



**Pictograms****Hazard Statements**

Causes serious eye damage.  
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 May cause an allergic skin reaction.  
 Suspected of damaging fertility or the unborn child.  
 Suspected of causing cancer.

**Precautionary Statements****Prevention:**

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Avoid breathing dust/fume/gas/mist/vapors/spray.  
 In case of inadequate ventilation wear respiratory protection.  
 Wear protective gloves and eye/face protection.  
 Contaminated work clothing must not be allowed out of the workplace.

**Response:**

IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.  
 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.  
 IF ON SKIN: Wash with plenty of soap and water.  
 Immediately call a POISON CENTER or doctor/physician.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 Wash contaminated clothing before reuse.

**Storage:**

Store locked up.

**Disposal:**

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

**SECTION 3: Composition/information on ingredients**

Ingredient	C.A.S. No.	% by Wt
Selective Components	132-92-3	80 - 100 Trade Secret *
Malachite Green Oxalate	2437-29-8	< 10 Trade Secret *
Cefsulodin sodium	52152-93-9	1 - 3 Trade Secret *
Nalidixate Sodium	3374-05-8	1 - 3 Trade Secret *
Novobiocin sodium	1476-53-5	1 - 3 Trade Secret *
Streptomycin sulfate	3810-74-0	1 - 3 Trade Secret *

\*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Inhalation:**

Remove person to fresh air. If you feel unwell, get medical attention.

**Skin Contact:**

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

**Eye Contact:**

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

**If Swallowed:**

Rinse mouth. If you feel unwell, get medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Allergic respiratory reaction (difficulty breathing, wheezing, cough, and tightness of chest). Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision).

### 4.3. Indication of any immediate medical attention and special treatment required

Not applicable

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

### 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

### Hazardous Decomposition or By-Products

**Substance**

Carbon dioxide  
Oxides of Nitrogen  
Oxides of Sulfur

**Condition**

During Combustion  
During Combustion  
During Combustion

### 5.3. Special protective actions for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Use wet sweeping compound or water to avoid dusting. Sweep up.

Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Use personal protective equipment (gloves, respirators, etc.) as required.

### 7.2. Conditions for safe storage including any incompatibilities

Store away from acids.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

### 8.2. Exposure controls

#### 8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

#### 8.2.2. Personal protective equipment (PPE)

##### Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Full Face Shield

Indirect Vented Goggles

##### Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended: Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

##### Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

Physical state	Solid
Color	Off-White

#### Specific Physical Form:

Odor	Powder
Odor threshold	Peptone
pH	<i>No Data Available</i>
Melting point	<i>Not Applicable</i>
Boiling Point	<i>No Data Available</i>
Flash Point	<i>Not Applicable</i>
Evaporation rate	Flash point > 93 °C (200 °F)
Flammability (solid, gas)	<i>Not Applicable</i>
Flammable Limits(LEL)	Not Classified
Flammable Limits(UEL)	<i>Not Applicable</i>
Vapor Pressure	<i>Not Applicable</i>
Vapor Density	<i>Not Applicable</i>
Density	<i>No Data Available</i>
Specific Gravity	<i>No Data Available</i>
Solubility in Water	Complete
Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Autoignition temperature	<i>Not Applicable</i>
Decomposition temperature	<i>No Data Available</i>
Viscosity	<i>Not Applicable</i>
Molecular weight	<i>Not Applicable</i>
Percent volatile	<i>No Data Available</i>

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Light

### 10.5. Incompatible materials

Strong acids

### 10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

### 11.1. Information on Toxicological effects

#### Signs and Symptoms of Exposure

**Based on test data and/or information on the components, this material may produce the following health effects:**

##### **Inhalation:**

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

May cause additional health effects (see below).

##### **Skin Contact:**

Mechanical Skin irritation: Signs/symptoms may include abrasion, redness, pain, and itching.

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

May cause additional health effects (see below).

##### **Eye Contact:**

Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

##### **Ingestion:**

May be harmful if swallowed.

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

#### **Additional Health Effects:**

##### **Reproductive/Developmental Toxicity:**

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

##### **Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

##### **Toxicological Data**

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

##### **Acute Toxicity**

Name	Route	Species	Value
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Overall product	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg
Selective Components	Ingestion	Mouse	LD50 > 4,000 mg/kg
Malachite Green Oxalate	Dermal	Rat	LD50 > 2,000 mg/kg
Malachite Green Oxalate	Ingestion	Rat	LD50 275 mg/kg
Novobiocin sodium	Ingestion	Rat	LD50 3,500 mg/kg
Streptomycin sulfate	Ingestion	Rat	LD50 430 mg/kg
Nalidixate Sodium	Ingestion	Rat	LD50 2,040 mg/kg
Cefsulodin sodium	Ingestion	Rat	LD50 > 15,000 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
Malachite Green Oxalate	Multiple animal species	No significant irritation

#### Serious Eye Damage/Irritation

Name	Species	Value
Malachite Green Oxalate	Rabbit	Corrosive
Novobiocin sodium	Rabbit	Severe irritant

#### Skin Sensitization

Name	Species	Value
Malachite Green Oxalate	Guinea pig	Not classified
Novobiocin sodium	Human	Sensitizing
Streptomycin sulfate	Human	Sensitizing
Nalidixate Sodium	Human	Sensitizing
Cefsulodin sodium		Sensitizing

#### Respiratory Sensitization

Name	Species	Value
Cefsulodin sodium		Sensitizing

#### Germ Cell Mutagenicity

Name	Route	Value
Malachite Green Oxalate	In Vitro	Not mutagenic
Malachite Green Oxalate	In vivo	Not mutagenic
Nalidixate Sodium	In Vitro	Some positive data exist, but the data are not sufficient for classification

#### Carcinogenicity

Name	Route	Species	Value
Nalidixate Sodium	Ingestion	Rat	Carcinogenic

#### Reproductive Toxicity

#### Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Malachite Green Oxalate	Not Specified	Toxic to development	official classification	NOAEL Not available	
Streptomycin sulfate	Not Specified	Toxic to development	Human	NOAEL Not available	

Nalidixate Sodium	Not Specified	Not classified for reproduction and/or development	Not available	NOAEL Not available	
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### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

For the component/components, either no data are currently available or the data are not sufficient for classification.

#### Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Novobiocin sodium	Ingestion	blood   liver	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Nalidixate Sodium	Ingestion	eyes	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	

### Aspiration Hazard

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.**

## SECTION 12: Ecological information

### Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

### Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

**EPA Hazardous Waste Number (RCRA):** Not regulated

## SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

## SECTION 15: Regulatory information

## 15.1. US Federal Regulations

Contact 3M for more information.

### EPCRA 311/312 Hazard Classifications:

#### Physical Hazards

Not applicable

#### Health Hazards

Carcinogenicity

Reproductive toxicity

Respiratory or Skin Sensitization

Serious eye damage or eye irritation

**This material contains a chemical which requires export notification under TSCA Section 12[b]:**

<u>Ingredient (Category if applicable)</u>	<u>C.A.S. No</u>	<u>Regulation</u>	<u>Status</u>
Malachite Green Oxalate (Methanaminium, N-[4-[[4-(dimethylamino)phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, ethanedioate, ethanedioate (2:2:1))	2437-29-8	Toxic Substances Control Act (TSCA) 5 SNUR or Consent Order Chemicals	Applicable
Malachite Green Oxalate	2437-29-8	Toxic Substances Control Act (TSCA) 5 SNUR or Consent Order Chemicals	Applicable

**This material contains a chemical regulated by an EPA Significant New Use Rule (TSCA Section 5)**

<u>Ingredient (Category if applicable)</u>	<u>C.A.S. No</u>	<u>Reference</u>
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Malachite Green Oxalate	2437-29-8	40CFR721.10845
Malachite Green Oxalate (Malachite Green Oxalate)	2437-29-8	40CFR721.10845

## 15.2. State Regulations

Contact 3M for more information.

## 15.3. Chemical Inventories

Contact 3M for more information.

## 15.4. International Regulations

Contact 3M for more information.

**This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.**

## SECTION 16: Other information

### NFPA Hazard Classification

**Health:** 3 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

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