

Material Safety Data Sheet

CAS Number: 57966-95-7

CAS Name: Cymoxanil

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CYMOXANIL :2-Cyano-N-[(ethylamino)carbonyl]-2-(methyloxyimino)acetamide

INERT INGREDIENTS

HAZARDS IDENTIFICATION

Emergency Overview

WARNING! MAY BE FATAL IF SWALLOWED.

Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco

Potential Health Effects

Based on animal data, inhalation of Cymoxanil may cause eye irritation with tearing, pain or blurred vision, irritation of the nose and throat with sneezing, sore throat or runny nose, and incoordination.

Based on animal data, skin contact with Cymoxanil may cause irritation with itching, burning, redness, swelling or rash.

Based on animal data, eye contact with Cymoxanil may cause eye irritation with tearing, pain or blurred vision.

Based on animal data, ingestion of Cymoxanil may cause temporary central nervous system depression with dizziness, confusion, incoordination, drowsiness or unconsciousness, changes in hematology measurements, pathological changes in the liver, and weight loss.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

FIRST AID MEASURES

First Aid

IF SWALLOWED: Call poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

FIRE FIGHTING MEASURES

Flammable Properties

The material poses no explosion hazard in granular form.

Extinguishing Media

Water Spray, Foam, Dry Chemical, CO2.

Fire Fighting Instructions

Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Runoff from fire control may be a pollution hazard.

If area is exposed to fire and conditions permit, let fire burn itself out. Burning chemicals may produce by-products more toxic than the original material. If product is on fire, wear self-contained breathing apparatus and full protective equipment. Use water spray. Control runoff.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Emergency Response - Chemical resistant coveralls, waterproof gloves, waterproof boots and face/eye protection. If dusting occurs, use NIOSH approved respirator protection.

Initial Containment

Remove source of heat, sparks, flame, impact, friction or electricity.

Follow applicable Federal, State/Provincial and Local laws/regulations.

Prevent material from entering sewers, waterways, or low areas.

Spill Clean Up

Shovel or sweep up.

HANDLING AND STORAGE

Handling (Personnel)

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove personal protective equipment immediately after handling this product.

Do not breathe dust. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not store or consume food, drink or use tobacco in areas where they may become contaminated with this material.

Handling (Physical Aspects)

Avoid dust generation.

Storage

Keep container tightly closed. Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation.

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

Personal Protective Equipment

Always follow the label instructions when handling this product.

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.
Protective Gloves
Shoes plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is:

Coveralls over long sleeved shirt and long pants.
Chemical Resistant Gloves
Shoes Plus Socks

During aerial application, human flaggers must be in enclosed cabs.

Exposure Guidelines

Exposure Limits

Dupont "CURZATE" 60DF FUNGICIDE

PEL (OSHA) : None Established
TLV (ACGIH) : None Established
AEL * (DuPont) : 2 mg/m³, 8 & 12 Hr. TWA

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Solubility in Water : Dispersible
Odor : Bland (very faint)
Form : Solid, granule
Color : Brown
Bulk Density (Loose) : 39.1 lb/cu ft

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials

None reasonably foreseeable.

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

Overexposure to Cymoxanil by skin contact did not produce irritation in guinea pigs. In a repeated dermal exposure test with rats, the NOEL was 1000 mg/kg.

Effects of single exposure by ingestion of Cymoxanil included weight loss, altered righting reflexes, weakness, labored breathing, lethargy, incoordination, and nasal discharge. Repeated oral exposure caused increased liver weight, reduced weight gain, and testicular and epididymal histological changes. Other effects included diarrhea, altered hematology, lethargy, and increased mortality.

Long term exposure by ingestion of Cymoxanil caused decreased weights of body, brain, heart, liver, testes, spleen and thymus, degeneration of the nervous system, pathological changes of the liver, gastrointestinal tract, lungs, eyes, testes, sperm, bone

marrow, spleen and thymus, altered hematology, weakness and increased mortality.

Effects of single exposure by inhalation to high concentrations of Cymoxanil included diarrhea, altered respiratory rate, nasal and ocular discharge, changes in posture, decreased motor activity, tremors and lethargy.

In animal testing Cymoxanil has not caused carcinogenicity. Animal testing show developmental effects only at similar exposure levels producing other toxic effects in the adult animal. Tests have shown Cymoxanil to cause reproductive toxicity in animals, however, only at levels producing toxic effects in the adult animal. Cymoxanil has not produced genetic damage in bacterial cultures. In mammalian cell cultures Cymoxanil has caused genetic toxicity. It has not produced genetic damage in tests on animals. In animal testing, Cymoxanil has not caused permanent genetic damage in reproductive cells of mammals (has not produced heritable genetic damage).

Acute Animal Data for "CURZATE" 60DF Fungicide:

Acute Oral LD50 (rat): >433 mg/kg.

Acute Dermal LD50 (rat): >2000 mg/kg (based on no mortality at this level, the highest level tested).

Skin Irritation and Sensitization: Product was found to be non-irritant in acute primary irritation studies with rabbits. The product is not a skin sensitizer.

Eye: Produced acute ocular irritation in tests with rabbits. Effects showed total reversibility by day 7.

ECOLOGICAL INFORMATION

Ecotoxicological Information

AQUATIC TOXICITY:

CYMOXANIL

96 hour LC50 - Rainbow trout: 61 mg/L.

96 hour LC50 - Bluegill sunfish: 29 mg/L.

AVIAN TOXICITY:

CYMOXANIL

LD50 - Bobwhite Quail: > 2250 mg/kg.

LD50 - Mallard Duck: > 2250 mg/kg.

LC50 - Bobwhite Quail: > 5620 ppm.

LC50 - Mallard Duck: > 5620 ppm

DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

Do not contaminate water supply, food or feed by storage or disposal. Do not flush to surface water or sanitary sewer system. Wastes resulting from the use of this product may be disposed of

on site or at an approved waste disposal facility.

Container Disposal

Completely empty bag into application equipment.
Then dispose of empty bag in a sanitary landfill or by
incineration or, if allowed by state and local authorities, by
burning. If burned, stay out of smoke.

TRANSPORTATION INFORMATION

Shipping Information

DOT/IMO
Proper Shipping Name : NOT REGULATED

Shipping Information -- Canada

This material is Not Regulated.

REGULATORY INFORMATION

U.S. Federal Regulations

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes
Chronic : Yes
Fire : No
Reactivity : No
Pressure : No

EPA Reg. No. 352-592

Canadian Regulations

Regulated under the Pest Control Products Act--WHMIS Exempt

OTHER INFORMATION

The data in this Material Safety Data Sheet relates only to the
specific material designated herein and does not relate to use in
combination with any other material or in any process.

This information is based upon technical information believed to be
reliable. It is subject to revision as additional knowledge and
experience is gained.

End of MSDS