



Material Safety Data Sheet

Presidio™ Fungicide

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Presidio™ Fungicide
PCPA REGISTRATION NUMBER: 30051
VC NUMBER(S): 1635
SYNONYM(S): Fluopicolide 4 SC
PRODUCT DESCRIPTION: Fungicide

MANUFACTURER/DISTRIBUTOR

VALENT CANADA, INC.
6-130 Research Lane
Guleph, Ontario N1G 5G3

EMERGENCY TELEPHONE NUMBERS

HEALTH EMERGENCY OR SPILL (24 hr):
(800) 682-5368
TRANSPORTATION (24 hr.): CHEMTREC
(800) 424-9300 or (202) 483-7616

Product Information

AGRICULTURAL PRODUCTS: (800) 682-5368

The current MSDS is available through our website (www.valent.ca) or by calling the product information number(s) listed above.

2. HAZARDS IDENTIFICATION

Emergency Overview

Caution

- Harmful if swallowed, inhaled or absorbed through skin
- Causes moderate eye irritation.
- Avoid contact with eyes, skin and clothing
- Avoid breathing vapors or spray mist.
- Highly toxic to fish.
- May cause long-term adverse effects in the aquatic environment.
- Keep out of reach of children

POTENTIAL HEALTH EFFECTS

Acute Toxicity (Primary Routes of Exposure): None known

Acute Eye Contact: This product can cause moderate eye irritation. The expected adverse health effects resulting from an exposure may include redness and possible swelling.

Acute Skin Contact: This product is not expected to cause allergic skin reactions. This product may cause minor skin irritation and / or short term. If exposed, the expected adverse health effects may include irritation and possibly a slight inflammation. This product is harmful if absorbed through the skin.

Acute Ingestion: This product is slightly toxic when ingested.

Acute Inhalation: This product is harmful if inhaled.

Emergency Telephone: 800-682-5368
REVISION NUMBER: 2

MSDS NO.: CAN-0366
REVISION DATE: 04/21/2011

Chronic Toxicity (including cancer): Fluopicolide Technical produced liver tumors in high dose studies in mice, but is unlikely to be carcinogenic to humans. This product is not listed as a carcinogen by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA) or ACGIH.

Developmental Toxicity (birth defects): Fluopicolide Technical did not produce developmental effects in animal experiments.

Reproductive toxicity: No reproductive effects were observed in animal studies.

Signs and Symptoms of Systemic Effects: The information provided is based on the technical material or a similar product.

Potentially Aggravated Medical Conditions: None known

For complete discussion of the toxicology data from which this evaluation was made, refer to Section 11. For Ecotox/Environmental Information, refer to Section 12. For Regulatory Information, refer to Section 15.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight/ Percent	Purpose
Fluopicolide (2,6-dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide)	239110-15-7	38 - 41	Active ingredient
Others	Various CAS#s	59 - 62	Other Ingredients

Other ingredients, which are maintained as trade secrets, are any substances other than an active ingredient contained in this product. Some of these may be hazardous, but their identity is withheld because they are considered trade secrets. The hazards associated with the other ingredients are addressed in this document. Specific information on other ingredients for the management of exposures, spills, or safety assessments can be obtained by a treating physician or nurse by calling **(800) 682-5368** at any time.

4. FIRST AID MEASURES

EMERGENCY NUMBER (800) 682-5368

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **1-800-682-5368** for emergency medical treatment information.

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 centre or doctor for treatment advice.

Skin contact:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

Ingestion:

Call a poison control centre 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 centre or doctor. Do not give anything by mouth to an unconscious person.

Inhalation:

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

Notes to physician:

Treatment is supportive and symptomatic.

5. FIRE FIGHTING MEASURES

FLASH POINT: >100° C (212° F)
AUTOIGNITION: > 470° C (878° F) (This product is not self-ignitable.)
EXTINGUISHING MEDIA: Water fog, carbon dioxide, foam, sand
FLAMMABLE LIMITS IN AIR - LOWER (%): Not applicable
FLAMMABLE LIMITS IN AIR - UPPER (%): Not applicable

NFPA Rating:
 Health: 1
 Flammability: 0
 Reactivity: 0
 Special: None

(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using professional judgement. Values were not available in the guidelines or published evaluations prepared by the National Fire Protection Association, NFPA.

Fire fighting instructions: Products of combustion from fires involving this material may be toxic. Avoid breathing smoke and mists. Avoid personnel and equipment contact with fallout and runoff. Minimize the amount of water used for fire fighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Decontaminate personal protective equipment and fire fighting equipment before reuse.

