

QualiChem, Inc.
Material Safety Data Sheet
Isothiazolin

***** Section 1 - Chemical Product and Company Identification *****

Product Use:

Manufacturer Information

QualiChem Technologies
885 Woodstock Rd
Roswell, GA 30075

For emergencies: Call Chem-Tel (800) 255-3924 (USA)
001-813-248-0585 (Outside USA)

www.QualiChemTech.com

***** Section 2 - Composition / Information on Ingredients *****

CAS #	Component
26172-55-4	5-Chloro-2-methyl-4-isothiazolin-3-one
2682-20-4	2-Methyl-4-isothiazolin-3-one
10377-60-3	Magnesium Nitrate

This product is a hazardous chemical under 29CFR 1910.1200 (Hazard Communication Standard), and is categorized as an immediate and delayed health hazard.

This product contains 1.8% magnesium nitrate as nitrate compound which is listed in SARA III, Section 313 at or above de minimus concentrations.

***** Section 3 - Hazards Identification *****

Emergency Overview – Material is a strong irritant to skin and eyes. Avoid bodily contact. Workers should wash after each use and shower at end of work period. Material may be a skin sensitizer in susceptible individuals.

Potential Health Effects: Eyes – May cause severe irritation and corneal injury.

Potential Health Effects: Skin – May cause severe irritation. Skin irritation effects can be delayed for hours. Material is a skin sensitizer even at low concentration in susceptible individuals.

Potential Health Effects: Ingestion – May cause irritation and/or burns of the mucous membranes.

Potential Health Effects: Inhalation – May cause severe irritation to the mucous membranes, nose and throat.

Medical Conditions Aggravated by Exposure

HMIS Ratings: Health: 3* Fire: 0 Reactivity: 0 Pers. Prot.: X: Consult your supervisor or S.O. P. for "special" handling directions.

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

***** Section 4 - First Aid Measures *****

First Aid: Eyes

Immediately flush eyes gently with water for at least 15 minutes. Washing eyes within one minute is essential to achieve maximum effectiveness. Immediately seek medical attention.

First Aid: Skin

Immediately flush exposed area with large amounts of water. Remove contaminated clothing and wash before reuse. Get prompt medical attention.

First Aid: Ingestion

Do not induce vomiting. Give large quantities of milk, egg white or gelatin solution. If unavailable, give large quantity of water. Avoid alcohol. Never give anything by mouth to an unconscious person. Get immediate medical attention.

First Aid: Inhalation

Remove affected person immediately to fresh air. If breathing is difficult, administer oxygen and seek immediate medical attention.

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***** Section 5 - Fire Fighting Measures *****

Flash Point: None

Upper Flammable Limit (UFL): NA

Auto Ignition: NA

Rate of Burning: NA

Hazardous Combustion Products

During a fire, irritating and/or toxic gases and aerosols from the decomposition/combustion products may be present. Do not allow solution to evaporate to dryness; dry nitrates in combination with organic material can be explosive.

Extinguishing Media

Use water spray to cool fire exposed containers.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing and use self-contained breathing apparatus.

NFPA Ratings: Health: 3 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Method Used: NA

Lower Flammable Limit (LFL): NA

Flammability Classification: Non-Flammable

***** Section 6 - Accidental Release Measures *****

Containment Procedures

Contain and recover spilled liquid when possible.

Clean-Up Procedures

Deactivate spilled material with decontamination solution (13% calcium hypochlorite (HTH:65% active), 10% sodium hydroxide (50%) and 77% water). Collect decontaminated material with an inert absorbent such as sand, sawdust or vermiculite. Scoop up and place in an appropriately marked container for proper disposal. Keep spill out of municipal sewers and open bodies of water. Wear recommended protective clothing and equipment.

Evacuation Procedures

Ventilate area of leak or spill. Keep unnecessary and unprotected people away.

Special Procedures

Regulations vary. All waste material should be packaged, labeled, transported, and disposed of in accordance with federal and local regulations. Consult local authorities before disposal.

***** Section 7 - Handling and Storage *****

Handling Procedures

Material is a strong irritant to skin and eyes. Avoid bodily contact. Workers should wash after each use and shower at end of work period. Material may be a skin sensitizer in susceptible individuals.

Storage Procedures

Protect containers from extreme temperature conditions.

***** Section 8 - Exposure Controls / Personal Protection *****

A: Component Exposure Limits

5-Chloro-2-methyl-4-isothiazolin-3-one (CAS No. 26172-55-4)

Manufacturer's recommendation: TWA = 0.076 mg/m³ STEL = 0.23 mg/m³

2-Methyl-4-isothiazolin-3-one (CAS No. 2682-20-4)

Manufacturer's recommendation: TWA = 1.5 mg/m³ STEL = 4.5 mg/m³

Engineering Controls

Normal room ventilation is usually adequate. If necessary, use appropriate local exhaust ventilation to keep exposures below the regulated limits.

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PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear face shield or splash goggles. Eye wash fountain and emergency shower facilities in work area.

