



The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

DuPont
Material Safety Data Sheet

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"DuPont" "CURZATE" 60DF FUNGICIDE
M0000401 Revised 11-SEP-2003

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

CURZATE is a registered trademark of DuPont.

"DuPont" is a trademark of DuPont.

Corporate MSDS Number : DU007343

Tradenames and Synonyms

DPX-T3217
CURZATE

Company Identification

MANUFACTURER/DISTRIBUTOR
DuPont
1007 Market Street
Wilmington, DE 19898

PHONE NUMBERS

Product Information : 1-800-441-7515 (outside the U.S.
302-774-1000)
Transport Emergency : CHEMTREC 1-800-424-9300(outside U.S.
703-527-3887)
Medical Emergency : 1-800-441-3637 (outside the U.S.
302-774-1000)

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
CYMOXANIL	57966-95-7	60
2-Cyano-N-[(ethylamino)carbonyl]-2-(methoxyimino)acetamide		
INERT INGREDIENTS		40

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, skin contact with Curzate 60DF may cause temporary reversible irritation with itching, redness, swelling or rash.

Based on animal data, eye contact with Curzate 60DF may cause temporary reversible eye irritation with tearing, pain or blurred vision.

Based on animal data from the active ingredient, ingestion of Curzate 60DF 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.

Based on animal data, inhalation of Curzate 60DF may cause irritation of the respiratory tract with sneezing or runny nose.

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 INHALED: Inhalation toxicity is not expected to occur, but contact a physician if symptoms are noted.

IF ON SKIN OR CLOTHING: Skin irritation is expected to be minimal to nonexistent, but contact a physician if irritation persists.

IF IN EYES: Eye irritation is expected to be minimal to nonexistent, but contact a physician if irritation persists.

IF SWALLOWED: Call 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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

(FIRST AID MEASURES - Continued)

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.

(ACCIDENTAL RELEASE MEASURES - Continued)

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 when not in use. Store product in original container only, away from other pesticides, fertilizer, food or feed.

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 Worker 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.
Shoes plus socks.

Discard clothing and other absorbent materials that have

(EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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 made of any waterproof material such as polyethylene or polyvinyl chloride.
Shoes plus socks.

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

Exposure Guidelines

Applicable Exposure Limits

CYMOXANIL

PEL (OSHA)	: None Established
TLV (ACGIH)	: None Established
AEL * (DuPont)	: 2 mg/m ³ , 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.

(STABILITY AND REACTIVITY - Continued)

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

Curzate 60DF

Oral LD50:	433 mg/kg in rats (Moderately toxic)
Dermal LD50:	> 5000 mg/kg in rats (Very low to Slightly toxic)
Inhalation 4 hour LC50:	> 5.0 mg/L in rats (Very low toxicity)

Curzate 60DF is a reversible slight to moderate skin irritant, and a reversible slight eye irritant, but is not a skin sensitizer in animals.

CYMOXANIL

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 to high concentrations caused body and organ weight decreases, pathological changes of the liver, gastrointestinal tract, lungs, eyes, nerves, 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

(TOXICOLOGICAL INFORMATION - Continued)

damage in reproductive cells of mammals (has not produced heritable genetic damage).

ECOLOGICAL INFORMATION

Ecotoxicological Information

AQUATIC TOXICITY:

CYMOXANIL

96 hour LC50 - Rainbow trout: 61 mg/L.
96 hour LC50 - Bluegill sunfish: 29 mg/L.
48 hour EC50 - Daphnia magna: 27 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.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, or to areas where surface water is present or to inter-tidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

PRODUCT DISPOSAL: Do not contaminate water, food or feed by storage or disposal. 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

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

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.

Responsibility for MSDS : DuPont Crop Protection
Wilmington DE 19898
Telephone : 1-888-638-7668

Indicates updated section.

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