6. ACCIDENTAL RELEASE MEASURES

VALENT EMERGENCY PHONE NUMBER: (800) 682-5368
CHEMTREC EMERGENCY PHONE NUMBER: (800) 424-9300
OBSERVE PRECAUTIONS IN SECTION 8: PERSONAL PROTECTION

Stop the source of the spill if safe to do so. Contain the spill to prevent further contamination of the soil, surface water, or ground water. For additional spill response information refer to the **North American Emergency Response Guidebook**.

UN/NA Number: Not applicable **Emergency Response Guidebook No.:** Not applicable

FOR SPILLS ON LAND:

CONTAINMENT: Avoid runoff into storm sewers and ditches which lead to waterways. Contain spilled liquids with dry sorbents.

CLEANUP: Clean up spill immediately. Absorb spill with inert material (such as dry sand or earth), then place in a chemical waste container. Wash area with soap and water. Pick up wash liquid with additional absorbent and place in a chemical waste container.

FOR SPILLS IN WATER:

CONTAINMENT: This material will disperse or dissolve in water. Stop the source of the release. Contain and isolate to prevent further release into soil, surface water and ground water.

CLEANUP: Clean up spill immediately. Absorb spill with inert material (such as dry sand or earth), then place in a chemical waste container. Wash area with soap and water. Pick up wash liquid with additional absorbent and place in a chemical waste container.

7. HANDLING AND STORAGE

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

Handling:

Keep pesticide in original container. Do not store or transport near food or feed. Do not contaminate food or feed. Do not put concentrate into food or drink containers. Do not dilute concentrate in food or drink containers.

Storage:

Do not contaminate water, food or feed by storage or disposal. Keep pesticide in original container only. Store in a cool, dry, secure place. Do not put concentrate into food or drink containers. Do not dilute concentrate in food or drink containers. Not for use or storage in or around the home. Do not store at temperatures below 32°F (0°C). If the product is exposed to temperatures below 32°F (0°C), thaw at room temperature to 50°F (10°C) or warmer and shake gently to unify the product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

EYES & FACE: Do not get this material in your eyes. Eye contact can be avoided by wearing protective eyewear.

RESPIRATORY PROTECTION: Use this material only in well ventilated areas. Unless ventilation is adequate to keep airborne concentrations below recommended exposure standards, approved respiratory protection should be worn.

SKIN & HAND PROTECTION: Avoid contact with skin or clothing. Skin contact should be minimized by wearing protective clothing including gloves. Remove soiled clothing immediately and wash before re-use. Avoid contact with the skin and the eyes. Wash hands before breaks and at the end of the day. Garments that cannot be cleaned must be destroyed (burned).

Exposure limits

Chemical Name	Canadian OELs
Fluopicolide (2,6-dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide)	none
Others	none

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM:	Aqueous Flowable
COLOUR:	beige
ODOUR:	Odorless
FLASH POINT:	>100° C (212° F)
Density:	10.1 lb/gal
VAPOUR PRESSURE:	8.03 x 10 ⁻⁷ Pa @ 25° C (Fluopicolide TG)
pH:	7.0 - 8.5
SOLUBILITY:	Dispersible in water

10. STABILITY AND REACTIVITY

Chemical stability:	Stable at normal ambient temperatures.
Incompatibility:	None known
Oxidation/Reduction properties:	No chemical incompatibility in contact with reducing (zinc powder) or oxidizing (ammonium nitrate) agents.
Explosibility:	No shock sensitivity or thermal sensitivity to explosion. Not explosive.

Emergency Telephone: 800-682-5368
 REVISION NUMBER: 2

MSDS NO.: CAN-0366
 REVISION DATE: 04/21/2011

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

The following information is for this product formulation.

Oral Toxicity LD ₅₀ (rats)	> 2,000 mg/kg	EPA Tox Category	III
Dermal Toxicity LD ₅₀ (rats)	> 4,000 mg/kg	EPA Tox Category	III
Inhalation Toxicity LC ₅₀ (rats)	> 1.789 mg/L	EPA Tox Category	III
Eye Irritation (rabbits)	Moderately irritating	EPA Tox Category	III
Skin Irritation (rabbits)	Non-irritating	EPA Tox Category	IV
Skin Sensitization (guinea pigs)	Non-sensitizer (Buehler)	EPA Tox Category	Not applicable

CARCINOGEN CLASSIFICATION

Chronic/Carcinogenicity: The liver and kidney are target organs in high dose animal experiments. Fluopicolide Technical did not cause cancer in rats, but produced benign liver tumors in mice at the maximum tolerated dose. The mechanism of liver tumor formation in the mouse is believed to be not relevant to humans.

