Material Safety Data Sheet

**DuPont™ Tanos® Fungicide**

Version 2.1

Revision Date 02/28/2017  Ref. 130000000560

This SDS adheres to the standards and regulatory requirements of Canada and may not meet the regulatory requirements in other countries.

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

- **Product name**: DuPont™ Tanos® Fungicide
- **Tradename/Synonym**: B10480592  
  DPX-KP481 50DF  
  DPX-KP481 WG  
  Tanos 50DF  
  Tanos 50WG  
  Famoxadone: 2,4-Oxazolidinedione, 5-methyl-5-(4-phenoxyphenyl)-3-(phenylamino)-  
  Cymoxanil: Acetamide, 2-cyano-N-[(ethylamino)carbonyl]-2-(methoxyimino)-
- **SDS Number**: 130000000560
- **Product Use**: Fungicide
- **Manufacturer**: E.I. du Pont Canada Company  
  P.O. Box 2200, Streetsville  
  Mississauga, ON  
  L5M 2H3  
  Canada
- **Product Information**: 1-800-387-2122
- **Medical Emergency**: 1-800-441-3637 (24 hours)

### SECTION 2. HAZARDS IDENTIFICATION

- **Potential Health Effects**
  - **Skin**
    - **Famoxadone**: May cause: Itching, Redness, Swelling.
    - **Cymoxanil**: May cause: Irritation with discomfort or pain, redness or rash, itching or swelling.
  - **Eyes**
    - **Famoxadone**: May cause: Eye irritation, tearing, Pain, Blurred vision.
### Cymoxanil
- **Inhalation**: Exposure may result in reddening, tears and itching of the eyes and soreness in the nose and throat, together with coughing.
- **Ingestion**: May cause: altered blood chemistry, Central nervous system depression, dizziness, confusion, incoordination, drowsiness, or unconsciousness, Liver effects.

### Famoxadone
- **Ingestion**: May cause: Abnormal liver function, Abnormal formation of blood cells, clouding of the eye.

### Target Organ
- **Famoxadone**: Eyes

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

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Famoxadone</td>
<td>131807-57-3</td>
<td>25 %</td>
</tr>
<tr>
<td>Cymoxanil</td>
<td>57966-95-7</td>
<td>25 %</td>
</tr>
<tr>
<td>Other Ingredients</td>
<td></td>
<td>50 %</td>
</tr>
</tbody>
</table>
Skin contact : Take off all contaminated clothing immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Eye contact : Hold eye 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. Hold eyelid of affected eye open with thumb and index finger and rinse eye thoroughly with clean water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a physician or ophthalmologist.

Inhalation : Remove person to fresh air. If signs/symptoms continue, get medical attention. Artificial respiration and/or oxygen may be necessary. Call a poison control center or doctor for treatment advice.

Ingestion : Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Do not give anything by mouth to an unconscious person.

General advice : Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5. FIREFIGHTING MEASURES

Flammable Properties
Flash point : Not applicable

Suitable extinguishing media : Water spray, Foam, Dry chemical, Carbon dioxide (CO2)

Unsuitable extinguishing media : High volume water jet, (contamination risk)

Firefighting Instructions : Wear full protective clothing and self-contained breathing apparatus. (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers/tanks with water spray.
SECTION 6. ACCIDENTAL RELEASE MEASURES

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

Safeguards (Personnel) : Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus. Use personal protective equipment.

Spill Cleanup : Sweep up and shovel into suitable containers for disposal.

Accidental Release Measures : Prevent material from entering sewers, waterways, or low areas. Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE

Handling (Personnel) : Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing.

Handling (Physical Aspects) : Keep away from heat and sources of ignition.

Storage : Store in original container. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Personal protective equipment
Hand protection : Material: Chemical-resistant gloves

Skin and body protection : Applicators and other handlers must wear:
- Long sleeved shirt and long pants
- Chemical-resistant gloves, Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all greater than or equal to 14 mils
- Shoes plus socks
- 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
  - Chemical-resistant gloves, Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all greater than or equal to 14 mils
  - Shoes plus socks

Protective measures : Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Exposure Guidelines

Exposure Limit Values

<table>
<thead>
<tr>
<th>Compound</th>
<th>AEL *</th>
<th>(DuPont)</th>
<th>Limit</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Famoxadone</td>
<td></td>
<td>2 mg/m³</td>
<td>8 hr. TWA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AEL *</td>
<td>(DuPont)</td>
<td>1 mg/m³</td>
<td>12 hr. TWA</td>
</tr>
<tr>
<td>Cymoxanil</td>
<td>AEL *</td>
<td>(DuPont)</td>
<td>2 mg/m³</td>
<td>15 minute TWA</td>
</tr>
</tbody>
</table>

