

**FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL DAY OR NIGHT 1-800-561-8273 or  
CHEMTREC 1-800-424-9300**

**1. CHEMICAL PRODUCT AND COMPANY INFORMATION**

**MANUFACTURED FOR:**

UNITED AGRI PRODUCTS CANADA, INC.  
789 Donnybrook Drive • Dorchester, Ontario N0L 1G5

**24-Hour Emergency Phone:** 1-800-561-8273  
**Medical Emergencies (Prosar):** 1-800-301-7976  
**Additional Emergency Phone (Canutec):** 1-613-996-6666 (Collect)

**CHEMICAL IDENTITY:** Zineb; zinc ethylenebis(dithiocarbamate) (polymeric)  
**PRODUCT USE:** Fungicide – Group M  
**PCP REG. NO.:** 9318  
**MSDS Number:** 9318-08-UAP

**MSDS Revisions:** All sections

**Date of Issue:** 01/07/08

**Supersedes:** 01/07/05

**2. HAZARDS IDENTIFICATION SUMMARY**

**KEEP OUT OF REACH OF CHILDREN – CAUTION - POISON.** May cause irritation of nose and throat. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling, and before eating, drinking or smoking. Avoid breathing dust or spray mist. Primary routes of entry are Inhalation, eye contact and skin contact.

This product is white-colored powder with negligible odor.

**3. COMPOSITION, INFORMATION ON INGREDIENTS**

| <u>Chemical Ingredients:</u> | <u>Percentage by Weight:</u> | <u>CAS No.</u> | <u>TLV (Units)</u> |
|------------------------------|------------------------------|----------------|--------------------|
| Zineb                        | 80.00                        | 12122-67-7     | Not listed         |

**4. FIRST AID MEASURES**

- If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.
- If in eyes:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
- NOTE TO PHYSICIAN:** No specific antidote. Treat symptomatically. May pose an aspiration pneumonia hazard. Probable mucosal damage may contraindicate the use of gastric lavage. A suspension of 30 to 50 grams of activated charcoal can be given for smaller amounts or to absorb remaining toxicant.

**FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-301-7976.** Have the product label or container with you when calling a poison control centre or doctor, or going for treatment.

**5. FIRE FIGHTING MEASURES**

- FLASH POINT (°F/Test Method):** Not applicable
- FLAMMABLE LIMITS (LFL & UFL):** Not established
- EXTINGUISHING MEDIA:** Foam, dry chemical, or CO<sub>2</sub>.
- HAZARDOUS COMBUSTION PRODUCTS:** Thermal decomposition will generate carbon disulfide and other asphyxiants.
- SPECIAL FIRE FIGHTING PROCEDURES:** Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.
- UNUSUAL FIRE AND EXPLOSION HAZARDS:** This product is flammable on contact with water, flames or sparks. Dust may be explosive if mixed with air in critical proportions.

**6. ACCIDENTAL RELEASE MEASURES**

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:**

Avoid breathing dusts. Sweep up spills and transfer to approved chemical containers for disposal or rework. Keep dusting to a minimum. Check local, state and federal regulations for proper disposal. Check local or provincial regulations for proper disposal. Flush the area with water to remove any residue.

**CAUTION:** Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

**7. HANDLING AND STORAGE**

**HANDLING:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**STORAGE:** Not for use or storage in or around the house. Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, fold and roll back bags, clamp and close tightly. Do not contaminate water, food or feed by storage and disposal.

**Personal Protective Equipment: Applicators and other handlers must wear:** long sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material, and shoes plus socks. Follow manufacturer's instructions for cleaning and maintaining PPE. If no instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets with requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**RESPIRATORY PROTECTION:** Not normally required. If vapors or dusts exceed acceptable levels, wear a NIOSH approved pesticide respirator.

**EYE PROTECTION:** Chemical goggles or shielded safety glasses.

**SKIN PROTECTION:** Wear protective clothing: long-sleeved shirts and pants, shoes with socks. Wear rubber or chemical-resistant gloves.

|                       | <b>OSHA PEL 8 hr TWA</b>          | <b>ACGIH TLV-TWA</b> |
|-----------------------|-----------------------------------|----------------------|
| Zineb                 | not established                   | not established      |
| Nuisance Particulates | 15 mg/m <sup>3</sup> (total dust) | not established      |

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**APPEARANCE AND ODOUR:** White-colored powder with negligible odor

**SPECIFIC GRAVITY (Water = 1):** 1.74 g/ml

**VAPOUR PRESSURE:** < 7.50 mm Hg @ 20°C

**PERCENT VOLATILE (by volume):** Not applicable

**Note:** These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

**BULK DENSITY:** 1739.9 kg/m<sup>3</sup>

**BOILING POINT:** Not applicable

**EVAPORATION RATE:** Not applicable

**SOLUBILITY:** Disperses

**pH:** Not established

**10. STABILITY AND REACTIVITY**

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Excessive heat. Spontaneously combustible in the presence of moisture.

**INCOMPATIBILITY:** Corrodes copper and iron metals when in the presence of moisture.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition will generate carbon disulfide and other asphyxiants.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**11. TOXICOLOGICAL INFORMATION**

**Acute Oral LD<sub>50</sub> (male rat):** 1850 - 8900 mg/kg

**Eye Irritation (rabbit):** Irritant

**Inhalation LC<sub>50</sub> (male rat):** 800 mg/m<sup>3</sup> (4H)

**Carcinogenic Potential:** Not listed in OSHA, NTP, or ACGIH. IARC lists Zineb in Group 3 (Unclassifiable as to Carcinogenicity in Humans).

**Target Organs:** Liver and kidneys.

**Acute Dermal LD<sub>50</sub> (rabbit):** >2500 mg/kg

**Skin Irritation (rabbit):** Irritant

**Skin Sensitization (Guinea Pig):** Sensitizer

**12. ECOLOGICAL INFORMATION**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment wash waters or rinsate.

**13. DISPOSAL CONSIDERATIONS**

Do not reuse containers for any purpose. Completely empty bag into application equipment. Container is to be disposed of at a container collection site. Contact your local dealer/distributor for the location of the nearest collection site. Before taking container to the collection site: make the empty container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Do not contaminate water, food, or feed by storage or disposal.

**14. TRANSPORT INFORMATION**

**DOT/TDG Shipping Description:** NOT REGULATED

**U.S. Surface Freight Classification:** INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS; NOI; OTHER THAN POISON (NMFC 102120; CLASS: 60)

**IMDG Shipping Description:** NOT REGULATED

Consult appropriate ICAO/IATA regulations for shipment requirements in the Air shipping mode.

**15. REGULATORY INFORMATION**

**NFPA & HMIS Hazard Ratings:**

| NFPA           |            | HMIS           |  |
|----------------|------------|----------------|--|
| 1 Health       | 0 Least    | 1 Health       |  |
| 1 Flammability | 1 Slight   | 1 Flammability |  |
| 0 Instability  | 2 Moderate | 0 Reactivity   |  |
|                | 3 High     | H PPE          |  |
|                | 4 Severe   |                |  |

**SARA Hazard Notification/Reporting**

|  |           |          |          |          |                            |          |
|--|-----------|----------|----------|----------|----------------------------|----------|
| <b>SARA Title III Hazard Category:</b> | Immediate | <u>Y</u> | Fire     | <u>N</u> | Sudden Release of Pressure | <u>N</u> |
|  | Delayed   | <u>Y</u> | Reactive | <u>N</u> |                            |          |

**Reportable Quantity (RQ) under U.S. CERCLA:** Not listed  
**SARA, Title III, Section 313:** Zineb (CAS: 12122-67-7) 80.0%  
**RCRA Waste Code:** Not listed  
**CA Proposition 65:** Not listed

**16. OTHER INFORMATION**

**MSDS STATUS:** All sections revised to 16-section format

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental/ Regulatory Services

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