
Outside the US & Canada: +800 2436 2255 (1-800-CHEMCALL) or call +613 9573 3112

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms:** Malachite Green; Basic Green 4; N,N,N',N'-Tetramethyl-4,4'-diaminotriphenylcarbenium chloride

**Formula:** C<sub>23</sub>H<sub>25</sub>ClN<sub>2</sub>

**Molecular Weight:** 364.91 g/mol

<u>CAS-No.</u>	<u>EC-No.</u>	<u>Index-No.</u>	<u>Concentration</u>
[4-[ $\alpha$ -[4-(Dimethylamino)phenyl]benzylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride 569-64-2	209-322-8	602-096-00-5	-

### 3. HAZARDS IDENTIFICATION

**Emergency Overview**

**OSHA Hazards**

Target Organ Effect, Toxic by ingestion, Irritant

**Target Organs**

Kidney

**HMIS Classification**

**Health Hazard:** 2

**Chronic Health Hazard:** \*

**Flammability:** 0

**Physical hazards:** 0

**NFPA Rating**

**Health Hazard:** 2

**Fire:** 0

**Reactivity Hazard:** 0

**Potential Health Effects**

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.

**Skin** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes** Causes eye irritation.

**Ingestion** Toxic if swallowed.

### 4. FIRST AID MEASURES

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

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

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## 5. FIRE-FIGHTING MEASURES

### Flammable properties

Flash point no data available

Ignition temperature no data available

### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### Methods for cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

### Handling

Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Normal measures for preventive fire protection.

### Storage

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves.

#### Eye protection

Face shield and safety glasses

#### Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	crystalline	pH	no data available
Melting point	no data available	Boiling point	no data available
Flash point	no data available	Ignition temperature	no data available
Lower explosion limit	no data available	Upper explosion limit	no data available
Partition coefficient: available:octanol/water	log Pow: 0.062	Water solubility	no data
log Pow: 0.062			

## 10. STABILITY AND REACTIVITY

### Storage stability

Stable under recommended storage conditions.

### Materials to avoid

Strong oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions - Carbon oxides, nitrogen oxides (NOx),

Hydrogen chloride gas

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

LD50 Oral - mouse - 80 mg/kg

### Irritation and corrosion

no data available

**Sensitisation**

no data available

**Chronic exposure**

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Genotoxicity in vitro - Mammal - Lymphocyte  
DNA damage

Genotoxicity in vitro - Hamster - Embryo  
DNA damage

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Potential Health Effects**

- Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.
- Skin** May be harmful if absorbed through skin. Causes skin irritation.
- Eyes** Causes eye irritation.
- Ingestion** Toxic if swallowed.

**Target Organs**

Kidney

**Additional Information**

RTECS: BQ1180000

**12. ECOLOGICAL INFORMATION****Elimination information (persistence and degradability)**

no data available

**Ecotoxicity effects**

Toxicity to fish LC50 - *Lepomis macrochirus* - 0.0218 mg/l - 96 h

**Further information on ecology**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**13. DISPOSAL CONSIDERATIONS****Product**

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

**14. TRANSPORT INFORMATION****DOT (US)**

UN-Number: 3077 Class: 9 Packing group: III

Proper shipping name: Toxic solids, organic, n.o.s. ([4-[ $\alpha$ -[4-(Dimethylamino)phenyl]benzylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride)

Marine pollutant: No

Poison Inhalation Hazard: No

**IMDG**

UN-Number: 3077 Class: 9 Packing group: III EMS-No: F-A, S-A

Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. ([4-[ $\alpha$ -[4-(Dimethylamino)phenyl]benzylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride)

Marine pollutant: No

**IATA**

UN-Number: 3077 Class: 9 Packing group: III

Proper shipping name: Toxic solid, organic n.o.s. ([4-[ $\alpha$ -[4-(Dimethylamino)phenyl]benzylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride)

**15. REGULATORY INFORMATION****OSHA Hazards**

Target Organ Effect, Toxic by ingestion, Irritant

**DSL Status**

All components of this product are on the Canadian DSL list.

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

[4-[ $\alpha$ -[4-(Dimethylamino)phenyl]benzylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride CAS-No. 569-64-2

**SARA 311/312 Hazards**

Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

[4-[ $\alpha$ -[4-(Dimethylamino)phenyl]benzylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride CAS-No. 569-64-2

**Pennsylvania Right To Know Components**

[4-[ $\alpha$ -[4-(Dimethylamino)phenyl]benzylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride CAS-No. 569-64-2

**New Jersey Right To Know Components**

[4-[ $\alpha$ -[4-(Dimethylamino)phenyl]benzylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride CAS-No. 569-64-2

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

**16. OTHER INFORMATION**

*The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.*

12/31/2012