

Safety Data Sheet

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Revision Number: Rev 5

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Description: MB-10 TABLETS SOLUTION (25 – 200 ppm)

Product ID: MB10S

Common Name: Chlorine Dioxide (25 - 200 ppm)

Chemical Name: Chemical Mixture

Formula: Chemical Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Biocide/Deodorizer

Uses advised against Not Available

1.3. Details of the supplier of the safety data sheet

Company Quip Laboratories, Inc.

1500 Eastlawn Avenue

Wilmington, DE 19802

E-mail address thidell@quiplabs.com

1.4. Emergency telephone number

For information US call: 001-302-761-2600

Emergency Number CHEMTREC Tel. No.US:001-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

No pictogram required.

Signal Word

Warning

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Based on available data, the classification criteria are not met

Health hazards

Serious Eye Damage/Eye Irritation: Category 2B

Environmental hazards

Based on available data, the classification criteria are not met

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

2.2. Label elements

Hazard Statements

H320 - Causes eye irritation

Precautionary Statements

P264 - Wash face, hands and any exposed skin thoroughly after handling

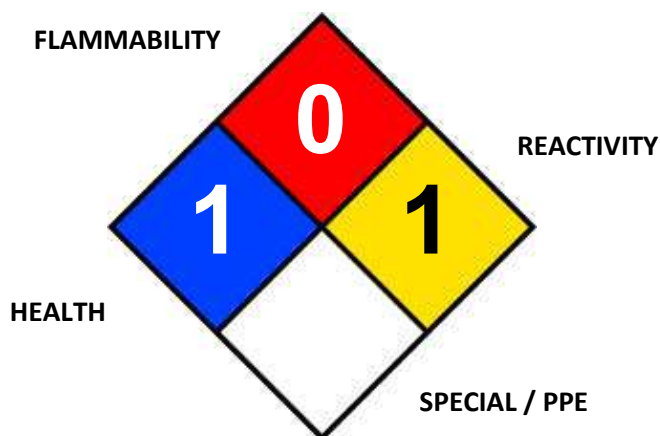
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/ attention

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB)



SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS No.
Water	To q.s.	7732-18-5
Chlorine dioxide	0.0025 – 0.020	10049-04-4

Reach Registration Number --

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists.
Skin Contact	Rinse skin with plenty of water. If irritation persists, call a doctor.
Ingestion	Drink a glassful of water. Call a poison control center or doctor immediately. DO NOT induce vomiting unless directed by a doctor.
Inhalation	Move to fresh air. If breathing is affected, call a doctor.

Protection of First-aiders Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination

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

Stinging and irritation of eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media which must not be used for safety reasons:

No information available.

5.2. Special hazards arising from the substance or mixture

No information available.

Hazardous Combustion Products:

5.3. Advice for firefighters

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

6.2. Environmental precautions

Check with local, state and federal regulations.

6.3. Methods and material for containment and cleaning up

Collect spillage and collect in suitable container for disposal.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Use in laboratory, food processing and industrial applications

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s):

Biological limit values:

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Component	STD	TWA		STEL	Notes
Chlorine dioxide (airbourne)	WEL			0.1 ppm	

WEL = Workplace Exposure Limit

Product ID: MB10S

Ingredient Comments

STEL = Short Term Exposure

TWA = Time Weighted Average

8.2. Exposure controls**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice**Engineering Measures:** Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas**Personal protective equipment****Eye Protection:** If splashes are likely to occur, wear safety glasses with side-shields.**Hand Protection:** If irritation is experienced, protective gloves should be worn.**Skin and body protection:** No special protective equipment required.**Respiratory Protection:** If irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice**Environmental exposure controls :** No information available.**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

Appearance	Pale yellow
Physical State	Liquid
Odor	Slight chlorine odor
Odor Threshold	No data available
pH (10% soln.)	5 – 7 (0.01% solution in water)
Melting Point/Range	No data available
Softening Point	No data available
Boiling Point/Range	Greater than 220°F
Flash Point	No data available
Evaporation Rate	No information available
Flammability (solid,gas)	No information available.

MB-10 Tablets Solution (25-200 ppm)

Product ID: MB10S

SAFETY DATA SHEET

Explosion Limits	No data available.
Vapor Pressure	No data available
Vapor Density	Not applicable
Specific Gravity / Density	1.00
Bulk Density	No data available
Water Solubility	Soluble
Solubility in other solvents	No information available.
Partition Coefficient (n- octanol/water)	No data available
Autoignition Temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive Properties Oxidizing Properties	No data available

9.2. Other information

Molecular Formula	Not Available
Molecular Weight	Not Available

SECTION 10: STABILITY AND REACTIVITY

10.1. Chemical stability

Stable under normal conditions.

10.2. Possibility of hazardous reactions

Hazardous Polymerization:	Hazardous polymerization does not occur.
Hazardous Reactions:	None under normal processing.

10.3. Materials to avoid

Strong reducing agents.

10.4. Incompatible materials

Strong reducing agents.

