

Micel-Miles Chemical Co. 1240 N. Knollwood Circle Anaheim, CA 92801

MATERIAL SAFETY DATA SHEET

N.F.P.A. Rating: Health (1), Flammability (0), Reactivity (0)

I. PRODUCT IDENTIFICATION

Trade name (as labeled): ZINCATE 88 REPLENISHER

Chemical names, common names: Zinc Sulfate, Nickel Sulfate, and Copper Sulfate

Manufacturer's name: MICEL

Address: 1240 N. KNOLLWOOD CIRCLE ANAHEIM, CA 92801

Emergency phone: 1-800-424-9300

Name of preparer*: Technical Dept.

Business phone: 714/995-3300

Date prepared: October 21, 1995

II. HAZARDOUS INGREDIENTS

Chemical Names	CAS Numbers	Percent*	Exposure Limits in Air		
			ACGIH(TLV)	OSHA(PEL)	OTHER
Zinc Sulfate	7733-02-0	<25%	N/A	N/A	
Nickel sulfate	7786-81-4	<15%	N/A	N/A	
Copper Sulfate	7758-98-7	<15%	1 mg/m3	N/A	
Sodium Hydroxide	1310-73-2	<5%	2 mg/m3	2 mg/m3	

III. PHYSICAL PROPERTIES

Vapor density (air=1): N/D

Melting point or range, F: N/D

Specific gravity: 1.04

Boiling point or range, F: 215°F

Solubility in water: Complete

Vapor pressure, mmHg at 20°C: N/D

Evaporation rate (butyl acetate=1): N/D

Appearance and odor: Green liquid.

HOW TO DETECT THIS SUBSTANCE* (warning properties of substance as a gas, vapor, dust, or mist):

IV. FIRE AND EXPLOSION

Flash Point, F (give method): N/A

Auto-ignition temperature, F: N/A

Flammable limits in air, volume %: lower N/A upper N/A

Fire extinguishing materials:

X water spray

X carbon dioxide

other:

X foam

X dry chemical

Special fire fighting procedures: Always wear protective equipment and/or clothing when extinguishing fires.

Unusual fire and explosion hazards: None.

V. HEALTH AND HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE for each potential route of exposure.

Inhaled: N/D

Contact with skin or eyes: N/D

Absorbed through skin: N/D

Swallowed: N/D

Acute: N/D

Chronic: N/D

FIRST AID: EMERGENCY PROCEDURES

Eye Contact: Flush with water for at least 15 minutes.

Skin Contact: Wash area thoroughly with water and remove contaminated clothing.

Inhaled: Remove person to fresh air.

Swallowed: Give large amounts of water. Do not induce vomiting.

SUSPECTED CANCER AGENT?

X NO: This product's ingredients are not found in the lists below.

YES: Federal OSHA NTP IARC Cal/OSHA(see note)*

NOTE: California employers using Cal/OSHA-regulated carcinogens must register with Cal/OSHA.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

RECOMMENDATIONS TO PHYSICIAN: None.

VI. REACTIVITY DATA

Stability: X Stable Unstable

Conditions to avoid: None.

Incompatibility (materials to avoid): None.

Hazardous decomposition products (including combustion products): None.

Hazardous polymerization: May occur X Will not occur

Conditions to avoid: None.

VII. SPILL, LEAK AND DISPOSAL PROCEDURES

Spill response procedures (include employee protection measures):
Soak up spill with absorbent compound and dispose. Flush remaining area with water.

Preparing wastes for disposal (container types, neutralization, etc.):

NOTE: Dispose of all wastes in accordance with federal, state and local regulations.

VIII. SPECIAL HANDLING INFORMATION

Ventilation and engineering controls: Local exhaust.

Respiratory protection: None required.

Eye protection (Type): Safety glasses.
Glove (specify material): Rubber gloves.
Other clothing and equipment: Semi protective clothing.

Work practices, hygienic practices: Safety showers and eyewash stations should be provided in all areas in which the compound is handled.

Other handling and storage requirements: Should be stored in a cool dry place.

Protective measures during maintenance of contaminated equipment:
None.

IX. LABELING

Labeling (precautionary statements)*:

D.O.T. Label*: NA 9188 Hazardous Substance, Liquid, n.o.s. ORM-E (contains Nickel Sulfate)

*Not required. Space has been provided on this form for optional use