

Safety Data Sheet

Issue Date: 23-February-2023

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Version 1

1. IDENTIFICATION

<u>Product identifier</u> Product Name	Marco Micro4
Other means of identification SDS #	002
UN/ID No	UN3082
Recommended use of the chemical Recommended Use	and restrictions on use For industrial use.
Details of the supplier of the safety Supplier Address MARCO NPK 201 E. Benton St. Clinton, IL 61727 Marconpk.com	<u>data sheet</u>
Emergency telephone number Company Phone Number Emergency Telephone	1-217-935-2178 INFOTRAC 1-352-323-3500 (International) 1-800-535-5053 (North America)
	2. HAZARDS IDENTIFICATION
Appearance Light pink liquid	Physical state Liquid

Odor Minimal

Classification

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (repeated exposure)	Category 2

<u>Signal Word</u> Danger

Hazard statements

Causes severe skin burns and eye damage May cause damage to organs through prolonged or repeated exposure



Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Immediately call a poison center or doctor/physician

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 doctor/physician IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Immediately call a poison center or doctor/physician

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other hazards

Toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Zinc Sulfate Monohydrate	7446-19-7	8-12
Manganese Sulfate Monohydrate	10034-96-5	8-11
Boric Acid	10043-35-3	1.5-2.0

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General Advice	Immediately call a poison center or doctor/physician.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
Skin Contact	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
Ingestion	Rinse mouth. Do NOT induce vomiting.
Most important symptoms and effe	cts, both acute and delayed
Symptoms	Causes severe skin burns and eye damage. May cause damage to organs through prolonged or repeated exposure.
Indication of any immediate medica	al attention and special treatment needed
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. **Unsuitable Extinguishing Media** Not determined.

Specific Hazards Arising from the Chemical

May react with high carbon metals to produce hydrogen gas, which can form an explosive mixture.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Caution should be exercised regarding personal safety and exposure to released product. Keep unnecessary people away, isolate hazard area and deny entry.	
Environmental precautions		
Environmental precautions	See Section 12 for additional Ecological Information.	
Methods and material for containment and cleaning up		
Methods for Containment	Flush with water into retaining area or container.	
Methods for Clean-Up	Neutralize solution with bicarbonate of soda.	
7. HANDLING AND STORAGE		

Precautions for safe handling

Advice on Safe Handling	Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing and eye/face
	protection.

Conditions for safe storage, including any incompatibilities

Storage ConditionsStore locked up. Store in a safe place away from pets and keep out of the reach of children.
Store away from excessive heat. Product will freeze. Always store product above 32
degrees F (Do Not Freeze). Freezing may cause product separation. Always keep
container closed. Keep away from galvanized pipe and any nylon storage or handling
equipment.

Incompatible Materials Strong bases. Strong reducing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Manganese Sulfate Monohydrate 10034-96-5	TWA: 0.02 mg/m ³ Mn respirable particulate matter TWA: 0.1 mg/m ³ Mn inhalable particulate matter	(vacated) Ceiling: 5 mg/m³ Ceiling: 5 mg/m³ Mn	IDLH: 500 mg/m ³ Mn TWA: 1 mg/m ³ Mn STEL: 3 mg/m ³ Mn
Boric Acid	STEL: 6 mg/m ³ inhalable	-	-

10043-35-3	particulate matter TWA: 2 mg/m³ inhalable particulate matter	
	particulate matter	

Appropriate engineering controls

Engineering Controls	Showers. Eyewash stations. Ventilation systems.		
Individual protection measures, su	Individual protection measures, such as personal protective equipment		
Eye/Face Protection	Wear eye/face protection.		
Skin and Body Protection	Wear long-sleeved shirt, long pants, and shoes plus socks. Chemical resistant protective gloves.		
Respiratory Protection	Refer to 29 CFR 1910.134 for respiratory protection requirements.		
General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.			

