

SAFETY DATA SHEET

Preparation Date: 08/07/2015

Revision date 11/26/2019

Revision Number: G2

1. IDENTIFICATION

Product identifier

Product code: M-150
Product Name: MALACHITE GREEN TS, (U.S.P. TEST SOLUTION)

Other means of identification

Synonyms: No information available
CAS #: Mixture
RTECS # Not available
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Laboratory reagent.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Gases)	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Flammable liquids	Category 3

Label elements

Danger

Hazard statements

Harmful in contact with skin or if inhaled
 Causes severe skin burns and eye damage
 Flammable liquid and vapor



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

May be harmful if swallowed

Precautionary Statements - Prevention

Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Do not breathe mist or vapors
Wash face, hands and any exposed skin thoroughly after handling
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground container and receiving equipment
Use explosion-proof equipment
Use only non-sparking tools
Take precautionary measures against static discharge

Precautionary Statements - Response

Immediately call a POISON CENTER or physician

In case of fire: Use CO₂, dry chemical, or foam to extinguish.

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 or physician.

Call a POISON CENTER or physician if you feel unwell

Wash contaminated clothing before reuse

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. Immediately call a POISON CENTER or physician.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Acetic Acid, glacial	64-19-7	99
Malachite Green Oxalate	2437-29-8	1

4. FIRST AID MEASURES

First aid measures

- General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. First aider needs to protect himself. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Skin Contact:** Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Immediate medical attention is required. Call a physician or poison control center immediately.
- Eye Contact:** Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.
- Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

- Symptoms**
- Causes severe skin burns
 - Skin contact may result in redness, pain, inflammation, itching, scaling
 - Causes serious eye damage
 - Inflammation of the eye is characterized by redness, watering and itching
 - Moderate irritant to mucous membranes on inhalation
 - Severe irritation of the upper respiratory tract
 - Coughing
 - Choking sensation
 - Dyspnea (Shortness of breath and difficulty breathing)

Indication of any immediate medical attention and special treatment needed

- Notes to Physician:** Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use dry chemical, CO₂, water spray or "alcohol" foam.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous combustion products No information available.

Specific hazards Flammable. May be ignited by heat, sparks or flames.

Container explosion may occur under fire conditions or when heated. Slightly flammable in presence of oxidizing materials. Vapor may travel considerable distance to source of ignition and flash back. Most vapors are heavier than air. Vapors may spread along ground and collect in low or confined areas (sewers, basements, tanks). Fire may produce irritating and/or toxic gases. Reacts with metals to produce flammable hydrogen gas. It will ignite on contact with potassium-tert-butoxide. A mixture of ammonium nitrate and acetic acid ignites when warmed, especially if warmed. (Acetic acid, glacial) Acetic acid vapors may form explosive mixtures with air. Reactions between acetic acid and the following materials are potentially explosive: 5-azidotetrazole, bromine pentafluoride, chromium trioxide, hydrogen peroxide, potassium permanganate, sodium peroxide, and phosphorus trichloride. Reaction between chlorine trifluoride and acetic acid is very violent, sometimes explosive. (Acetic acid, glacial).

Special Protective Actions for Firefighters

Specific Methods:

No information available

Special Protective Equipment 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, protective equipment and emergency procedures

Personal Precautions:

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment

Stop leak if you can do it without risk. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Neutralize with Sodium carbonate or Sodium bicarbonate. Dilute with water. Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. Use clean non-sparking tools to collect absorbed material. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of

vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

Safe Handling Advice:

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Store at room temperature in the original container. Store in a segregated and approved area. Store away from incompatible materials.

