

# Material Safety Data Sheet

Product: **Dyna Gro Copper**

May be used to comply with OSHA's Hazard Communication Standard 29CFR 1910. Standard must be consulted for specific requirements.

**QUICK IDENTIFIER**

Common Name: Copper Nitrate Solution

## SECTION 1 - COMPANY INFORMATION

Manufacturer's Name: Chemical Dynamics, Inc. Emergency Telephone Number: 1-800-424-9300  
Address: 4206 Business Lane Other Information Call: 1-813-752-4950  
City, State, and Zip Plant City, Florida 33566 Date Prepared: 8/26/05

## SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Component(s) (chemical & common name(s))	OSHA PEL	ACGIH TLV	EXPOSURE LIMITS	CAS NO.
Copper Nitrate	1 mg/m3	1 mg/m3		10031-43-3
Nitric Acid	2 ppm	2 ppm		7697-37-2

## SECTION 3- PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: N/A °F Specific Gravity: 1.46 Vapor Pressure: N/A

Vapor Pressure: N/A Reactivity in Water: Soluble Melting Point: N/A

Appearance and Odor: Medium to dark blue aqueous liquid with an acrid odor.

## SECTION 4- FIRE & EXPLOSION DATA

Flash Point: N/A °F Method Used: N/A  
Flammable Limits in Air: N/A LEL Lower: N/A UEL Upper: N/A  
Auto-Ignition Temp: N/A Extinguisher Media: Non flammable if involved in fire, can extinguish with dry chemical; CO<sub>2</sub>, water spray or foam.

Special Fire Fighting Procedures: This product is non-flammable, and does not support combustion. If heated to decomposition the nitrate ion may be released. Use of SCBA is recommended. Fire run-off water should be contained to prevent environmental contamination.

Unusual Fire and Explosion Hazards: If this product is heated to an anhydrous state it will emit nitrates which could explode under the right conditions. Exposure to high heat can emit toxic vapors.

## SECTION 5- PHYSICAL HAZARDS (REACTIVITY DATA)

Stability:  Stable  Unstable Conditions to Avoid: Excessive heat

Incompatibility Materials to Avoid!: Strong bases, such as sodium hydroxide, potassium hydroxide or aqua ammonia; Flammable and combustible materials, finely powdered metals and strong reducing agents, such as ammonium sulfite or ammonium phosphite.

**SECTION 5- PHYSICAL HAZARDS (REACTIVITY DATA)..Continued**

Hazardous Decomposition Products: Copper compounds and oxides of nitrogen.

Hazardous Polymerization: May Occur:

Will Not Occur:

Conditions to Avoid: Extreme Heat.

**SECTION 6- HEALTH HAZARDS**

ACUTE: Mild skin irritant, conjunctivitis, upset stomach and/or gastrointestinal symptoms are temporary.

CHRONIC: Prolonged skin contact may result in dermatitis (drying) or eczema (itching)

CARCINOGEN \_\_\_\_\_ NTP \_\_\_\_\_ OSHA \_\_\_\_\_  
LISTED IN: \_\_\_\_\_ IARC MONOGRAPH \_\_\_\_\_ X \_\_\_\_\_ NOT LISTED

**ROUTES OF ENTRY AND EMERGENCY FIRST AID PROCEDURES**

- 1. Inhalation: No hazard under normal conditions. If necessary move victim to fresh air. If symptoms persist call a physician. Administer CPR if necessary.
- 2. Eyes: Flush eyes with running water for 15 minutes. If redness persists, seek medical attention.
- 3. Skin: Remove contaminated clothing, wash with clean water and soap. Put on clean clothes.
- 4. Ingestion: Give large amounts of water. DO NOT INDUCE VOMITING. Call physician immediately.

**SECTION 7- SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES**

**Precautions to be Taken**

Handling and Storage: Store in cool ventilated place away from fire hazards, excessive heat, flammable or combustible materials. Do not allow product to dry out.  
Store away from bleach and strong reducing agents such as ammonium phosphite.

Other Precautions: Do not allow product to go below 35 degrees. Apply product in open areas. Keep away from children and pets. Do not contaminate feed, seed or any water sources.

**Steps to be taken in**

case of Release or Spill: Dike area and maximize recovery. Pump into a tank or absorb with diatomaceous earth or sand. Sweep up and place into containers for land application at recommended rates. Prevent entry into sewers or waterways. Clean up at once; do not allow dry product to come in contact with heat or ignition sources.

**Environmental**

Precautions: Copper compounds are toxic to fish and aquatic organisms. Do not contaminate any waterway, lakes, streams or estuary by direct application of cleaning of equipment or disposal.  
Triple rinse empty containers and offer for recycling or dispose of in an approved landfill.  
Consult federal, state and local rules and regulations for proper disposal.

---

**SECTION 8- CONTROL AND PROTECTIVE MEASURES**

---

**Respiratory Protection:** None required if used in open under normal conditions. Respiratory protection may be required in the event of a spill in an enclosed area. Use SCBA when fighting fires.

**Protective Gloves:** Impervious gloves from rubber, neoprene or nitrile.

**Eye Protection:** Side-shielded safety glasses or chemical splash-proof goggles.

**Other Protective Clothing or equipment:** Eye wash station with safety shower. Use of a chemically resistant apron may be required for some activities.

**Hygienic Work Practice** Bathe and change clothes daily. Wash contaminated clothing separate from other laundry.

---

**SECTION 9- TRANSPORT AND REGULATORY INFORMATION**

---

**MATERIAL IS HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION**

**Proper Shipping Name:** Corrosive liquid, acidic, inorganic, N.O.S. (Copper Nitrate, Nitric Acid)

**Hazard Class Number:** 8

**Description:** Corrosive

**UN Identification Number:** 3264

**Packing Group:** II

**DOT Label(s) Required:** Corrosive

**NFPA CODE:** Health = 3      Flammability = 0      Reactivity = 0

**Toxicity:** LD50 (Oral-rat) = 940 mg/kg

**Notes:** This product is regulated by EPCRA and the provisions of SARA Title III, under section 304 and 313 as a copper compound.

---