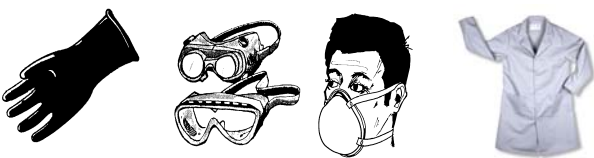
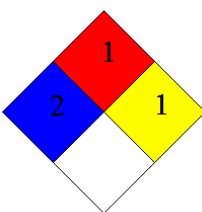



Personal Protective Equipment	NFPA	HMIS
		
See Section 8		

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:                    MICRO**

MSDS#

MICRO [2]

Trade Name:

Micro

Formula:

Mixture, proprietary

Manufacturer's name:

Cutting Edge Solutions, LLC

1572 Hampton Way

Santa Rosa, CA 95402

Phone: 707-528-0522 Monday-Friday 8:00 a.m.-6:00 p.m PST, general information

Fax: 707-528-0422

**Poison Control:**

**1-800-222-1222**

**TDD:**

**1-800--972-3323**

### SECTION 2: HAZARDS IDENTIFICATION

Routes of entry: Skin: √ Eye: √ Ingestion: √ Inhalation: √

**EYE-** May cause irritation, redness and pain to the eyes.

**SKIN-** May cause irritation and redness at the site of contact. May be harmful if absorbed through the skin.

**INGESTION-** May cause nausea, vomiting, diarrhea, and/or irritation of the digestive tract if swallowed.  
May be harmful if swallowed.

**INHALATION-** May cause respiratory tract irritation if inhaled. May be harmful if inhaled.

Medical conditions or medications generally known to be aggravated by exposure to product: Not known.

Frequency and duration of exposure: Not known.

Effects of overexposure: Not known.

**CARCINOGENECITY:**

NTP: Not listed.

IARC: Not listed. NTP: Not listed.

OSHA: Not listed.

AICGH: Not listed.

**CONTINUED ON NEXT PAGE**

### SECTION 3: COMPOSITION

Components	CAS No.
Cobalt Sulfate	10026-24-1
Ammonium molybdate	12054-85-2
Citric Acid	77-92-9
Mn EDTA	15375-84-5
Zn EDTA	14025-21-9
Fe EDDHA	Not Applicable
Fe DPTA	Not Applicable
Cu EDTA	5064-31-3
Solubor	12631-71-9
Potassium carbonate	584-08-7
Calcium Nitrate	15245-12-2

#### SECTION 4: FIRST AID MEASURES

**EYES:** Immediately flush eyes with water for 15 minutes, occasionally lifting the upper and lower eyelids. Contact a physician.

**SKIN:** Wash areas of contact with soap and water for 15 minutes. Remove any contaminated clothing and footwear. If irritation continues consult a physician.

**INGESTION:** If swallowed do not induce vomiting. Wash out mouth with water. Never give any liquids by mouth to an unconscious person. Consult a physician immediately.

**INHALATION:** Move to fresh air. Obtain immediate medical attention if symptoms occur. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Use proper hygiene practices when using this product (nitrile gloves, eye protection, NIOSH approved respirator if used as an aerosol).

Utilize protective clothing to minimize skin contact (apron, lab coat, long sleeved shirt, pants, no shorts, no cut T-shirts).

Wear closed-toed shoes (no sandals/flip-flops) when using product.

Keep hair pulled back and out of face/eye area when using product.

#### SECTION 5: FIRE FIGHTING MEASURES

**Flammable properties:** Typically not flammable.

**Extinguishing media:** Use suitable extinguishing media for the surrounding fire. CO<sub>2</sub>, dry chemical powder, foam. Caution: CO<sub>2</sub> will displace air in confined spaces and may cause an oxygen deficient atmosphere.

**Special firefighting procedures:** Not available.

**Unusual Fire and Explosion Hazards:** Not available.

**Protection of Firefighters:** Burn vapors may be irritating to eyes, skin, and the respiratory tract. Firefighters should utilize butyl rubber boots, self contained breathing apparatus (SCBE) and full fire fighting gear (Bunker gear).

**Stability:** Stable at room temperature.

**Incompatibility (materials to avoid):** Strong acids, oxidants, strong alkalines, strong reducing agents such as metal hydrides or alkali metals may generate hydrogen gas which could create a possible explosion hazard. Nitrogen oxides, ammonia and/or derivatives.