* 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>solid</td>
</tr>
<tr>
<td>Color</td>
<td>brown</td>
</tr>
</tbody>
</table>

5 / 10
Odor : sweet
pH : ca. 6 at 10 g/l 20 °C (68 °F)
Bulk density : 600 kg/m3
Water solubility : dispersible

SECTION 10. STABILITY AND REACTIVITY
Stability : Stable at normal temperatures and storage conditions.
Conditions to avoid : None reasonably foreseeable.
Hazardous decomposition products : Carbon oxides, Nitrogen oxides (NOx)
Hazardous reactions : Polymerization will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION
DuPont™ Tanos® Fungicide

Inhalation 4 h LC50 : > 5.1 mg/l , Rat
Dermal LD50 : > 5,000 mg/kg , Rat
Oral LD50 : 1,732 mg/kg , male, Rat
Oral LD50 : 566 mg/kg , female, Rat
Skin irritation : No skin irritation, Rabbit
Eye irritation : No eye irritation, Rabbit
Sensitisation : May cause sensitisation by skin contact., Guinea pig
Famoxadone

Repeated dose toxicity : The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions.

Oral - feed
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Dog
Target Organs: Eyes
eye effects

Oral - feed
Rat

Reduced body weight gain, Organ weight changes, Increased liver enzyme levels in serum, Liver effects, Red blood cell destruction causing abnormal decrease in number of red blood cells (anaemia)

Dermal
Rat

Increased liver weight, Increased liver enzyme levels in serum

Carcinogenicity : Did not show carcinogenic effects in animal experiments. Not classifiable as a human carcinogen.

Reproductive toxicity : No toxicity to reproduction
Animal testing showed effects on reproduction at levels equal to or above those causing parental toxicity.

Teratogenicity : Animal testing showed no developmental toxicity.

Cymoxanil
Repeated dose toxicity :
The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions.

Oral
multiple species

Target Organs: Blood, thymus
altered blood chemistry, No effect to neurotoxicity.

Oral - feed
Dog
90 d
Target Organs: thymus
Thymus effects

Carcinogenicity : Not classifiable as a human carcinogen.
Did not show carcinogenic effects in animal experiments.
Reproductive toxicity: No toxicity to reproduction

Teratogenicity: Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity

DuPont™ Tanos® Fungicide

96 h LC50: Oncorhynchus mykiss (rainbow trout) 0.0287 mg/l

Famoxadone

72 h EbC50: Pseudokirchneriella subcapitata (green algae) 0.023 mg/l

72 h ErC50: Pseudokirchneriella subcapitata (green algae) 0.048 mg/l

48 h EC50: Daphnia magna (Water flea) 0.012 mg/l

48 h EC50: Daphnia magna (Water flea) 0.0118 mg/l

90 d: NOEC Oncorhynchus mykiss (rainbow trout) 0.0014 mg/l

21 d: NOEC Daphnia magna (Water flea) 0.0037 mg/l

Cymoxanil

72 h ErC50: Pseudokirchneriella subcapitata (green algae) 2.39 mg/l OECD Test Guideline 201

48 h EC50: Daphnia magna (Water flea) 27 mg/l

21 d: NOEC Oncorhynchus mykiss (rainbow trout) 0.22 mg/l

21 d: NOEC Daphnia magna (Water flea) 0.067 mg/l

Additional ecological information: Environmental Hazards: 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 may be hazardous to aquatic organisms in water adjacent to treated areas. See product label for additional application instructions relating to environmental precautions.
SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal: Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container disposal: Refer to the product label for instructions. Do not transport if this container is damaged or leaking.

SECTION 14. TRANSPORT INFORMATION

IATA_C
- UN number: 3077
- Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Famoxadone, Cymoxanil)
- Class: 9
- Packing group: III
- Labelling No.: 9MI

IMDG
- UN number: 3077
- Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
- Class: 9
- Packing group: III
- Labelling No.: 9

Marine pollutant: yes (Famoxadone, Cymoxanil)

Not regulated by DOT/49 CFR unless shipped in bulk package or by water. Marine Pollutants assigned UN number 3077 and 3082 in single or combination packaging containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code, IATA special provision A197, and ADR/RID special provision 375.
SECTION 15. REGULATORY INFORMATION

EPA Reg. No. : 352-604
In the United States this product is regulated by the US Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

PCP Registration # : 27435
Remarks : Regulated under the Pest Control Products Act - WHMIS exempt.

SECTION 16. OTHER INFORMATION

MSDS preparation date : 02/28/2017

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Contact person : E.I. DuPont Canada Company, Mississauga, Ontario, L5M 2H3

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