



# Safety Data Sheet

Intuity Fungicide

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Intuity Fungicide  
**PCPA REGISTRATION NUMBER:** 32288  
**PRODUCT CODE:** None  
**VC NUMBER(S):** 1930  
**PRODUCT DESCRIPTION:** Fungicide

**MANUFACTURER/DISTRIBUTOR**  
VALENT CANADA, INC.  
3-728 Victoria Road South  
Guelph, Ontario N1L 1C6

**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](http://www.valent.ca)) or by calling the product information number(s) listed above.

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

#### Warning

- May cause skin, eye and respiratory irritation.
- May be toxic to aquatic organisms
- Harmful if swallowed
- May be harmful if inhaled.
- Keep out of reach of children

### POTENTIAL HEALTH EFFECTS

**Acute Toxicity (Primary Routes of Exposure):** Eyes, Skin, Ingestion, Inhalation

**Acute Eye Contact:** This product may be a slight eye irritant. Adverse health effects resulting from an exposure may include redness.

**Acute Skin Contact:** This product may be minimally toxic when absorbed through the skin.

**Acute Ingestion:** Harmful if ingested.

**Acute Inhalation:** This product may be harmful if inhaled.

**Signs and Symptoms of Systemic Effects:** no data available

**Potentially Aggravated Medical Conditions:** None known

Emergency Telephone: (800) 682-5368  
REVISION NUMBER: 1

SDS NO.: CAN-0417  
REVISION DATE: 05/25/2016

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
Mandestrobin	173662-97-0	30 - 60	-
Propylene glycol	57-55-6	5 - 10	Humectant
Starch	9005-25-8	0.5 - 1.5	-
Potassium hydroxide, 45%	1310-58-3	0.1 - 1	pH modifier
Other ingredients	Various CAS#s	30 - 60	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, if possible. Call a poison control center or doctor for further treatment advice.

#### Notes to physician:

None

### 5. FIRE FIGHTING MEASURES

**FLASH POINT:** >100° C

**AUTOIGNITION:** No Data Available

**EXTINGUISHING MEDIA:** Water fog, carbon dioxide, foam, dry chemical

#### NFPA Rating:

Health: 1

Flammability: 1

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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.

**Hazardous decomposition products:** May emit toxic gases and irritating fumes under fire conditions.

## 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.

**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. Remove contaminated water for treatment or disposal.

## 7. HANDLING AND STORAGE

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

### Handling:

Avoid contact with eyes, skin or clothing. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Wear protective clothing and equipment when handling this product. Goggles or protective eyewear, gloves, long-sleeved shirt, long pants, socks and shoes are appropriate. Do not mix product with water (except for the normal preparation.)

**Emergency Telephone:** (800) 682-5368  
**REVISION NUMBER:** 1

**SDS NO.:** CAN-0417  
**REVISION DATE:** 05/25/2016

**Storage:**

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. Store in a cool, dry place, away from heat, flame and strong acids. Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. 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.**

**INFORMATION FOR END USERS**

**Mixers, loaders, applicators and other handlers should refer to the product label before use for detailed information on personal protective equipment (PPE).**

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

**RESPIRATORY PROTECTION:** Not usually required. Use this material in a well ventilated area. If necessary, use an air purifying respirator with a high efficiency particulate filter (P100).

**SKIN & HAND PROTECTION:** Avoid contact with skin or clothing. Skin contact can be minimized by wearing protective clothing including gloves.

**ENGINEERING CONTROLS:** Use in a well ventilated area.

**Exposure limits**

Chemical Name	Canadian OELs
Mandestrobin	None
Propylene glycol	50 ppm (V) TWA 155 mg/m <sup>3</sup> (V) TWA 10 mg/m <sup>3</sup> (H)(b) TWA
Starch	10 mg/m <sup>3</sup> TWA
Potassium hydroxide, 45%	C 2 mg/m <sup>3</sup> STEL
Other ingredients	none

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>PHYSICAL FORM:</b>	liquid
<b>COLOUR:</b>	Opaque white
<b>ODOUR:</b>	sweet
<b>FLASH POINT:</b>	>100° C
<b>Density:</b>	1.1 g/mL @ 20° C
<b>pH:</b>	6.8 @25°C (1% w/v suspension in water)
<b>Viscosity:</b>	168 cP @ 20° C
<b>CORROSION CHARACTERISTICS:</b>	no data available

## 10. STABILITY AND REACTIVITY

**Chemical stability:** Stable under recommended storage conditions.

<b>Incompatibility:</b>	Avoid contact with alkaline materials Strong oxidizing agents
<b>Oxidation/Reduction properties:</b>	Not determined
<b>Explodability:</b>	Not expected to be explosive
<b>Hazardous decomposition products:</b>	May emit toxic gases and irritating fumes under fire conditions.
<b>Materials to avoid:</b>	Avoid strong oxidizing agents and alkaline materials.
<b>Conditions to avoid:</b>	Avoid high temperature and direct sunlight.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity:

Oral Toxicity LD <sub>50</sub> (rats)	3,129 mg/kg	EPA Tox Category	III
Dermal Toxicity LD <sub>50</sub> (rats)	> 5,000 mg/kg	EPA Tox Category	IV
Inhalation Toxicity LC <sub>50</sub> (rats)	> 2.04 mg/L	EPA Tox Category	IV
Eye Irritation (rabbits)	Minimally irritating	EPA Tox Category	IV
Skin Irritation (rabbits)	Minimally irritating	EPA Tox Category	IV
Mouse (LLNA method)	Non-sensitizer	EPA Tox Category	Not applicable

Chemical Name	IARC - Group 1 (carcinogenic to humans)	IARC - Group 2A (Probably carcinogenic)	IARC - Group 2B (Possibly carcinogenic)	NTP Carcinogen List
Potassium hydroxide, 45%	no	no	no	Not listed
Mandestrobin	no	no	no	Not listed
Propylene glycol	no	no	no	Not listed
Starch	no	no	no	Not listed
Other ingredients	No	No	No	Not listed

### TOXICITY OF MANDESTROBIN TECHNICAL

**Chronic/Carcinogenicity:** Rat and Mouse carcinogenicity studies (diet) with Mandestrobin Technical: Non-carcinogenic

**Reproduction:** A rat two-generation reproductive toxicity study (diet) with Mandestrobin Technical: No effect on reproduction. No effect on fertility, non-embryo/fetal lethal

**Mutagenicity:** Mandestrobin Technical was negative for the Ames test.

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:** Test results for mandestrobin technical on avian species include:

Acute Oral LD<sub>50</sub> canary: greater than 2000 mg/kg bw  
 Acute Oral LD<sub>50</sub> bobwhite quail: greater than 2250 mg/kg bw  
 Acute Dietary LC<sub>50</sub> mallard duck: greater than 5620 ppm  
 Acute Dietary LC<sub>50</sub> bobwhite quail: greater than 5620 ppm  
 Reproduction bobwhite quail: NOEC = 1000 ppm  
 Reproduction mallard duck: NOEC = 1000 ppm

**AQUATIC ORGANISM TOXICITY:** Test results for mandestrobin technical on aquatic species include:

Acute LC<sub>50</sub> (96 hr) Bluegill Sunfish: 2.3 mg/L  
 Acute LC<sub>50</sub> (96 hr) Rainbow Trout: 0.94 mg/L  
 Acute LC<sub>50</sub> (96 hr) Sheepshead Minnow: greater than 2.2 mg/L  
 Acute EC<sub>50</sub> (48 hr) Daphnia magna: 1.2 mg/L  
 Acute LC<sub>50</sub> (96 hr) Mysid Shrimp: 0.43 mg/L  
 Acute EC<sub>50</sub> (96 hr) Green algae: = 0.33 mg/L  
 Acute EC<sub>50</sub> (7 d) Duckweed: greater than 2.3 mg/L

**OTHER NON-TARGET ORGANISM TOXICITY:** Test results for mandestrobin technical on non-target species include:

Honeybee Acute Oral LD<sub>50</sub>: greater than 111 ug (microgram)/bee  
 Honeybee Acute Contact LD<sub>50</sub>: greater than 100 ug (microgram)/bee

### 13. DISPOSAL CONSIDERATIONS

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

**PRODUCT DISPOSAL:** For information on disposal of unused, unwanted product, contact the provincial regulatory agency or manufacturer. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

**CONTAINER DISPOSAL:** Refer to pesticide label for proper container disposal instructions based on container type and size.

**Disposal methods:** Disposal of waste and used containers must be in accordance with provincial requirements. Do not flush to surface water or sanitary sewer system. Do not contaminate water, food or feed by disposal.

### 14. TRANSPORTATION INFORMATION

**DOT (ground) shipping name:** Not regulated for domestic ground transport by US DOT or Canada TDG.

**ICAO/IATA proper shipping name:** UN 3082, Environmentally hazardous substance, liquid, n.o.s., (mandestrobin), 9, III, marine pollutant  
**Remarks:** Single or inner packaging less than 5 L (liquids) or 5 kg net (solids) excepted from Dangerous Goods regulations -- see IATA Special Provision A197.  
 For U.S. shipping, Emergency Response Guidebook No. 171.

**IMDG proper shipping name:** UN 3082, Environmentally hazardous substance, liquid, n.o.s., (mandestrobin), 9, III, marine pollutant  
**Remarks:** Single or inner packaging less than 5 L (liquid) or 5 kg net (solids) excepted from Dangerous Goods Regulations - see IMDG 2.10.2.7.

EMS No.: F-A, S-F

## 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 SDS contains all information required by the CPR.

#### Propylene glycol

Canada DSL Inventory List - Present  
EINECS Inventory List - Present

#### Starch

Canada DSL Inventory List - Present  
EINECS Inventory List - Present

#### Potassium hydroxide, 45%

Canada DSL Inventory List - Present  
EINECS Inventory List - Present

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.

**PROVINCIAL REGULATIONS:** This product did not trigger any provincial regulations.

## 16. OTHER INFORMATION

**REASON FOR ISSUE:** New Product. Added Canadian registration number (PCPA).  
**SDS NO.:** CAN-0417  
**PCPA REGISTRATION NUMBER:** 32288  
**REVISION NUMBER:** 1  
**REVISION DATE:** 05/25/2016  
**SUPERCEDES DATE:** August 12, 2013  
**RESPONSIBLE PERSON(S):** Valent U.S.A. Corporation, Corporate EH&S, (925) 256-2803

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The Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE PMRA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS 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.

The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the PMRA under the authority of the *Pest Control Products Act* through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use a PMRA-registered pesticide product in any manner inconsistent with its labeling.

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