10.5. Hazardous decomposition products

None known

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

- (a) acute toxicity;
 Oral Based on available data, the classification criteria are not met
 Dermal Based on available data, the classification criteria are not met
 Inhalation Based on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
MB-10 Solution	>5000 mg/kg (Rat)		

- (b) skin corrosion/irritation; Based on available data, the classification criteria are not met
 (c) serious eye damage/irritation; Category 2B
 (d) respiratory or skin sensitization;
 Respiratory Based on available data, the classification criteria are not met
 Skin Based on available data, the classification criteria are not met
 (e) germ cell mutagenicity; Based on available data, the classification criteria are not met
 (f) carcinogenicity; Based on available data, the classification criteria are not met
 There are no known carcinogenic chemicals in this product
 (g) reproductive toxicity; Based on available data, the classification criteria are not met
 (h) STOT-single exposure; Based on available data, the classification criteria are not met
 (i) STOT-repeated exposure;
 Target Organs Based on available data, the classification criteria are not met
 (j) aspiration hazard; Not applicable Solid

Other Adverse Effects See actual entry in RTECS for complete information The toxicological properties have not been fully investigated.

Symptoms / effects, both acute and delayed No information available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects

Component	Fish	Water Flea	Freshwater Algae	Microtox
	Daphnia magna, TL50: 0.29 mg/l			

	(no effect level: 0.10 mg/l)			
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12.2. Persistence and degradability

Persistence:

Product is biodegradable
 Soluble in water, Persistence is unlikely, based on information available.

12.3. Bioaccumulative potential

Bioaccumulation is unlikely

12.4. Mobility in soil

The product is water soluble, and may spread in water Systems. Will likely be mobile in the environment due to its water solubility, although its chlorine dioxide will rapidly dissipate due to volatility and reaction with organic matter in soil.

12.5. Results of PBT and vPvB assessment

Substance is not considered persistent, bioaccumulative And toxic (PBT) / very persistent and very Bioaccumulative (vPvB).

12.6. Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

Persistent Organic Pollutant

This product does not contain any known or suspected substance

Ozone Depletion Potential

This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Federal, state and local disposal laws and regulations will determine the proper waste disposal/recycling/reclamation/treatment procedure. Disposal requirements are dependent on the hazard classification and will vary by location and the type of disposal selected. All waste materials should be reviewed to determine the applicable hazards (testing may be necessary).

SECTION 14: TRANSPORT INFORMATION

Product ID: MB10S

IMDG/IMO Not regulated

- 14.1. UN number:** Not regulated
14.2. Proper shipping name: Not regulated
14.3. Transport hazard class(es): Not regulated
14.4. Packing group: Not Applicable

ADR Not regulated

- 14.1. UN number:** Not regulated
14.2. Proper shipping name: Not regulated
14.3. Transport hazard class(es): Not regulated
14.4. Packing group: Not Applicable

IATA Not regulated

- 14.1. UN number:** Not regulated
14.2. Proper shipping name: Not regulated
14.3. Transport hazard class(es): Not regulated
14.4. Packing group: Not Applicable
- 14.5. Environmental hazards** No hazards identified
14.6. Special precautions for user No special precautions required
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

US FEDERAL REGULATIONS:

TSCA: In TSCA (Toxic Substances Control Act)

SARA 311 and 312 HAZARD CATEGORIES:

Immediate (Acute): Yes Delayed (Chronic): No Fire: No
 Reactivity: No Sudden Release of Pressure: No

SARA SECTION 313 NOTIFICATION:

MB-10 Tablets Solution (25-200 ppm)
Product ID: MB10S

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This product does not contain toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

CAA 602 OZONE DEPLETING SUBSTANCES (ODS):

This product neither contains nor is manufactured with an ozone depleting substance subject to the labeling requirements of the Clean Air Act Amendments 1990 and 40 CFR Part 82.

VOLATILE ORGANIC COMPOUNDS (VOC): Not Applicable.

US STATE REGULATIONS:

VOLATILE ORGANIC COMPOUNDS (CARB): Not Applicable.

CANADIAN REGULATIONS: N/A

DSL/NDL: N/A

WHMIS CLASSIFICATION: N/A

Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment.

Take note of Dir 94/33/EC on the protection of young people at work.

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been completed.

SECTION 16: OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R36 - Irritating to eyes

Full text of H-Statements referred to under sections 2 and 3

H319 - Causes serious eye irritation

Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

Product ID: MB10S

IECSC - China Inventory of Existing Chemical Substances

KECL - Existing and Evaluated Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japan Existing and New Chemical Substances AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Industrial Hygiene

DNEL - Derived No Effect Level

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

RPE - Respiratory Protective Equipment

LD50 - Lethal Dose 50%

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from Ships

OECD - Organisation for Economic Co-operation and Development ATE - Acute Toxicity Estimate

BCF - Bioconcentration factor

VOC - Volatile Organic Compounds

Key literature references and sources for data

Suppliers safety data sheet,

Chemadvisor - LOLI,

Merck index,

RTECS

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

MB-10 Tablets Solution (25-200 ppm)
Product ID: MB10S

SAFETY DATA SHEET

The information in this Material Safety Data Sheet should be provided to all who use, handle, transport, or otherwise are exposed to this product. This information has been prepared for the guidance of plant engineering, operations, management and persons working with or handling this product. The information presented in this MSDS is premised upon proper handling and anticipated uses, and is for the material without chemical additions/alterations. Additionally, if this Material Safety Data Sheet is more than three years old, please contact this supplier at the phone number above Section 1 to make sure this sheet is current.

PREPARED BY: T. Hidell

DATE: 6/30/2023

Supercedes: 1/21/2019

The information and recommendations contained herein are based upon data believed to be correct. No warranty, expressed or implied, is made.