

**1 PRODUCT AND COMPANY IDENTIFICATION****Agrichemicals Group**

Elf Atochem North America, Inc.
2000 Market St.
Philadelphia, PA 19103-3222

EMERGENCY PHONE NUMBERS:

Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(303) 623-5716 (24Hrs)

Information Telephone Numbers	Phone Number	Available Hrs
R&D Technical Service	610-878-6100	8:00am to 5:00pm EST
Customer Service	1-800-438-6071	8:00am - 5:00 pm EST

Product Name PENNCOZEB 80 WP
Product Synonym(s) Mancozeb 80%
Chemical Family Dithiocarbamate
Chemical Formula $(C_4H_8MnN_2S_4)_x(Zn)_y$
Chemical Name Manganese Ethylenebis (Dithiocarbamate) Complex with Zinc Salt
EPA Reg Num 4581-358
Product Use Fungicide to control plant diseases.

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS RegistryNumber	Typical Wt. %	OSHA
Mancozeb	8018-01-7	80	Y
Ethylene thiourea	96-45-7	Trace	Y

The substance(s) marked with a "Y" in the OSHA column, are identified as hazardous chemicals according to the criteria of the OSHA Communication Standard (29 CFR 1910.1200)

3 HAZARDS IDENTIFICATION**Emergency Overview**

Gray - greenish yellow powder, slight sulphurous odor(cabbage-like)

CAUTION!

MAY CAUSE EYE IRRITATION.

HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN.

KEEP OUT OF REACH OF CHILDREN.

Avoid contact with eyes, skin and clothing.

Potential Health Effects

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. Based on single exposure animal tests, it is considered to be practically non-toxic if swallowed, no more than slightly toxic if absorbed through skin, slightly toxic if inhaled, slightly irritating to eyes and moderately irritating to skin.

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4 FIRST AID MEASURES

IF IN EYES, Flush eyes with plenty of water. Call a physician if irritation persists.

IF ON SKIN, Wash with plenty of soap and water. Get medical attention.

IF SWALLOWED, Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth and do not induce vomiting.

IF INHALED, Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

5 FIRE FIGHTING MEASURES

Fire and Explosive Properties

Auto-Ignition Temperature	NE	
Flash Point	137.8 deg C	Flash Point Method
Flammable Limits- Upper	N/A	
Lower	N/A	

Extinguishing Media

Use water spray, carbon dioxide, foam or dry chemical.

Fire Fighting Instructions

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

Fire and Explosion Hazards

Avoid breathing fumes from fire exposed material.

6 ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Contain spill. Sweep or scoop up and remove to suitable container. Flush with water. Prevent spilled product from entering sewers or natural water. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

7 HANDLING AND STORAGE

Handling

Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation.

Do not get in eyes, on skin or on clothing.

Do not breathe dust.

Storage

This material is not hazardous under normal storage conditions; however, material should be stored in closed

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7 HANDLING AND STORAGE

containers, in a secure area to prevent container damage and subsequent spillage. Store in original container. If allowed to become wet the product will deteriorate and represent a fire hazard.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Investigate engineering techniques to reduce exposures. Provide ventilation if necessary to minimize exposures. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Eye / Face Protection

Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment available.

Skin Protection

Minimize skin contamination by following good industrial hygiene practice. Wearing rubber gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

Respiratory Protection

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Airborne Exposure Guidelines for Ingredients

The components of this product have no established Airborne Exposure Guidelines

-Only those components with exposure limits are printed in this section.

-Skin contact limits designated with a "Y" above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.

-ACGIH Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic reactions.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor	Gray - greenish yellow powder, slight sulphurous odor(cabbage-like)
pH	NA
Specific Gravity	NA
Vapor Pressure	NA
Vapor Density	NA
Melting Point	Decomposes before melting
Freezing Point	NA
Boiling Point	NA
Solubility In Water	Dispersible
Evaporation Rate	NA
Percent Volatile	NA

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10 STABILITY AND REACTIVITY

Stability

This material is chemically stable under normal and anticipated storage and handling conditions.

Hazardous Polymerization

Does not occur.

Incompatibility

Strong acids, strong oxidizers, and dampness.

Hazardous Decomposition Products

Ethylene Thiourea and Carbon Disulfide.

11 TOXICOLOGICAL INFORMATION

Toxicological Information

Data on this material and/or its components are summarized below.

Single exposure (acute) studies indicate:

Oral - Practically Non-toxic to Rats (LD50 >5,000 mg/kg)

Dermal - No More than Slightly Toxic to Rabbits (LD50 >2,000 mg/kg)

Inhalation - Slightly Toxic to Rats (4-hr LC50 4.0 mg/l)

Eye Irritation - Slightly Irritating to Rabbits

Skin Irritation - Moderately Irritating to Rabbits

No skin allergy was observed in guinea pigs following repeated exposure. Repeated oral produced thyroid effects in dogs, rats and mice with possible neurotoxic effects in rats. Long-term studies in rats and mice produced no increased incidence of tumors. No adverse effects were observed when rats were exposed orally for 2 successive generations. Developmental effects were observed in the offspring of rats exposed orally during pregnancy, but only at amounts which produced significant adverse effects in the mother. No adverse effects were noted in the offspring of rabbits exposed orally during pregnancy.

12 ECOLOGICAL INFORMATION

Ecotoxicological Information

No data are available.

Chemical Fate Information

No data are available.

13 DISPOSAL CONSIDERATIONS

Waste Disposal

Recover, reclaim or recycle when practical. Dispose of in accordance with federal, state and local regulations.

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14 TRANSPORT INFORMATION

DOT Name	Environmentally hazardous substances, solid, n.o.s.
DOT Technical Name	Mancozeb
DOT Hazard Class	9
UN Number	3077
DOT Packing Group	PG III
RQ	
Marine Pollutant	yes
DOT Special Information	Penncozeb 80WP, when shipped domestically, by highway, in the U.S.A. can be shipped as Not Regulated under DOT.

15 REGULATORY INFORMATION

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370)

Immediate (Acute) Health	Y	Fire	Y
Delayed (Chronic) Health	N	Reactive	Y
		Sudden Release of Pressure	N

Ingredient Related Regulatory Information:

SARA Reportable Quantities	CERCLA RQ	SARA TPQ
Mancozeb	NE	
Ethylene thiourea	10 lbs.	NE

SARA Title III, Section 313

This product does contain chemical(s) which are defined as toxic chemicals under and subject to the reporting requirements of, Section 313 of Title III of the Superfund Ammendments and Reauthorization Act of 986 and 40 CFR Part 372. See Section 2
 Ethylene thiourea

California Prop 65 - Carcinogen

This product does contain the following chemical(s), as indicated below, currently on the California list of Known Carcinogens.
 Ethylene thiourea
 Mancozeb

California Prop 65 - Developmental Toxin

This product does contain the following chemical(s), as indicated below, currently on the California List of Developmental Toxins.
 Ethylene thiourea

Massachusetts Right to Know

This product does contain the following chemical(s), as indicated below, currently on the Massachusetts Right to Know Substance List.
 Ethylene thiourea

New Jersey Right to Know

This product does contain the following chemical(s), as indicated below, currently on the New Jersey Right-to-Know Substances List.
 Ethylene thiourea

Pennsylvania Environmental Hazard

This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Environmental Hazard List.
 Ethylene thiourea

Pennsylvania Right to Know

This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Hazardous Substance List.
 Ethylene thiourea

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Pennsylvania Special Hazard

This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Special Hazard List.

Ethylene thiourea

16 OTHER INFORMATION

Revision Information

Revision Date 26 OCT 2000 Revision Number 1
Supercedes Revision Dated

Revision Summary

Enter into MSDS System

Key

NE= Not Established NA= Not Applicable (R) = Registered Trademark

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