Developmental Toxicity: Fluopicolide Technical did not cause any teratogenic effects in animal experiments. Ingestion of excessive amounts by pregnant animals resulted in maternal and fetal toxicity.

Reproduction: No indications of reprotoxic effects were observed in reproduction studies in animals.

Mutagenicity: Fluopicolide Technical is not genotoxic.

For a summary of the potential for adverse health effects from exposure to this product, refer to Section 2. For information regarding regulations pertaining to this product, refer to Section 15.

12. ECOLOGICAL INFORMATION

AVIAN TOXICITY: Based upon EPA designation, fluopicolide technical is practically non-toxic to avian species. The following results were obtained from studies with fluopicolide technical:

Oral LD₅₀ mallard duck: greater than 2250 mg/kg
 Dietary LC₅₀ bobwhite quail: greater than 5620 ppm
 Dietary LC₅₀ mallard duck: greater than 5620 ppm

AQUATIC ORGANISM TOXICITY: Based upon EPA designation, flupicolide technical may be highly toxic to aquatic organisms. The following are results of tests with fluopicolide technical:

Rainbow trout 96-hr LC₅₀ : = 0.36 mg/L
 Sheepshead minnow 96-hr LC₅₀ : = 0.41 mg/L
 Daphnia 48-hr LC₅₀ : > 1.8 mg/L
 Fathead minnow Chronic NOEC = 0.155 mg/L
 Daphnia Chronic NOEC = 0.37 mg/L
 Algae (Pseudokirchneriella) 72-hr LC₅₀ : > 4.3 mg/L
 Bioaccumulation, Bluegill sunfish: BCF 117

OTHER NON-TARGET ORGANISM TOXICITY:

Fluopicolide technical is practically non-toxic to bees. The acute contact LC₅₀ in bees was greater than 100 µg/bee.

13. DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

Disposal methods: Check government regulations and local authorities for approved disposal of this material. Dispose in accordance with applicable laws and regulations. Do not contaminate water, food or feed by disposal. Do not reuse empty container. This is a recyclable container and is to be disposed of at a container collection site. Before taking the container to a collection site; triple- or pressure-rinse the empty container and make the empty container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

14. TRANSPORT INFORMATION

UN/NA Number:	Not applicable
DOT (ground) shipping name:	Fungicide, liquid, non-regulated
Technical Name (hazardous material):	Not applicable
Hazard class:	Not applicable
Packing group:	Not applicable
DOT reportable quantity (RQ):	None
Remarks:	None
Exemption requirement:	49 CFR 173.155
Emergency Response Guidebook No.:	Not applicable
Marine pollutant:	Not applicable

15. REGULATORY INFORMATION

CANADIAN REGULATIONS:

WHMIS Hazard Class: This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations (CPR)* and the MSDS contains all information required by the CPR.

Others

Canada DSL Inventory List -	Not listed/Not determined
Canada NDSL Inventory List -	Not listed/Not determined
EINECS Inventory List -	Not listed/Not determined

For information regarding potential adverse health effects from exposure to this product, refer to Sections 2 and 11.

PESTICIDE REGULATIONS: All pesticides are governed under PCPA (Pest Control Products Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

16. OTHER INFORMATION

REASON FOR ISSUE:	Added Canadian registration number (PCPA).
MSDS NO.:	CAN-0366
PCPA REGISTRATION NUMBER:	30051
REVISION NUMBER:	2
REVISION DATE:	04/21/2011
SUPERCEDES DATE:	October 13, 2010
RESPONSIBLE PERSON(S):	Valent U.S.A. Corporation, Corporate EH&S, (925) 256-2803

Emergency Telephone: 800-682-5368
REVISION NUMBER: 2

MSDS NO.: CAN-0366
REVISION DATE: 04/21/2011

16. OTHER INFORMATION

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the PMRA under the authority of the Pest Control Products Act through the product labeling. All necessary and appropriate precautionary, use, storage and disposal information is set forth on the labeling. It is a violation of Federal law to use a pesticide product in a manner not prescribed on the PMRA-accepted label.

The information in this MSDS is based on data available to us as of the revision date given herein, and believed to be correct. Contact Valent U.S.A. Corporation to confirm if you have the most current MSDS.

Judgements as to the suitability of information herein for the individual's own use or purposes are necessarily the individual's own responsibility. Although reasonable care has been taken in the preparation of such information, Valent extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to the individual's purposes or the consequences of its use.

2011 Valent Canada, Inc.