

# SAFETY DATA SHEET

# MicroC<sup>®</sup> 4200



## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** MicroC<sup>®</sup> 4200      **Publication Date:** February 26, 2024  
**Product Code:** NA      **Replaces:** November 28, 2023  
**Product Use:** A reducing agent for biological processes

### Supplier Information:

Environmental Operating Solutions, Inc	Phone:	508-743-8440
53 Portside Drive	Fax:	844-308-5537
Pocasset, MA 02559	Website:	www.microc.com

**EMERGENCY TELEPHONE NUMBER:**      **CHEMTREC**      **800-424-9300**

## 2. HAZARDS IDENTIFICATION

### **OSHA Regulatory Status:**

**This product when used as intended is not hazardous according to 29 CFR 1910.1200**

**This product when used as intended is not hazardous according to GHS categories**

<b>GHS Pictograms:</b>	None Applicable
<b>Signal Word:</b>	None Applicable
<b>GHS Hazard Classification:</b>	None Applicable
<b>Hazard Statements:</b>	None Applicable

**Note: When vaporized, glycerin mist may cause irritation of the respiratory tract.**

### Potential Health Effects

Routes of Exposure	Ingestion, inhalation, skin contact, eye contact
Eyes	May cause slight irritation
Skin	May cause slight irritation
Inhalation	High mist concentrations may cause irritation of respiratory tract.
Ingestion	May be harmful if swallowed in large quantities

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS #	% by Weight
Glycerin; glycerol	56-81-5	70-74%
Water	7732-18-5	22-26%
Sodium Chloride	7647-14-5	4-6%
Methanol	67-56-1	< 1%

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## 4. FIRST AID MEASURES

<b>Eye Contact</b>	Immediately flush eyes thoroughly with plenty of water for 15 minutes and consult a physician immediately.
<b>Skin Contact</b>	Remove contaminated clothing and wash affected area with water and soap. Consult physician if irritation develops
<b>Inhalation</b>	Remove individual to fresh air. Seek medical attention if breathing problems persist
<b>Ingestion</b>	Do not induce vomiting. Rinse mouth thoroughly. Seek medical attention.
<b>General Advice</b>	If individual feels unwell following the exposure to the product consult a physician immediately. Present this Safety Data Sheet to the doctor in attendance
<b>Note to physician</b>	Treat patient symptomatically

## 5. FIRE FIGHTING MEASURES

<b>Flammability Summary (OSHA and NFPA)</b>	Non-flammable Material
<b>Protection of Firefighters:</b>	Wear suitable protective equipment. Wear self contained breathing apparatus if necessary
<b>Extinguishing Media</b>	Use equipment appropriate to the main source of the fire. Water spray, alcohol foam, dry chemical or CO2. Water or alcohol foam may cause frothing
<b>Specific hazards arising from the chemical</b>	Carbon oxides

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Protection for Spills</b>	Keep unnecessary personnel away from spill. Use personal protective equipment. Ventilate area of leak or spill. Avoid breathing vapors and mist.
<b>Methods for Containment</b>	Eliminate all sources of ignition. Stop flow of material if safe to do so. Dike spilled material. Absorb spill with inert absorbent material. Sand, earth and vermiculite are suitable absorbent materials.
<b>Environmental Precautions</b>	Prevent further leakage. Contain spill if safe to do so. Do not let product enter storm drains if possible.

## 7. HANDLING AND STORAGE

<b>Precautions for Safe Handling</b>	See other relevant sections of this SDS. Avoid contact with skin and eyes. Avoid breathing mist. Use with adequate ventilation. Do not handle and store near open flames, high heat or sources of ignition.
<b>Storage</b>	Keep containers closed when not in use. Minimize evaporative losses. Keep away from ignition sources.
<b>Incompatible Materials for Storage</b>	None known

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

INSUFFICIENT DATA ON MIXTURE. DATA ON INDIVIDUAL COMPONENTS PROVIDED BELOW

Component	Concentration in Product	ACGIH TLV	OSHA TABLE Z-1 Limits for Air Contaminants	NIOSH
Glycerin CAS No: 56-81-5	70-74% w/w	Form: Glycerin Mist TWA: 10 mg/m3	Form: Total Dust PEL: 15 mg/m3  Form: Respirable Fraction PEL: 5 mg/m3	Insufficient Data on Glycerin Mist
Methanol CAS No: 67-56-1	< 1 % w/w	TWA: 260 mg/m3	PEL: 260 mg/m3	TWA: 260 mg/m3

### Engineering Controls

Use proper equipment and storage conditions to control airborne levels below recommended exposure limits.

### Personal Protective Equipment

#### Eye Protection:

Use normal eye protection practices such as safety glasses with side shields. Use chemical goggles if risk of splashing is high.

#### Skin Protection

Handle with chemical resistant gloves. Dispose of contaminated gloves after use. Nitrile gloves recommended.

#### Respiratory Protection

If workers could be exposed to concentrations above the exposure limits in Section 8, use a full face respirator with multipurpose combination cartridges.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Flash Point	None to Boil (ASTM D93)
Color	Light brown	Boiling Point	Not determined
Odor	Musty – Sweet Odor	Evaporation Rate	Not determined
Odor Threshold	Not determined	UEL/LEL	Not determined
		Flammability (solid, gas)	Not determined
pH	4.00-11.00	Vapor Pressure	Not determined
Solubility in Water	Highly soluble in water	Vapor Density	Not determined
		Relative Density	Not Determined
Bulk Density	10.2 lbs/gal	Partition Coefficient	Not determined
Specific gravity	1.22 @ 20°C	Autoignition Temperatures	
		Decomposition	
Viscosity	45 cPs @ 20C	Temperature	Not determined

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## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	Avoid contact with oxidizing agents (e.g. nitric acid, peroxides, chromates)
<b>Chemical Stability</b>	Stable under normal storage conditions
<b>Possibility of hazardous reactions</b>	None known
<b>Conditions to Avoid</b>	Heat, flames, sparks. Contact with oxidizing agents
<b>Incompatible Materials</b>	None known
<b>Hazardous Decomposition Products</b>	Oxides of carbon under high heat

## 11. TOXICOLOGY

INSUFFICIENT DATA ON MIXTURE. DATA ON INDIVIDUAL COMPONENTS PROVIDED BELOW

<b>Eye Contact</b>	The components in this product may result in mild eye irritation from contact with liquid or vapors. Symptoms include redness, swelling, watering.
<b>Skin Contact</b>	The components in this product may result in mild skin irritation. Symptoms include redness, itching, burning, dermatitis.
<b>Inhalation</b>	Breathing high mist concentrations may be harmful. Inhalation can cause irritation of the throat and lungs.
<b>Ingestion</b>	Ingestion of this product may result in nausea, vomiting and diarrhea. Aspiration into the lungs can cause damage and inflammation to the lungs.
<b>Target Organs</b>	Lungs, Kidneys
<b>Prolonged Exposure</b>	Symptoms include nausea, headache, vomiting

### Glycerin; Glycerol CAS No. 56-81-5

<b>Acute Toxicity</b>	Dermal LD50 = > 10,000 mg/kg (Rabbit) Inhalation LC50 = > 570 mg/m <sup>3</sup> 1 hr (Rat) Oral LD50 = 12,600 mg/kg (Rat)
<b>Carcinogenicity</b>	Not listed by ACGIH, IARC, NIOSH, NTP or OSHA
<b>Mutagenicity</b>	No data available
<b>Reproductive Toxicity</b>	No data available

### Methanol 67-56-1

<b>Acute Toxicity</b>	Dermal LD50 = 15,800 mg/kg (Rabbit) Inhalation LC50 = 64,000 mg/m <sup>3</sup> 4 hr (Rat) Oral LD50 = 5,600 mg/kg (Rat)
<b>Carcinogenicity</b>	Not listed by ACGIH, IARC, NIOSH, NTP or OSHA
<b>Mutagenicity</b>	No data available
<b>Reproductive Toxicity</b>	No data available

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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### MicroC 2000:

#### Acute Toxicity:

Ceriodaphnia dubia, LC50 @48 hr > 400 mg/L.

Pimephales promelas, LC50 @ 96 hr > 400 mg/l.

#### Chronic Toxicity:

Ceriodaphnia dubia, NOEC 400 mg/L, LOEC > 400 mg/L and IC25 > 400 mg/L.

Pimephales promelas, NOEC 200 mg/L, LOEC > 400 mg/L and IC25 284.3 mg/L.

#### Persistence and degradability

No data available

#### Bioaccumulative potential

No data available

#### Mobility in soil

No data available

#### Other adverse effects

No data available

## 13. DISPOSAL CONSIDERATIONS

This product as supplied is not classified as a RCRA hazardous waste according to 40 CFR 261. However it should be fully characterized prior to disposal as contamination with other materials may subject it to hazardous waste regulations. RCRA requires the user of the product to determine whether the product meets RCRA criteria for hazardous waste. Always consult with local, state and federal regulations prior to disposal.

## 14. TRANSPORTATION INFORMATION

#### US Domestic DOT

Not Regulated

#### Shipping Name

Glycerin; Glycerol

#### IMDG

Not dangerous goods

#### IATA

Not dangerous goods

#### Marine pollutant

No

## 15. REGULATORY INFORMATION

### United States

### Toxic Substances Control Act

The components of this product are listed on the TSCA Inventory of Existing Chemical Substances

#### Section 302 (EHS) TPQ

Not applicable

#### Section 304 (EHS) TPQ

Not applicable

### SARA Section 311/312 Hazard Categories

Acute - NO

Chronic – NO

Physical - None

Pressure Hazard - NO

Fire Hazard - NO

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**SARA Section 313**

This product may contain trace amounts of a chemical that is subject to reporting requirements of SARA  
Methanol CAS # 67-56-1 Typical % Weight in Product 0.0-0.10%

**CERCLA**

This product may contain trace amounts of a chemical that is subject to reporting requirements of CERCLA  
Methanol RQ # 5,000. Typical % Weight in Product 0.0-0.10%

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3): None**

**State Right to Know Regulations**

California – Proposition 65	WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm: CAS# 67-56-1 - Methanol
Massachusetts Right to Know	Glycerin, Methanol
Minnesota Hazardous Substances List	Glycerin mist, Methanol
New Jersey Right to Know	Methanol
Pennsylvania Right to Know	Glycerin, Methanol
Rhode Island Right to Know	Glycerin, Methanol

**16. ADDITIONAL INFORMATION**

MSDS REVISION STATUS: February 26, 2024 | Replaces: November 28, 2023

THIS SAFETY DATA SHEET (SDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS SDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. WE BELIEVE THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF ITS PUBLICATION DATE, BUT MAKE NO WARRANTY THAT IT IS. IF THIS SDS IS MORE THAN THREE YEARS OLD YOU SHOULD CONTACT THE SUPPLIER TO MAKE CERTAIN THAT THE INFORMATION IS CURRENT.