Incompatible Materials:

- Oxidizing agents
- Reducing agents
- Metals
- Bases
- Acids

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Acetic Acid, glacial	64-19-7	10 ppm TWA 25 mg/m ³ TWA	10 ppm TWA 25 mg/m ³ TWA 15 ppm STEL 37 mg/m ³ STEL	15 ppm STEL 10 ppm TWA	None
Malachite Green Oxalate	2437-29-8	None	None	None	None

Canada

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Acetic Acid, glacial	64-19-7	10 ppm TWA 25 mg/m ³ TWA 15 ppm STEL 37 mg/m ³ STEL	10 ppm TWA 15 ppm STEL	15 ppm STEL	10 ppm TWA 25 mg/m ³ TWA 15 ppm STEL 37 mg/m ³ STEL
Malachite Green Oxalate	2437-29-8	None	None	None	None

Australia and Mexico

Component	CAS No	Australia	Mexico
Acetic Acid, glacial	64-19-7	15 ppm STEL 37 mg/m ³ STEL 10 ppm TWA 25 mg/m ³ TWA	10 ppm TWA 25 mg/m ³ TWA 15 ppm STEL 37 mg/m ³ STEL
Malachite Green Oxalate	2437-29-8	None	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Provide exhaust ventilation or

other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection:	Face-shield. Goggles
Skin and body protection:	Chemical resistant protective suit Gloves Boots
Respiratory protection:	Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
Hygiene measures:	Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid	Appearance: No information available.	Color: Dark green.
Odor: No information available.	Taste No information available.	Formula No information available
Molecular/Formula weight (g/mole): No information available	Flammability (solid, gas) Flammable	Flashpoint (°C/°F): 39°C/ 102.2°F 43°C/ 109.4°F
Flash Point Tested according to: Closed cup Open cup	Autoignition Temperature (°C/°F): 463°C/ 865.4°C (Acetic Acid)	Lower Explosion Limit (%): 4%
Upper Explosion Limit (%): 19.9%	Melting point/range(°C/°F): 16.6°C/ 61.9°F (Acetic Acid)	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): 118.1°C/ 244.6°F (Acetic Acid)	Bulk density: No information available	Density (g/cm3): No information available
Specific gravity: 1.0536 (Acetic Acid)	pH Acidic	Vapor pressure @ 20°C (kPa): 1.5 (Acetic Acid)
Evaporation rate: No information available	Vapor density: 2.07 (Acetic Acid)	VOC content (g/L): No information available
Odor threshold (ppm): 0.48 (Acetic Acid)	Partition coefficient (n-octanol/water): No information available	Viscosity: No information available
Miscibility: No information available	Solubility: Easily soluble in cold water Easily soluble in hot water Partially soluble in methanol Partially soluble in diethyl ether Partially soluble in n-octanol Partially soluble in acetone	

10. STABILITY AND REACTIVITY

Reactivity

Reacts violently with strong oxidizing agents, acetaldehyde, and acetic anhydride. It can react with metals, strong bases, amines, carbonates, hydroxides, phosphates, many oxides, cyanides, sulfides, chromic acid, nitric acid, hydrogen peroxide, carbonates, ammonium nitrate, ammonium thiosulfate, chlorine trifluoride, chlorosulfonic acid, perchloric acid, permanganates, xylene, oleum, potassium hydroxide, sodium hydroxide, phosphorus isocyanate, ethylenediamine, ethylene imine. Acetic acid vapors may form explosive mixtures with air. Reactions between acetic acid and the following materials are potentially explosive: 5-azidotetrazole, bromine pentafluoride, chromium trioxide, hydrogen peroxide, potassium permanganate, sodium peroxide, and phosphorus trichloride. Dilute acetic acid and dilute hydrogen can undergo an exothermic reaction if heated, forming peracetic acid which is explosive at 110 degrees C. Reaction between chlorine trifluoride and acetic acid is very violent, sometimes explosive.

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Oxidizing agents
Reducing agents
Metals
Bases
Acids

Hazardous decomposition products: No information available.

Other Information

Corrosivity: Highly corrosive in the presence of stainless steel (304)
Slightly corrosive in presence of aluminum
Non-corrosive in presence of stainless steel (316)
Moderate corrosive effect on bronze

Special Remarks on Corrosivity: No corrosion data on brass

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Skin. Ingestion. Inhalation. Eyes.

