



MATERIAL SAFETY DATA SHEET

REVISION DATE: 04/19/2012
DATE PRINTED: 04/19/2012

REVISION NUMBER: 3
PREPARED BY: EH&S DEPARTMENT

1. CHEMICAL PRODUCT

PRODUCT NAME: **ML-27 Microbiocide**
PRODUCT CODE: 119143

NFPA/HMIS HAZARD CODES (minimal=0; slight=1; moderate=2; serious=3; severe=4)

Health: 3/3 Fire: 0/0
Reactivity: 0/0 Special/Protective Equipment: CORR/C

NAME OF THE MANUFACTURER: Rochester Midland Corporation
155 Paragon Drive
Rochester, New York 14624
USA
Emergency Phone:
INFOTRAC: 1-800-535-5053
OUTSIDE US: 1-352-323-3500

2. HAZARDS IDENTIFICATION

EFFECTS FROM ACUTE EXPOSURE:

INGESTION: Harmful if swallowed. May cause burns to mucous membranes of mouth, throat, and digestive tract.
SKIN CONTACT: Prolonged contact causes severe burns which may not be immediately painful or visible. Harmful if absorbed through the skin.
INHALATION: Causes irritation of the mouth, nose, and throat. Causes lung irritation.
EYE CONTACT: Corrosive. Causes permanent eye damage.
CHRONIC EFFECTS: Repeated exposure may result in sensitization dermatitis.
EFFECTS/CARCINOGENICITY: None listed under OSHA, IARC, or NTP.
ROUTES OF ENTRY: Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

PRODUCT COMPOSITION CAS#	%	ACGIH TLV	OSHA PELs
5-Chloro-2-Methyl-4-isothiazolin-3-one 26172-55-4	2 max.	Not applicable	Not applicable
2-Methyl-4-isothiazolin-3-one 2682-20-4	1 max.	Not applicable	Not applicable
Magnesium nitrate 10377-60-3	1.87	Not applicable	Not applicable
Magnesium Chloride 7786-30-3	1 - 2	Not applicable	Not applicable

4. FIRST AID MEASURES

INGESTION: DO NOT INDUCE VOMITING. Drink several glasses of water or milk. Get immediate medical attention. Never give anything by mouth to an unconscious person.
SKIN: Flush with water for at least 15 minutes while removing all contaminated clothing and shoes. Get medical attention if irritation or burns develop.
INHALATION: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

ML-27 Microbiocide

4. FIRST AID MEASURES

EYES: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

NOTES TO PHYSICIAN: None.

5. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (F): None (C): None

METHOD: None

FLAMMABLE LIMITS IN AIR

LOWER (%): No data

UPPER (%): No data

SENSITIVITY TO MECHANICAL IMPACT(Y/N): NO

SENSITIVITY TO STATIC DISCHARGE: Sensitivity to static discharge is not expected.

SUITABLE EXTINGUISHING MEDIA: As appropriate for surrounding fire-product is mostly water and will not burn.

FIRE FIGHTING PROCEDURES: Fire-fighters should wear self-contained breathing apparatus and full protective clothing when fighting chemical fires. Cool exposed containers with water spray.

6. ACCIDENTAL RELEASE MEASURES

SPILL PROCEDURES:

SMALL SPILLS: Reclaim as much as possible. This product is toxic to fish and other aquatic organisms.

LARGE SPILLS: Dike to contain. Pick up with absorbant material. Put in suitable container for disposal. Keep out of drains, sewers, streams, or other bodies of water.

PERSONAL PRECAUTIONS: Not applicable

ENVIRONMENTAL PRECAUTIONS: Not applicable

METHODS FOR CLEANING UP: Not applicable

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Caution: Avoid contact with eyes, skin and clothing. Do not breathe mist or vapors. Do not contaminate water, food, or feed.
Store in a cool, dry area.

OTHER PRECAUTIONS: Store in a well ventilated area.

SPECIFIC USE(S): Read and follow label instructions.
Not applicable.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PROTECTIVE EQUIPMENT:



EXPOSURE CONTROLS: Use in a well ventilated area.

RESPIRATORY PROTECTION: Use approved NIOSH respiratory protection if TLV/PEL exceeded or if over exposure is likely.

PROTECTIVE GLOVES: Nitrile, neoprene, or other appropriate gloves are recommended to minimize hand skin contact.

EYE PROTECTION: Goggles and face shield are recommended to minimize eye contact.

OTHER PERSONAL PROTECTION EQUIPMENT: Appropriate protective clothing as needed to prevent skin contact. Eyewash fountains and safety showers must be easily accessible. It is the responsibility of the end user of this product to determine level of PPE required that is consistent with safe use of this product.

ML-27 Microbiocide

VENTILATION: General mechanical and/or local exhaust as needed to meet exposure limits if mist in air.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:	Clear yellow-green liquid. Mild odor.	
BOILING POINT (F):	Not determined	(C) Not determined
VAPOR PRESSURE:	Not determined	
VAPOR DENSITY (AIR=1):	Not determined	
SOLUBILITY IN WATER:	Not determined	
SPECIFIC GRAVITY:	1.034	
VOC Content (%):	Not determined	
EVAPORATION RATE:	Less than BuAc	
PH:	2.0 - 4.0	

10. STABILITY AND REACTIVITY

STABILITY DATA:	STABLE
POLYMERIZATION:	Will Not Occur.
HAZARDOUS DECOMPOSITION:	When heated to high temperatures, the following may be produced: Hydrogen chloride gas. Oxides of Sulfur. Oxides of Nitrogen.
INCOMPATIBILITY (MATERIALS TO AVOID):	Avoid contact with: Oxidizing materials. Reducing agents. Amines. Mercaptans.
CONDITIONS/HAZARDS TO AVOID:	None.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:	Not Established
EFFECTS OF CHRONIC EXPOSURE:	Not established.
OTHER TOXIC EFFECTS:	Not established.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:	No data at this time
CHEMICAL FATE INFORMATION:	No data at this time.
MOBILITY:	Not applicable.
PERSISTENCE/DEGRADABILITY:	Not applicable
BIOACCUMULATIVE POTENTIAL:	Not applicable
OTHER ADVERSE EFFECTS:	Not applicable

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: Dispose in accordance with Federal, State and Local regulations.

14. TRANSPORT INFORMATION

Please refer to the Bill of Lading/Receiving documents for up to date shipping information.

15. REGULATORY INFORMATION

ML-27 Microbiocide

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PRODUCT COMPOSITION CAS#	%	TSCA:	EINECS:	Canada DSL:	CA PROP 65:
5-Chloro-2-Methyl-4-Isothiazolin-3-one 26172-55-4	2 max.	Not Listed	Listed	Not Listed	Not Listed
2-Methyl-4-Isothiazolin-3-one 2682-20-4	1 max.	Not Listed	Listed	Not Listed	Not Listed
Magnesium nitrate 10377-60-3	1.87	Listed	Listed Listed	Listed	Not Listed
Magnesium Chloride 7786-30-3	1 - 2	Not Listed	Not Listed	Not Listed	Not Listed

PRODUCT COMPOSITION CAS#	%	CERCLA:	SARA 302:	SARA 313:
5-Chloro-2-Methyl-4-Isothiazolin-3-one 26172-55-4	2 max.	Not Listed	Not Listed	Not Listed
2-Methyl-4-Isothiazolin-3-one 2682-20-4	1 max.	Not Listed	Not Listed	Not Listed
Magnesium nitrate 10377-60-3	1.87	Not Listed	Not Listed	Not Listed
Magnesium Chloride 7786-30-3	1 - 2	Not Listed	Not Listed	Not Listed

The following components of this material are included in the Massachusetts Substance List and are present at or above reportable levels.

PRODUCT COMPOSITION CAS#	%	MARTK:
Magnesium nitrate 10377-60-3	1.87	Listed

The following components of this material are included in the New Jersey Substance List and are present at or above reportable levels.

PRODUCT COMPOSITION CAS#	%	NJRTK:
Magnesium nitrate 10377-60-3	1.87	Listed

The following components of this material are included in the Pennsylvania Substance List and are present at or above reportable levels.

PRODUCT COMPOSITION CAS#	%	PARTK:
Magnesium nitrate 10377-60-3	1.87	Listed

16. OTHER INFORMATION

This information was compiled from current, reliable sources and is believed to be correct. As data, and/or regulations change, and conditions of use and handling are beyond our control, no warranty, express or implied, is made as to completeness or continuing accuracy of this information.

*** END OF MSDS ***



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March 31, 2005

AQUATIC TOXICITY

ML-27

ML-27 is an Industrial Microbiocide for use in recirculating water-cooling towers, air washer systems, paper mill slime control and recirculating closed loop water-cooling systems. The active ingredients are 5-chloro-2-methyl-4-isothiazolin-3-one.

Organism	Results (ppm as product)
Rainbow Trout, <i>Salmo gairdnerii</i>	96 Hour LC50 = 12.67 mg/L
Water flea, <i>Daphnia magna</i>	48 Hour EC50 = 10.67 mg/L