Material Safety Data Sheet: MB-215

Supercedes Date 07/15/2011 **Issuing Date** 04/16/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name MB-215
Recommended use Water treatment chemical
Information on Manufacturer
CHEM-AQUA
253 ORENDA ROAD
BRAMPTON ONT L6T 1E6

Product Code C707
Chemical nature Acidic Aqueous solution
Emergency Telephone Number
CHEMTREC® 800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview
DANGER
Corrosive
Causes skin and eye burns
May cause allergic skin reaction
May cause delayed lung injury and burns
Harmful or fatal if swallowed

Color Light green **Physical State** Liquid **Odor** organic

Potential Health Effects

Principle Route of Exposure Skin contact, Eye contact, Inhalation.

Primary Routes of Entry Inhalation, Skin Absorption.

Acute Effects

Eyes Corrosive to the eyes and may cause severe damage including blindness.

Skin Causes skin burns. May cause allergic skin reaction. May be absorbed through the skin in harmful amounts.

Inhalation Harmful by inhalation. Causes burns.

Ingestion If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Chronic Toxicity Inhaled corrosive substances can lead to a toxic edema of the lungs. May cause sensitization of susceptible persons. Contains a known or suspected carcinogen.

Target Organ Effects Immune system

Aggravated Medical Conditions Skin disorders, Respiratory disorders.

Potential Environmental Effects See Section 12 for additional Ecological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
Magnesium nitrate	10377-60-3
5-Chloro-2-methyl-4-isothiazolin-3-one	26172-55-4
2-Methyl-4-isothiazolin-3-one	2682-20-4

4. FIRST AID MEASURES

General advice Do not get in eyes, on skin or on clothing. Do not breathe mist.

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately.

Skin Contact Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.

Inhalation Move to fresh air. If not breathing, give artificial respiration. Get medical attention immediately. In case of shortness of breath, give oxygen.

Ingestion Get medical attention immediately. Never give anything by mouth to an unconscious person.

Notes to physician The product causes burns of eyes, skin and mucous membranes. Control of circulatory system, shock therapy if needed.

5. FIRE-FIGHTING MEASURES

Flash Point >201 °F / >93 °C **Method** Seta closed cup

Autoignition Temperature No information available.

Flammability Limits in Air % Hydrogen, by reaction with metals. **Upper** 75 **Lower** 4

Suitable Extinguishing Media

Water spray. Carbon dioxide (CO2). Foam. Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment.

Specific hazards arising from the chemical

Contact with metals may evolve flammable hydrogen gas. Material can create slippery conditions.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA	**Health** 3	**Flammability** 1	**Instability** 0
HMIS	**Health** 3	**Flammability** 1	**Instability** 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear protective gloves/clothing. Use personal protective equipment. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.
Environmental Precautions	Do not flush into surface water or sanitary sewer system.
Methods for Containment	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13)
Methods for Cleaning Up	Pick up and transfer to properly labeled containers.
Neutralizing Agent	Neutralize with lime milk or soda and flush with plenty of water.

7. HANDLING AND STORAGE

Handling	Do not get in eyes, on skin or on clothing. Do not breathe mist.				
Storage	Store in original container. Metal containers must be lined. Keep containers tightly closed in a dry, cool and well-ventilated place. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.				
Storage Temperature	**Minimum**	45 °F / 7 °C		**Maximum**	104 °F / 40 °C
Storage Conditions	**Indoor**	X	**Outdoor**	**Heated**	**Refrigerated**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Magnesium nitrate	No data available	No data available	No data available
5-Chloro-2-methyl-4-isothiazolin-3-one	No data available	No data available	No data available
2-Methyl-4-isothiazolin-3-one	No data available	No data available	No data available

Engineering Measures	Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment	
Eye/Face Protection	Tightly fitting safety goggles. Face-shield.
Skin Protection	Wear suitable protective clothing, Impervious gloves.
Respiratory Protection	In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
General Hygiene Considerations	Wear protective gloves/clothing. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	**Viscosity**	Non viscous
Color	Light green	**Odor**	organic
Appearance	Transparent	**pH**	2
Specific Gravity	1.02	**Evaporation Rate**	0.58 (Butyl acetate=1)
Percent Volatile (Volume)	97.7	**VOC Content (%)**	0
VOC Content (g/L)	0	**Vapor Pressure**	17 mmHg @ 70°F
Vapor Density	0.6 (Air = 1.0)	**Solubility**	Completely soluble
Boiling Point/Range	> 212 °F / 100 °C		

10. STABILITY AND REACTIVITY

Chemical Stability	Stable. Hazardous polymerization does not occur.
Conditions to Avoid	Extremes of temperature and direct sunlight
Incompatible Products	Strong oxidizing agents, Strong acids, Amines, Reducing agents.
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating gases and vapors, Carbon oxides, Nitrogen oxides (NOx), Hydrogen, by reaction with metals.
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information: No information available.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Magnesium nitrate	= 5440 mg/kg (Rat)	no data available	no data available	no data available	no data available
5-Chloro-2-methyl-4-isothiazolin-3-one	= 481 mg/kg (Rat)	no data available	= 1.23 mg/L (Rat) 4 h	no data available	no data available
2-Methyl-4-isothiazolin-3-one	no data available	no data available	no data available	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Magnesium nitrate	no data available	no data available	no data available	no data available	no data available
5-Chloro-2-methyl-4-isothiazolin-3-one	no data available	Skin sensitization	no data available	no data available	Immune system
2-Methyl-4-isothiazolin-3-one	no data available	Skin sensitization	no data available	no data available	Immune system

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA	Other
Magnesium nitrate	not applicable	Group 2A	not applicable	not applicable	not applicable
5-Chloro-2-methyl-4-isothiazolin-3-one	not applicable	not applicable	not applicable	not applicable	not applicable
2-Methyl-4-isothiazolin-3-one	not applicable	not applicable	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information: No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Magnesium nitrate	no data available	no data available	no data available	no data available	N/A
5-Chloro-2-methyl-4-isothiazolin-3-one	EC50 0.03 - 0.13 mg/L Pseudokirchneriella subcapitata 96 h EC50 0.11 - 0.16 mg/L Pseudokirchneriella subcapitata 72 h EC50 = 0.31 mg/L Anabaena flos-aquae 120 h	LC50 = 1.6 mg/L Oncorhynchus mykiss 96 h	EC50 = 5.7 mg/L 16 h	0.12 - 0.3: 48 h Daphnia magna mg/L EC50 Flow through 0.71 - 0.99: 48 h Daphnia magna mg/L EC50 Static 4.71: 48 h Daphnia magna mg/L EC50	-0.71 - 0.75
2-Methyl-4-isothiazolin-3-one	no data available	no data available	no data available	no data available	N/A

Persistence and Degradability No information available.
Bioaccumulation No information available.
Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with local regulations.
Container Disposal Empty containers should be taken for local recycling, recovery, or waste disposal. Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name Corrosive liquid, acidic, organic, n.o.s.,(Chloro-2-methyl-4-isothiazolin-3-one)
Hazard Class 8
UN-No UN3265
Packing Group II
Description UN3265,Corrosive liquid, acidic, organic, n.o.s.,(Chloro-2-methyl-4-isothiazolin-3-one),8, PG II

TDG

Proper shipping name Corrosive liquid, acidic, organic, n.o.s.,(Chloro-2-methyl-4-isothiazolin-3-one)
Hazard Class 8
UN-No UN3265
Packing Group II

Description UN3265,Corrosive liquid, acidic, organic, n.o.s.,(Chloro-2-methyl-4-isothiazolin-3-one),8, PG II

ICAO

UN-No	UN3265
Proper Shipping Name	Corrosive liquid, acidic, organic, n.o.s.,(Chloro-2-methyl-4-isothiazolin-3-one)
Hazard Class	8
Packing Group	II
Shipping Description	UN3265,Corrosive liquid, acidic, organic, n.o.s.,(Chloro-2-methyl-4-isothiazolin-3-one),8, PG II

IATA

UN-No	UN3265
Proper Shipping Name	Corrosive liquid, acidic, organic, n.o.s.,(Chloro-2-methyl-4-isothiazolin-3-one)
Hazard Class	8
Packing Group	II
ERG Code	8L
Shipping Description	UN3265,Corrosive liquid, acidic, organic, n.o.s.,(Chloro-2-methyl-4-isothiazolin-3-one),8, PG II

IMDG/IMO

Proper Shipping Name	Corrosive liquid, acidic, organic, n.o.s.,(Chloro-2-methyl-4-isothiazolin-3-one)
Hazard Class	8
UN-No	UN3265
Packing Group	II
EmS No.	F-A, S-B
Shipping Description	UN3265,Corrosive liquid, acidic, organic, n.o.s.,(Chloro-2-methyl-4-isothiazolin-3-one),8, PG II

15. REGULATORY INFORMATION

Inventories

TSCA	Complies
DSL	Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Magnesium nitrate	10377-60-3	1-5	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	No	No	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Magnesium nitrate	Not applicable	Not applicable
5-Chloro-2-methyl-4-isothiazolin-3-one	Not applicable	Not applicable
2-Methyl-4-isothiazolin-3-one	Not applicable	Not applicable

Canada

This product is exempt from WHMIS due to PCP registration

WHMIS Hazard Class

E Corrosive material

16. OTHER INFORMATION

Prepared By	Rachael Mohochi
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Reason for Revision	No information available.
Glossary	No information available.
List of References.	No information available.

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