

**DuPont™ Vertisan™ Fungicide**

Version 2.2

Revision Date 12/12/2014

Ref. 130000036424

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™ Vertisan™ Fungicide
Tradename/Synonym : DPX-LEM17 200 g/L EC
DPX-LEM17 20 EC Fungicide
PENTHIOPYRAD (RS)-N-[2-(1,3-dimethylbutyl)thiophen-3-yl]-1-methyl-3-trifluoromethyl-1H-pyrazole-4-carboxamide

MSDS Number : 130000036424

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

Emergency Overview

Warning

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear goggles, face shield or safety glasses. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. May be harmful if swallowed. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before re-use.

This product is toxic to fish.

Potential Health Effects

This section includes potential acute adverse effects which could occur if this material is not used according to the label.

Eyes : May cause: Irritation with discomfort, pain, redness, or visual impairment.

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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

Component	CAS-No.	Concentration
Penthiopyrad	183675-82-3	20.6 %
Other Ingredients		79.4 %

SECTION 4. FIRST AID MEASURES

- Skin contact** : The material is not likely to be hazardous by skin contact, but cleaning the skin after use is advisable.
- 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.
- Inhalation** : No specific intervention is indicated as the compound is not likely to be hazardous. Consult a physician if necessary.
- 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.
For medical emergencies involving this product, call toll free 1-800-441-3637.
See Label for Additional Precautions and Directions for Use.



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SECTION 5. FIREFIGHTING MEASURES

Flammable Properties

Flash point : 88 °C (190 °F)
Method : Pensky-Martens closed cup - PMCC

Ignition temperature : 250 °C (482 °F)

Fire and Explosion Hazard : Hazardous combustion products: Carbon oxides Nitrogen oxides (NOx) sulphur oxides Fluorinated compounds

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

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

Firefighting Instructions : Wear full protective clothing and self-contained breathing apparatus. Wear full protective equipment. Prevent fire extinguishing water from contaminating surface water or the ground water system. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
(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) : Control access to area. Keep people away from and upwind of spill/leak. Ventilate spill area. Take precautionary measures against static discharges. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.

Spill Cleanup : Clean-up methods - small spillage Soak up with inert absorbent material.



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Sweep up and shovel into suitable containers for disposal.
 Clean-up methods - large spillage Prevent further leakage or spillage. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Large spills should be collected mechanically (remove by pumping) for disposal. Collect leaking liquid in sealable (metal/plastic) containers. Collect and contain contaminated absorbent and dike material 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 clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing. 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.

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

Storage : Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store product in original container only in a location inaccessible to children and pets. Keep in properly labelled containers. Keep in a dry, cool and well-ventilated place. Avoid extreme heat or cold. Keep container closed when not in use. Keep locked up or in an area accessible only to qualified or authorised persons. Keep out of the reach of children. Observe label precautions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls : 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
 Skin and body protection : Mixers, loaders, applicators and other handlers must wear:



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Long sleeved shirt and long pants
Shoes plus socks
Protective eyewear
Goggles, face shield, or safety glasses.
Personal protective equipment required for early entry:
Coveralls
Shoes plus socks
Chemical resistant gloves made of any waterproof material
Protective eyewear
Goggles, face shield, or safety glasses.

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.
Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. Use this product in accordance with its label.

Exposure Guidelines
Exposure Limit Values

Contains no substances with occupational exposure limit values.

None established.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid
Color : light yellow
Odor : like fruit
pH : 5.8 at 10 g/l
Oxidising Substance : The product is not oxidizing.
Specific gravity : 0.9681
Water solubility : emulsifiable

SECTION 10. STABILITY AND REACTIVITY

Stability : Stable at normal temperatures and storage conditions.



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Conditions to avoid : Protect from frost. Heat. Direct sunlight.

Hazardous decomposition products : Carbon oxides, Nitrogen oxides (NOx), sulphur oxides, Fluorinated compounds

SECTION 11. TOXICOLOGICAL INFORMATION

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Inhalation 4 h LC50 : > 4.89 mg/l , Rat

Dermal LD50 : > 5,000 mg/kg , Rat

Oral LD50 : > 5,000 mg/kg , Rat

Skin irritation : No skin irritation, Rabbit

Eye irritation : Irritating to eyes., Rabbit

Sensitisation : Causes sensitisation., Mouse

Penthiopyrad

Repeated dose toxicity :

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

Oral
multiple species

Reduced body weight gain, Liver effects, Thyroid effects, Spleen effects, Gallbladder effects, Liver enlargement, Immune system effects, altered blood chemistry, altered hematology, Organ weight changes, Decreased spleen weight, Increased liver weight

Carcinogenicity : Not classifiable as a human carcinogen.
The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions.
A slight increased incidence in tumors was observed in animal studies.

Mutagenicity : Animal testing did not show any mutagenic effects.
Did not cause genetic damage in cultured bacterial cells.
Genetic damage in cultured mammalian cells was observed in some laboratory tests but not in others.



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- Reproductive toxicity : No toxicity to reproduction
Animal testing did not show any effects on fertility.
- Teratogenicity : No toxicity to reproduction
The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions.
Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity

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96 h LC50 : Pimephales promelas (fathead minnow) 0.32 mg/l

48 h EC50 : Daphnia magna (Water flea) 1.2 mg/l

Penthiopyrad

72 h EbC50 : Pseudokirchneriella subcapitata (green algae) > 1.5 mg/l

Additional ecological information : Environmental Hazards: This product is toxic to fish. For Terrestrial Uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. 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.

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SECTION 14. TRANSPORT INFORMATION

IATA_C	UN number	: 3082
	Proper shipping name	: Environmentally hazardous substance, liquid, n.o.s. (Penthiopyrad)
	Class	: 9
	Packing group	: III
	Labelling No.	: 9MI
IMDG	UN number	: 3082
	Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Penthiopyrad)
	Class	: 9
	Packing group	: III
	Labelling No.	: 9
	Marine pollutant	: yes (Penthiopyrad)

Not regulated by DOT/49 CFR unless shipped in bulk package or by water.

Not regulated by TDG when transported solely on land by road or railway vehicle.

SECTION 15. REGULATORY INFORMATION

PCP Registration #	: 30332
Remarks	: Regulated under the Pest Control Products Act - WHMIS exempt.

SECTION 16. OTHER INFORMATION

MSDS preparation date : 12/12/2014

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

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