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Appearance Color	Liquid Light pink liquid Light pink	Odor Odor Threshold	Minimal Not determined
<u>Property</u> pH Melting point / freezing point Boiling point / boiling range Flash point Evaporation Rate Flammability (Solid, Gas) Flammability Limit in Air	<u>Values</u> 0.4 Not determined Not determined Not determined Liquid-Not applicable	<u>Remarks • Method</u>	
Upper flammability or explosive limits Lower flammability or explosive limits	Not determined		
Vapor Pressure Vapor Density Relative Density Water Solubility Solubility in other solvents Partition Coefficient Autoignition temperature Decomposition temperature Kinematic viscosity Dynamic Viscosity Explosive Properties Oxidizing Properties	Not determined 1.0 1.222-1.322 Completely soluble Not determined Not determined Not determined Not determined Not determined Not determined Not determined Not determined Not determined	(Air=1)	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization Will not occur. Conditions to Avoid Incompatible Materials.

Incompatible materials

Strong bases. Strong reducing agents.

Hazardous decomposition products

Sulfur dioxide. Sulfur trioxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	
Eye Contact	Avoid contact with eyes.
Skin Contact	Avoid contact with skin.
Inhalation	Do not inhale.
Ingestion	Do not ingest.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Boric Acid	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 0.16 mg/L (Rat)4 h
10043-35-3			

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

Please see section 4 of this SDS for symptoms.

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

Skin corrosion/irritation	Causes severe skin burns.
Serious eye damage/eye irritation	Causes severe eye damage.

Carcinogenicity

Borax is considered to be a human carcinogen when in respirable form (dust / powder).

Chemical name	ACGIH	IARC	NTP	OSHA
Boric Acid		Group 2A		Х
10043-35-3				

Legend

IARC (International Agency for Research on Cancer)

Group 2A - Probably Carcinogenic to Humans

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

X - Present

STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document Oral LD50 10,000.0000 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Boric Acid			115 - 153: 48 h Daphnia magna
10043-35-3			mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Chemical name	Partition coefficient
Boric Acid	-0.757
10043-35-3	

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

Chemical name	California Hazardous Waste Status
Zinc Sulfate Monohydrate 7446-19-7	Тохіс
Boric Acid 10043-35-3	Toxic

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

рот

UN/ID No	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s. (Zinc Sulfate)
Hazard class	9
Packing Group	III

Reportable Quantity (RQ)

Zinc sulfate (1000 lbs)

IATA UN number Proper Shipping Name Transport hazard class(es) Packing Group Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. (Zinc Sulfate) 9 III This material ships as a marine pollutant when inner packagings exceed 5L
IMDG UN number Proper Shipping Name Transport hazard class(es) Packing Group Marine Pollutant	UN3082 Environmentally hazardous substance, liquid, n.o.s. (Zinc Sulfate) 9 III This material ships as a marine pollutant when inner packagings exceed 5L

15. REGULATORY INFORMATION

International Inventories

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Zinc Sulfate Monohydrate	Х		Х		Х	Х		Х	Х
Manganese Sulfate Monohydrate					Х	Х		Х	Х
Boric Acid	Х	ACTIVE	Х	Х	Х	Х	Х	Х	Х

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

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

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Zinc Sulfate Monohydrate - 7446-19-7	7446-19-7	8-12	1.0
Manganese Sulfate Monohydrate - 10034-96-5	10034-96-5	8-11	1.0

CWA (Clean Water Act)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Zinc Sulfate Monohydrate		Х		

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Zinc Sulfate Monohydrate 7446-19-7	Х		X
Manganese Sulfate Monohydrate 10034-96-5	Х		X
Boric Acid 10043-35-3	Х		

16. OTHER INFORMATION

NFPA	Health Hazards	Flammability	Instability	Special Hazards
	2	0	1	X
HMIS_	Health Hazards	Flammability	Physical hazards	Personal Protection
	2	0	1	X

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet