

# MATERIAL SAFETY DATA SHEET

**BIRCHWOOD CASEY®**  
**MICROLOK MZN ZINC PHOSPHATE**

Page 1 of 4  
DATE REVISED: 6/1/10  
REVISION MSDS NO. 8900-05

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **MICROLOK MZN ZINC PHOSPHATE**

PRODUCT PART NUMBERS: 890051, 890058

MANUFACTURED BY: BIRCHWOOD LABORATORIES, INCORPORATED

7900 Fuller Road

Eden Prairie, MN 55344 USA

Product Information Telephone Number: (952) 937-7900 (8:00-4:00pm CST)

Fax Number: (952) 937-7979

[www.birchwoodcasey.com](http://www.birchwoodcasey.com)

**24 HOUR TRANSPORTATION EMERGENCY NUMBER: CHEMTREC 800-424-9300 U.S. & CANADA**  
**703-527-3887 INTERNATIONAL (Collect)**

**24 HOUR POISON CONTROL EMERGENCY NUMBER: 866-291-7152 U.S. & CANADA**

## 2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: **DANGER! Corrosive.** May be harmful if swallowed or inhaled. Causes severe burns to eyes and skin. **OXIDIZER.** Contact with other materials may cause fire.

APPEARANCE/ODOR: Pale green liquid, odorless.

EYE CONTACT: Severe or permanent eye damage.

SKIN CONTACT: Severe irritation and possible burns.

INGESTION: Severe burns of mouth, throat and stomach. May cause methemoglobinemia with cyanosis; cramping, nausea, diarrhea.

INHALATION: If sprayed, severe irritation of respiratory tract and mucous membranes; coughing, difficulty breathing.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Description	CAS #	Weight %	OSHA PEL* TWA	OSHA PEL STEL/C	ACGIH TLV TWA	ACGIH TLV STEL/C
Zinc Phosphate	7779-90-0	< 25	NE	NE	NE	NE
Phosphoric Acid	7664-38-2	< 25	1 mg/m <sup>3</sup>	NE	1 mg/m <sup>3</sup>	3 mg/m <sup>3</sup> -STEL
Nitric Acid	7697-37-2	< 10	5 mg/m <sup>3</sup>	NE	5.2 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> -STEL
Ammonium Nitrate	6484-52-2	< 6	NE	NE	NE	NE
Zinc Nitrate	7779-88-6	< 6	NE	NE	NE	NE
Water	7332-18-5	> 28	NE	NE	NE	NE

**TWA** – Time-weighted Average **STEL** – Short-term exposure limit **C** – Ceiling

(skin) – skin designation means that harmful amounts may be absorbed through the skin

\* Certain States enforce PELs that were in place in 1989, but were later removed by the U.S. Supreme Court. Check with your State OSHA to determine which PEL is enforced in your State.

**NE** = not established **NA** = not applicable **NDA** = no data available

---

#### **4. FIRST AID MEASURES**

**EYE CONTACT:** Flush immediately with clean water. Continue for at least 15 minutes. Seek immediate medical attention.

**SKIN CONTACT:** Remove contaminated clothing to avoid prolonged contact. Wash affected areas with water. Seek medical attention if irritation develops.

**INGESTION:** If victim is conscious, administer 1 or 2 sips of water, and contact poison control center or physician immediately. DO NOT induce vomiting.

**INHALATION:** Remove from exposure. Seek medical attention if necessary if breathing is difficult.

---

#### **5. FIRE FIGHTING MEASURES**

##### **FLAMMABLE PROPERTIES**

**FLASHPOINT:** None

**METHOD USED:** NA

**FLAMMABLE LIMITS:** LFL: NA

**UFL:** NA

**EXTINGUISHING MEDIA:** Non-flammable. Use media as appropriate for surrounding materials.

**FIRE & EXPLOSION HAZARDS:** Contact with metals may release flammable hydrogen gas. Oxidizer. May increase the intensity of other burning materials.

**SPECIAL FIRE FIGHTING PROCEDURES:** Firefighters should wear approved SCBA and full turn-out gear.

---

#### **6. ACCIDENTAL RELEASE MEASURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Wear recommended protective equipment. Recover as much free liquid as possible and collect in acid-resistant container. Use absorbent to pick up residue. Avoid discharging liquid directly into a sewer or surface waters.

Review current local, state and federal laws, codes, statutes, and regulations to determine appropriate agencies to be notified, and the conditions under which they are to be notified. (See Section 13 for waste disposal comments).

---

#### **7. HANDLING AND STORAGE**

**HANDLING:** Avoid breathing mists or spray. Avoid eye and skin contact. Wear protective equipment when handling product. Keep out of the reach of children.

**STORAGE:** Store in cool, dry area. Store in acid-resistant containers. Keep containers covered when not in use. Avoid storing with incompatible materials (refer to Section 10). Empty containers may retain hazardous (solid) product residues.

---

#### **8. EXPOSURE CONTROL / PERSONAL PROTECTION**

**RESPIRATORY PROTECTION:** Use a NIOSH approved respirator (supplied-air type) if any of the occupational exposure limits in Section 3 may be exceeded.