Acute Toxicity

Component Information

Acetic Acid, glacial

CAS No 64-19-7

LD50/oral/rat = 3310 mg/kg Oral LD50 Rat

LD50/oral/mouse = 3530 mg/kg

LD50/dermal/rabbit = 1060 mg/kg Dermal LD50 Rabbit

LD50/dermal/rat = No information available

LC50/inhalation/rat = 11.4 mg/L Inhalation LC50 Rat 4 h

LC50/inhalation/mouse = 5620 ppm 1 h

Other LD50 or LC50 information = No information available

Malachite Green Oxalate	
CAS No	2437-29-8

LD50/oral/rat = 275 mg/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = > 2 gm/kg
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
Value - Acute Toxicity = 3310 mg/kg

LD50/oral/mouse =
Value - Acute Tox = 3530 mg/kg

LD50/dermal/rabbit
Value - Acute Toxicity = 1060 mg/kg

LD50/dermal/rat
VALUE - Acute Tox = No information available

LC50/inhalation/rat
VALUE-Vapor = 11.4 mg/l (4-hr)
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = 5620 ppm 1 hr
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Corrosive. Severe skin irritation. Causes skin burns. Can cause burning pain, inflammation and blisters. Harmful in contact with skin. May be absorbed through the skin in harmful amounts.

Eye Contact: Severe eye irritation. Causes lacrimation. Causes conjunctivitis. Causes conjunctival irritation. Causes eye burns. Causes corneal damage. May cause blurred or foggy vision. May cause permanent injury.

Inhalation Causes severe respiratory tract irritation. May cause chemical pneumonitis, bronchitis, and pulmonary edema. Severe exposure may result in lung tissue damage and corrosion (ulceration) of the mucous membranes. Inhalation may also cause rhinitis, sneezing, coughing, oppressive feeling in the chest or chest pain, dyspnea, wheezing, tachypnea, cyanosis, salivation, nausea, giddiness, muscular weakness.

Ingestion Causes digestive (gastrointestinal) tract irritation. Causes digestive or gastrointestinal tract burns. Symptoms include burning and pain of the mouth, throat, and abdomen, coughing, ulceration, bleeding, nausea, abdominal spasms, vomiting, hematemesis, diarrhea. May cause perforation of the digestive tract. May cause permanent damage of the esophagus and digestive tract. May Also affect the liver (impaired liver function), behavior (convulsions, giddiness, muscular

weakness), and the urinary system - kidneys (Hematuria, Albuminuria, Nephrosis, acute renal failure, acute tubular necrosis). May also cause dyspnea or asphyxia. May also lead to shock, coma and death. May cause thirst.

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Chronic exposure via ingestion may cause blackening or erosion of the teeth and jaw necrosis, pharyngitis, and gastritis. It may also behavior (similar to acute ingestion), and metabolism (weight loss). Chronic exposure via inhalation may cause asthma and/or bronchitis with cough, wheezing, phlegm, and/or shortness of breath. Some researchers consider acetic acid capable of causing a syndrome known as "reactive airways dysfunction." or RADS. This syndrome resembles bronchial asthma, but differs in that exposure to small doses does not cause a reaction a few weeks after onset. It may also affect the blood (decreased leukocyte count), and urinary system (kidneys). Repeated or prolonged skin contact may cause thickening, blackening, and cracking of the skin.

Sensitization: No information available.

Mutagenic Effects: May affect genetic material
Mutagenic effects in mammalian somatic cells
Experiments with bacteria and/or yeast have shown mutagenic effects

Carcinogenic effects: Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Acetic Acid, glacial	64-19-7	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Malachite Green Oxalate	2437-29-8	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: May cause adverse reproductive effects based on animal data

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organs: Teeth. Respiratory system. Lungs. Skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Acetic Acid, glacial - 64-19-7

Fish LC50: =79mg/L (96h, Pimephales promelas) LC50: =75mg/L (96h, Lepomis macrochirus)

Crustacea EC50: =65mg/L (48h, Daphnia magna) EC50: =47mg/L (24h, Daphnia magna)

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility in soil No information available

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Acetic Acid, glacial	64-19-7	None	None	None	None
Malachite Green Oxalate	2437-29-8	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN2789

Proper Shipping Name: Acetic acid, glacial

Hazard Class 8

Subsidiary Class 3

Packing group: II

Emergency Response Guide Number 132

Marine Pollutant No data available

DOT RQ (lbs): No information available

Special Provisions A3, A7, A10, B2, IB2, T7, TP2

Symbol(s): [DOT]: (R5) - Identifies a material that is a hazardous substance that has a reportable quantity (RQ) of 5000 pounds (2270 Kilograms).