Personal Protective Equipment: Skin

Use impervious gloves, boots, and coveralls or apron.

Personal Protective Equipment: Respiratory

Under normal conditions of use, inhalation of product is unlikely. Wear OSHA/NIOSH approved respirator if aerosol or mist is encountered.

Personal Protective Equipment: General

Use good hygiene practices when handling this material including changing and laundering work clothes after use. A safety shower should be available. An eyewash fountain should be available in the work area.

***** Section 9 - Physical & Chemical Properties *****

Appearance:	Light Green	Odor:	Mild, inoffensive
Physical State:	Liquid	pH:	2.0 to 4.0
Vapor Pressure:	Like water	Vapor Density:	Like water
Boiling Point:	212 °F (100 °C)	Evaporation Rate:	< 1
Solubility (H2O):	Complete	Specific Gravity:	1.02 – 1.05

***** Section 10 - Chemical Stability & Reactivity Information *****

Chemical Stability

Stable under ordinary conditions of use and storage.

Chemical Stability: Conditions to Avoid

NA

Incompatibility

Avoid contact with oxidizing agents, reducing agents, amines and mercaptans.

Hazardous Decomposition

Thermal decomposition may yield oxides of carbon, sulfur, nitrogen and hydrogen chloride gas.

Hazardous Polymerization

Will not occur.

***** Section 11 - Toxicological Information *****

Acute and Chronic Toxicity

A: General Product Information

Inhalation LC50 Rat: > 13.7 mg/l

Oral LD50 Rat: 3.81 g/kg

Dermal LD50 Rabbit: >5 g/kg

Chronic Toxicity Data – A 90 day dietary study in dogs of 840 ppm of isothiazolinone resulted in no mortalities or pathological findings. A 90-day dermal study in rabbits of 0.4 mg/kg/day of isothiazolinone resulted in irritation but no pathological effects. A 30-month skin painting study with mice using 400 ppm isothiazolinone three times per week showed no increased tumor frequency over control. A teratology study with rabbits and rats was negative using dosages of 1.5 to 15 mg/kg isothiazolinone. Mutagenicity results have been equivocal.

Other Toxicological Information

May cause sensitization by skin contact. A guinea pig (Buehler technique) sensitization study with an induction dosage of 90 ppm of isothiazolinone followed by an insult of 429 ppm of isothiazolinone was positive.

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***** Section 12 - Ecological Information *****

Ecotoxicity

General Product Information

Aquatic Toxicity

Component #1 (CAS No.)

Test & Species

	Conditions
6 D LC50 rainbow trout	12.3 mg/l
96 Hr LC50 bluegill sunfish	18.7 mg/l
96 Hr LC50 goldfish	
30 min EC50 Photobacterium phosphoreum	
48 Hr LC50 Daphnia magna	~ 10.6 mg/l

Component #2 (CAS No.)

Test & Species

48 Hr LC50 bluegill

Conditions

Environmental Fate

This product and possible degradation products are not considered to be environmentally persistent or toxic.

***** Section 13 - Disposal Considerations *****

US EPA Waste Number & Descriptions

A: General Product Information

None identified.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Liquid should be considered for reuse. Absorbed material should stand for 48 hours in vented containers to avoid pressure buildup. It may be disposed of in a secured landfill in accordance with local, state and federal regulations.

***** Section 14 - Transportation Information *****

Transportation Regulations

Shipping Name: Corrosive Liquid, Acidic, Organic, N.O.S., (5-chloro-2-methyl-4-isothiazolin-3-one), 8, UN3265, II.

***** Section 15 - Regulatory Information *****

US Federal Regulations

A: General Product Information

No additional information.

State Regulations

A: General Product Information

Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	MA	MN	NJ	PA
5-Chloro-2-methyl-4-isothiazolin-3-one	26172-55-4	No	No	No	No	No
2-Methyl-4-isothiazolin-3-one	2682-20-4	No	No	No	No	No

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Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
5-Chloro-2-methyl-4-isothiazolin-3-one	26172-55-4	Yes	Yes	Yes
2-Methyl-4-isothiazolin-3-one	2682-20-4	Yes	Yes	Yes

***** Section 16 - Other Information *****

Other Information

No additional information.

MSDS History

Revision information: version 1.00, 01-APR-2004

Key/Legend

CAS = Chemical Abstracts Service; CFR = Code of Federal Regulations; DOT = Department of Transportation; DSL = Domestic Substances List; EINECS = European Inventory of Existing Commercial Chemical Substances; EPA = Environmental Protection Agency; mg/Kg = milligrams per Kilogram; mg/L = milligrams per Liter; mg/m³ = milligrams per Cubic Meter; NA = Not Applicable or Not Available; OSHA = Occupational Safety and Health Administration; STEL = Short Term Exposure Limit; TSCA = Toxic Substances Control Act.

The information provided in this MSDS is based upon sources believed to be accurate. However, QualiChem, Inc. assumes no responsibility for the accuracy, completeness, or suitability of this information. The product user is responsible to determine the suitability of this information for their particular purposes.

This is the end of MSDS