**EYE PROTECTION:** goggles, face shield

**PROTECTIVE GLOVES:** butyl rubber

**BODY PROTECTION:** butyl rubber apron, as needed

**VENTILATION:** Use general/dilution or local exhaust ventilation as needed to ensure that occupational exposure limits are not exceeded.

**OTHER PROTECTIVE EQUIPMENT:** Eyewash and emergency shower

**NOTE:** All PPE should be selected on the basis of an exposure assessment performed by a competent person.

---

---

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

BOILING POINT: < 212°F  
VAPOR PRESSURE: NDA  
VAPOR DENSITY: (Air = 1): < 1  
SOLUBILITY IN WATER: Complete  
APPEARANCE: Pale green liquid

SPECIFIC GRAVITY: (Water = 1): 1.59  
VOLATILE BY VOLUME: NA  
EVAPORATION RATE: (Ethyl Ether = 1): < 1  
pH: < 1  
ODOR: characteristic odor

---

---

**10. STABILITY AND REACTIVITY**

STABILITY: Stable.

CONDITIONS TO AVOID: Excessive heat, shock, friction.

INCOMPATIBILITY (materials to avoid): Organic materials, cyanides, metals, highly alkaline substances, inorganic sodium compounds, alcohols, hydrogen sulfide. May generate heat or form flammable gases when mixed with a wide variety of substances.

HAZARDOUS DECOMPOSITION PRODUCTS: Contact with metals such as aluminum and zinc may produce hydrogen gas. Thermal decomposition may produce phosphoric or nitrogen oxides.

HAZARDOUS POLYMERIZATION: Will not occur.

---

---

**11. TOXICOLOGICAL INFORMATION**

There is no product based toxicological information for this product. Toxicology information is provided based on individual ingredients.

LD<sub>50</sub>, oral, rat: 1530 mg/kg (phosphoric acid), 2217 mg/kg (ammonium nitrate)

TARGET ORGANS: Eyes, skin, lungs (corrosive), blood.

Medical conditions that may be aggravated by exposure: Pre-existing skin, eye, respiratory, blood disorders.

Carcinogenicity: IARC: None    NTP: None    OSHA: None

---

---

**12. ECOLOGICAL INFORMATION**

ECOTOXICITY: Phosphates may persist indefinitely if released into groundwater.

ENVIRONMENTAL FATE: NDA

---

---

**13. DISPOSAL CONSIDERATIONS**

This product exhibits the characteristic of corrosivity (EPA Hazardous Waste Number D0002). Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Any disposal practice must be in compliance with local, state, and federal laws and regulations. Contact the appropriate agency for specific information. Treatment, transport, storage and disposal of hazardous waste must be dealt with by a licensed facility or waste hauler.

---

---

**14. TRANSPORT INFORMATION**

**D.O.T. HAZARDOUS MATERIALS DESCRIPTION AND PROPER SHIPPING NAME:**

Corrosive Liquid, Acidic, Inorganic, N.O.S. (Phosphoric and Nitric Acids), 8 / UN3264 / P.G. II Exceptions: 49CFR 173.154

---

---

---

## 15. REGULATORY INFORMATION

TSCA (TOXIC SUBSTANCES CONTROL ACT): the materials in this product are listed on the TSCA Inventory.

CERCLA (Comprehensive Response Compensation and Liability Act, 40 CFR 117, 302: Reportable Quantity = 1,000 lb. (nitric acid, zinc nitrate)

SARA TITLE III (Superfund Amendments and Authorization Act):

Section 311/312:

Immediate Health Effects: Yes

Delayed Health Effects: Yes

Fire Hazard: No

Sudden Release of Pressure Hazard: No

Reactivity Hazard: No

Section 313 Reportable Ingredients: Phosphoric Acid, Nitric Acid

STATE "RIGHT-TO-KNOW": This product may contain components cited on certain state lists. Consult with your individual State regarding this product's components.

CALIFORNIA PROPOSITION 65: **WARNING:** This product contains a chemical known to the State of California to cause cancer (nickel or nickel compounds). Employers may have an obligation to warn their employees.

---

## 16. OTHER INFORMATION

National Fire Protection Association (NFPA): Health: 3 Flammability: 0 Reactivity: 2

The data here is for hazard communication to our employees, our customers and their employees, and authorized regulatory agencies. For the intended purpose, this MSDS (Material Safety data Sheet) may be duplicated or the data transcribed to an alternative form.

**NOTE:** The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, Birchwood Laboratories, Inc. makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular period. Accordingly, Birchwood Laboratories, Inc. will not be responsible for damages of any kind resulting from the use of or reliance upon such information. **NO REPRESENTATIONS, OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER NATURE ARE MADE HEREUNDER TO WHICH THE INFORMATION REFERS.** The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment.

---

### **FOR ASSISTANCE WITH PLACING ORDERS:**

- Product Pricing / Payment Terms
- Shipping and Tracing of Shipments
- Sales Rep Locations

Call our Sales Department (952) 937-7931

Or 1-800-328-6156 or Fax (952) 937-7979

---

### **FOR PRODUCT USAGE ASSISTANCE**

- Questions on Operation of Products
- Solving Finishing Problems
- Operator Safety and Pollution Control

Call our Customer Service Desk Department (952) 937-7931

Or 1-800-328-6156 or Fax (952) 937-7979