**Hazard decomposition or by products:** Decomposing plastic fumes from containers, carbon monoxide, carbon dioxide, oxides of sulfur, heavy metal fumes.

**Hazardous polymerization:** Not available. **CONTINUED ON NEXT PAGE**

**Conditions to avoid:** Do not store above 100° F as container may rupture.

See SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES for Flammable properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8.

Contain and isolate any hazard area from unprotected personnel.

Spill response procedures: Absorb liquid spills with an absorbent; contain material and dispose of at an approved landfill in accordance with local, state, and federal regulations. Finish cleaning by spreading water on contaminated surfaces and dispose of in an approved landfill in accordance with local, state, and federal regulations.

Clean water act requirements: Not available

Resource Conservation and Recovery Act: Not available

## SECTION 7: HANDLING AND STORAGE

Precautions: Use with adequate ventilation. Keep container away from heat sources. Do not ingest. Do not breathe vapors. Do not pour on skin. If ingested, seek medical advice immediately and show the container or the label on the container.

Storage: Store out of direct sunlight. Store in a cool, dark place that is well ventilated. Keep container closed when not in use. Do not reuse containers.

## SECTION 8: EXPOSURE CONTROLS

Engineering controls: Use with local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits. If usage results in the generation of fume or mist, use adequate ventilation to keep exposure to airborne contaminants below exposure limits.

Personal Protection: Wear protective safety goggles (ANSI Z87.1 std), lab coat or apron, NIOSH particle respirator and nitrile gloves when handling.

Respiratory protection: Wear NIOSH approved particle respirators if applying as a mist or spray. Follow the OSHA respirator regulations found in 29 CFR 1910.134

Ventilation: Use with adequate ventilation.

Protective gloves: Use with Nitrile gloves. Latex gloves can cause allergies in susceptible individuals.

Eye protection: Use with safety glasses or goggles.

Other protective clothing and equipment: Protective clothing to minimize skin contact should be worn. Wear closed-toed shoes when using product. Keep hair pulled back and out of face/eye area when using. Wear long sleeve shirts, pants, and socks..

Wash thoroughly with soap and water after handling and before eating, drinking, or smoking.

**CONTINUED ON NEXT PAGE**

Exposure limits:

	CAS No.	ACGIH/TWA	OSHA PEL/8 hrTWA
Cobalt Sulfate	10026-24-1	0.02 mg/m <sup>3</sup>	0.2 mg/m <sup>3</sup>
Ammonium molybdate	12054-85-2	0.5mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Citric Acid	77-92-9	Not established	Not established
Mn EDTA	15375-84-5	0.2 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Zn EDTA	14025-21-9	Not established	Not established
Fe EDDHA	Not Applicable	Not established	Not established
Fe DPTA	139-13-9	1mg/m <sup>3</sup>	10mg/m <sup>3</sup> (as oxide)
Cu EDTA	5064-31-3	0.1mg/m <sup>3</sup>	0.1mg/m <sup>3</sup>
Solubor	12631-71-9	1 mg/m <sup>3</sup>	Not established
Potassium carbonate	584-08-7	Not established	Not established
Calcium Nitrate	15245-12-2	Not established	Not established

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance and odor:	Dark Red. Odor of metallic Iron.
Boiling Point:	Not available
Solubility in Water:	Soluble in water (w/w)
Vapor pressure:	Not available
Melting Point:	Not available
Molecular Weight:	unknown
Specific Gravity:	1.31
pH:	5.9
Evaporation Rate:	Not available
Flash Point:	Not available
Flammable limits:	<b>LEL:</b> Not available <b>UEL:</b> Not available

**SECTION 10: STABILITY AND REACTIVITY**

Stability:	The product is stable under normal conditions and pressures.
Instability Temperature:	Avoid freezing. [See section 5 Fire Fighting Measures, on container properties].
Incompatibility with other substances:	Strong acids, oxidants, strong alkalines, strong reducing agents such as metal hydrides or alkali metals may generate hydrogen gas which could create a possible explosion hazard. Nitrogen oxides, ammonia and/or derivatives.
Hazardous decomposition products:	Hazard decomposition or by products: Decomposing plastic fumes from containers, carbon monoxide, carbon dioxide, oxides of sulfur, heavy metal fumes,
Hazardous polymerization:	Not available.

**CONTINUED ON NEXT PAGE**

**SECTION 11: TOXICOLOGICAL INFORMATION**

Routes of entry: Skin. Eyes. Ingestion. Inhalation.  
RTECS: CAS#548-08-7: TS7750000  
CAS#10026-24-1 :GG3200000  
CAS#77-92-9: GE7350000  
CAS#10026-24-1: GG3200000  
LD50/LC50: CAS# 548-08-7: Oral, mouse: LD50=2570 mg/kg; Oral, rat: LD50=1870 mg/kg.  
CAS#10026-24-1: Oral, rat: LD50=582 mg/kg  
CAS#77-92-9: Draize test, rabbit, eyeL 750 ug/24 hr severe; draize test, rabbit, skin, 500 mg/24h mild; oral, mouse, : LD50=5040 mg/kg; oral, rabbit: LD50= 7 gm/kg  
CAS#12054-85-2: Oral, rat: LD50=333 mg/kg  
Chronic effect on Humans: Not available  
Other toxic effects on humans: Hazardous in case of skin contact (irritant), of ingestion, of inhalation.  
CAS#10026-24-1: California, carcinogen, as of 6/2/00.  
CAS#15375-84-5, CAS#14025-15-1, 14025-21-9, 139-13-9 is considered a possible human carcinogen by IARC and/or NTP.

## SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not available.  
BOD5 and COD: Not available.  
Products of Biodegradation: Not available.  
Heavy metals content: None. Information on heavy metals content and levels are available at <http://www.aapfco.org/metals.htm>

## SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal: Waste must be disposed of in accordance with federal, state, and local environmental control regulations.  
Recycling: Triple rinse container and recycle empty containers at appropriate recycling facilities in accordance with federal, state, and local environmental control regulations.

## SECTION 14: TRANSPORT INFORMATION

DOT Classification: Not a DOT controlled material in the United States of America.  
IATA/IMO/RID/ADR: Not available, or not regulated.  
Special provisions for transport: Keep containers closed and keep from freezing.  
Do not store above 100° F.

**CONTINUED ON NEXT PAGE**

## SECTION 15: REGULATORY INFORMATION

### Federal and State Regulations:

#### California Safe Drinking Water and Toxic Enforcement Act of 1986:

This product contains the following ingredients known to the State of California to cause birth defects, cancer, or other reproductive harm and require a warning under the statute: CAS# 10026-24-1

TSCA: CAS# 584-08-7 is listed on the TSCA inventory.  
CAS# 10026-24-1 is not listed on the TSCA inventory.  
CAS#12054-85-2 is not listed on the TSCA inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR 720.3 (u)(2))

#### SARA Title III Rules

Section 313 Toxic Chemicals: CASRN: 14025-15-1 Organometallic copper compound.  
CASRN: 15375-84-5 Manganese EDTA, sodium salt.  
CASRN#14025-21-1 Zinc ETDA, sodium salt.

Section 302 EHS: None

International Regulations: This product is not currently sold outside the continental United States of America.

WHIMS: Not Applicable  
EINECS: Not Applicable  
METI: Not Applicable  
KECL: Not Applicable  
AICS: Not Applicable

### Note to the reader

This Material Safety Data Sheet is applicable only to the material as packaged. This product contains chemicals and all chemicals may pose unknown hazards and should be used with utmost caution. The information and recommendations contained herein are represented to be in good faith, and believed to be as accurate as possible within the current version of this Material Safety Data Sheet (MSDS). If this product is mixed with any other materials and/or chemicals, deteriorates, or becomes contaminated with microbiological or chemical agents, it may pose hazards not listed or discussed in this MSDS. It is the end users responsibility to insure proper procedures are developed and adhered to when utilizing this product. This includes utilizing proper personal protection equipment, proper handling, and usage protocols based on the end users actual usage of the product. While his MSDS is based on technical data determined to be accurate, and created in good faith, CES assumes no responsibility for the completeness or accuracy of the information contained herein. Cutting Edge Solutions, LLC (CES) makes no representation as to the completeness or accuracy of this MSDS. In no event will CES or the seller be liable for consequential, incidental, special, exemplary, or indirect damages resulting from the use of this MSDS.

**FINAL PAGE      MICRO MSDS**