Description: UN2789, ACETIC ACID, GLACIAL, 8 (3), II

TDG (Canada)

UN-No: UN2789

Proper Shipping Name: Acetic acid, glacial

Hazard Class 8

Subsidiary Risk: (3)

Packing Group: II

Marine Pollutant No Information available

Description: UN2789, ACETIC ACID, GLACIAL, 8 (3), II

ADR

UN Number UN2789
Proper Shipping Name: Acetic acid, glacial
Transport hazard class(es) 8
Packing group II
Subsidiary Risk: 3
Description: UN2789, ACETIC ACID, GLACIAL, 8 (3), II, ENVIRONMENTALLY HAZARDOUS

IMDG

UN-No: UN2789
Proper Shipping Name: Acetic acid, glacial
Hazard Class: 8
Subsidiary Risk: 3
Packing Group: II
Marine Pollutant No information available
EMS: F-E
Description UN2789, ACETIC ACID, GLACIAL, 8 (3), II, Marine pollutant

RID

UN Number UN2789
Proper Shipping Name: Acetic acid, glacial
Transport hazard class(es) 8
Subsidiary Risk: 3
Packing group II
Description: UN2789, ACETIC ACID, GLACIAL, 8 (3), II, ENVIRONMENTALLY HAZARDOUS

ICAO (air)

UN-No: UN2789
Proper Shipping Name: Acetic acid, glacial
Hazard Class 8
Subsidiary Risk: 3
Packing Group: II
Description: UN2789, ACETIC ACID, GLACIAL, 8 (3), II

IATA

UN Number UN2789
Proper Shipping Name: Acetic acid, glacial
Transport hazard class(es) 8
Subsidiary Risk: 3
Packing group II
Precautionary Statements - Response 8F
Special Provisions No information available
Description: UN2789, ACETIC ACID, GLACIAL, 8 (3), II

15. REGULATORY INFORMATION

International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia (AICS)	EINECS-No.
Acetic Acid, glacial	64-19-7	PresentACTIV E	Present KE-00013	Present	Present (2)-688	Present	Present	Present 200-580-7
Malachite Green Oxalate	2437-29-8	PresentACTIV E	Present KE-03042	Present	Present (2)-844,(5)-20 33	Present	Present	Present 219-441-7

U.S. Regulations

Acetic Acid, glacial

Massachusetts RTK: Present

New Jersey RTK Hazardous Substance List: 0004

New Jersey - Discharge Prevention - List of Hazardous Substances: Present

Pennsylvania RTK: Environmental hazard

Pennsylvania RTK - Environmental Hazard List Present

Minnesota - Hazardous Substance List: Present

New York Release Reporting - List of Hazardous Substances:

5000 lb RQ

100 lb RQ

Louisiana Reportable Quantity List for Pollutants: 5000lbfinal RQ

2270kgfinal RQ

California Directors List of Hazardous Substances: Present

FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1005

FDA - 21 CFR - Total Food Additives 133.123, 133.124, 133.169, 133.173, 133.178, 133.179, 172.814, 173.370, 184.1005, 73.85 - List Sourced from EAFUS

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Acetic Acid, glacial	64-19-7	Not Listed	Not Listed	Not Listed	Not Listed
Malachite Green Oxalate	2437-29-8	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Acetic Acid, glacial	64-19-7	5000 lb final RQ 2270 kg final RQ	None	None	None	None
Malachite Green Oxalate	2437-29-8	None	None	None	None	None

U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Acetic Acid, glacial	64-19-7	Not Applicable	Not Applicable
Malachite Green Oxalate	2437-29-8	40 CFR 721.10845 PMN P-14-0781	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component
Acetic Acid, glacial
64-19-7 (99)

WHMIS 2015 Hazard Classification
Flammable liquids - Category 3: H226 Flammable liquid and vapour.; Corrosive to Metals - Category 1: H290 May be corrosive to metals. (potentially corrosive to metals; the supplier should be contacted for more information); Acute toxicity - Inhalation - Category 4: H332 Harmful if inhaled.; Health Hazard Not

Otherwise Classified - Category 1: Causes severe damage to the respiratory tract; Skin corrosion/irritation - Category 1: H314 Causes severe skin burns and eye damage.; Serious Eye Damage/Eye Irritation - Category 1: H318 Causes serious eye damage.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Acetic Acid, glacial	64-19-7	Present	Not Listed
Malachite Green Oxalate	2437-29-8	Present	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Acetic Acid, glacial	64-19-7	Not listed
Malachite Green Oxalate	2437-29-8	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Acetic Acid, glacial	64-19-7	Not listed
Malachite Green Oxalate	2437-29-8	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Acetic Acid, glacial	64-19-7	Flammable liquids - Flam. Liq. 3: H226 Flammable liquid and vapour.; Skin corrosion/irritation - Skin Corr. 1A: H314 Causes severe skin burns and eye damage.607-002-00-6 Skin corrosion/irritation - Skin Corr. 1A: H314 Causes severe skin burns and eye damage. (C >= 90 %); Skin corrosion/irritation - Skin Corr. 1B: H314 Causes severe skin burns and eye damage. (25 % <= C <90 %); Skin corrosion/irritation - Skin Irrit. 2: H315 Causes skin irritation. (10 % <= C <25 %); Serious Eye Damage/Eye Irritation - Eye Irrit. 2: H319 Causes serious eye irritation. (10 % <= C <25 %) 607-002-00-6
Malachite Green Oxalate	2437-29-8	Acute toxicity - Oral - Acute Tox. 4: H302 Harmful if swallowed. (Minimum classification); Serious Eye Damage/Eye Irritation - Eye Dam. 1: H318 Causes serious eye damage.; Reproductive Toxicity - Repr. 2: H361d Suspected of damaging the unborn child. (Hazard statements H360 and H361 indicate a general concern for effects on both fertility and development: May damage/Suspected of damaging fertility or the unborn child; According to the criteria, the general hazard statement can be replaced by the hazard statement indicating the specific effect of concern

		in accordance with section 1.1.2.1.2; When the other differentiation is not mentioned, this is due to evidence proving no such effect, inconclusive data or no data and the obligations in Article 4(3) shall apply for that differentiation); Hazardous to aquatic environment - acute hazard - Aquatic Acute 1: H400 Very toxic to aquatic life.; Hazardous to aquatic environment - chronic hazard - Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects.602-096-00-5
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EU - CLP (1272/2008)

R-phrase(s)

- R10 - Flammable
- R35 - Causes severe burns
- R41 - Risk of serious damage to eyes
- R63 - Possible risk of harm to the unborn child
- R20/21 - Harmful by inhalation and in contact with skin

S -phrase(s)

- S 7 - Keep container tightly closed.
- S 9 - Keep container in a well-ventilated place.
- S39 - Wear eye/face protection
- S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
- S46 - If swallowed, seek medical advice immediately and show this container or label
- S 1/2 - Keep locked up and out of the reach of children.
- S36/37 - Wear suitable protective clothing and gloves

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
Acetic Acid, glacial	64-19-7	R10 C; R35	10%≤C<25% Xi; R36/38 90%≤C C; R35 25%≤C<90% C; R34	S1/2 S23 S26 S45
Malachite Green Oxalate	2437-29-8	Xn; R22 Xi; R41 N; R50-53 Repr.Cat.3; R63	No information	S: (2)-26-36/37-39-46-60-61

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

- Flammable
- C - Corrosive
- Xn - Harmful



16. OTHER INFORMATION

Preparation Date: 08/07/2015
Revision date 11/26/2019
Prepared by: Sonia Owen

Disclaimer: All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) 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 SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. 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 SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet