



Safety Data Sheet

INTEGO™ Solo Fungicide

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: INTEGO™ Solo Fungicide
PCPA REGISTRATION NUMBER: 31324
VC NUMBER(S): 1837, 1892, 1896; May include other numbers for similar formulations
PRODUCT DESCRIPTION: Seed Treatment
Intego is a trademark of Valent U.S.A. Corporation

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

2. HAZARDS IDENTIFICATION

Emergency Overview

Caution

- Keep out of reach of children
- Harmful if swallowed, inhaled or absorbed through skin
- Avoid contact with eyes, skin and clothing
- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

POTENTIAL HEALTH EFFECTS

Acute Toxicity (Primary Routes of Exposure):

Acute Eye Contact: Not an eye irritant.

Acute Skin Contact: Not irritating to skin. Harmful if absorbed through skin. Not sensitizing.

Acute Ingestion: This product is slightly toxic when ingested.

Acute Inhalation: This product is slightly toxic when inhaled. Avoid breathing vapors or spray.

Signs and Symptoms of Systemic Effects: None

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.

Emergency Telephone: (800) 682-5368
REVISION NUMBER: 6

SDS NO.: CAN-0387
REVISION DATE: 04/07/2016

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight/ Percent	Purpose
Ethaboxam	162650-77-3	15 - 40	Active ingredient
Others	VARIOUS CAS NOS	40 - 70	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:

None

5. FIRE FIGHTING MEASURES

FLASH POINT: > 210° F

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

FLAMMABLE LIMITS IN AIR - LOWER (%): Not determined

FLAMMABLE LIMITS IN AIR - UPPER (%): Not determined

NFPA Rating:

Health: 1
 Flammability: 1
 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 produce toxic gases of: Hydrogen cyanide, Carbon dioxide, Carbon monoxide, Oxides of sulfur, Oxides of Nitrogen, various hydrocarbons, etc.

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 is miscible in water. Stop or reduce contamination of any water. Isolate contaminated 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:

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. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Storage:

Keep pesticide in original container only. Keep container closed when not in use. Do not store near food or feed. Store in a cool, dry place, away from heat, flame and strong acids.

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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. If operating conditions result in airborne concentrations of this material, the use of an approved respirator is recommended.

SKIN & HAND PROTECTION: Avoid contact with skin or clothing. Skin contact can be minimized by wearing protective clothing including gloves. Wash hands before breaks and at the end of work. Immediately take off all contaminated clothing and wash before reuse.

Exposure limits

Chemical Name	Canadian OELs
Ethaboxam	none
Others	none

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM:	Liquid
COLOUR:	off-white
ODOUR:	Paint-like
FLASH POINT:	> 210° F
BOILING POINT:	> 100°C
Density:	1.120 g/mL @ 20°C
VAPOUR PRESSURE:	8.1x10 ⁻⁵ Pa @ 25° C (pure grade)
DISSOCIATION CONSTANT:	pKa = 3.6 (pure grade)
pH:	8.3 at 1% w/v suspension in water
Viscosity:	63.8 cP at 20°C
OCTANOL/WATER PARTITION COEFFICIENT:	2.7-2.9 (pure grade)
SOLUBILITY:	Miscible in water

10. STABILITY AND REACTIVITY

Chemical stability:	Stable at normal temperatures and storage conditions.
Incompatibility:	Strong acids
Oxidation/Reduction properties:	Not an oxidizing or reducing agent.
Explosibility:	Not explosive.
Hazardous decomposition products:	May produce toxic gases of: Hydrogen cyanide, Carbon dioxide, Carbon monoxide, Oxides of sulfur, Oxides of Nitrogen, various hydrocarbons, etc.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

There is no toxicology information available for this product. The following information is for the technical material.

Oral Toxicity LD₅₀ (rats) > 5,000 mg/kg EPA Tox Category IV

Dermal Toxicity LD ₅₀ (rabbits)	> 5,000 mg/kg	EPA Tox Category	IV
Inhalation Toxicity LC ₅₀ (rats)	> 2.73 mg/L (4 hr)	EPA Tox Category	IV
Eye Irritation (rabbits)	Non-irritating	EPA Tox Category	IV
Skin Irritation (rabbits)	Slightly irritating	EPA Tox Category	IV
Skin Sensitization (guinea pigs)	Non-sensitizer	EPA Tox Category	Not applicable

CARCINOGEN CLASSIFICATION

Chemical Name	IARC - Group 1 (carcinogenic to humans)	IARC - Group 2A (Probably carcinogenic)	IARC - Group 2B (Possibly carcinogenic)	NTP Carcinogen List
Ethaboxam	no	no	no	Not listed
Others	no	no	no	Not listed

Chronic/Carcinogenicity: In a one-year dog study, Ethaboxam Technical produced no adverse effects up to 30 mg/kg/day (HDT). In a 2-year study in rats, Ethaboxam Technical produced adverse effects in the male reproductive organs and Interstitial/Leydig cell adenomas. The NOAEL for this study was 5.5 mg/kg/day. In a one-year mouse study with Ethaboxam Technical, no evidence of carcinogenicity was observed.

Neurotoxicity: Ethaboxam Technical was not neurotoxic in acute or subchronic neurotoxicity studies.

IMMUNOTOXICITY: Ethaboxam Technical was not immunotoxic when tested in rats using a modified plaque forming assay.

Developmental Toxicity: Developmental toxicity studies at doses high enough to cause maternal toxicity produced developmental effects (abnormal liver lobation) in rats. Similar developmental effects were not observed in rabbits.

Reproduction: Ethaboxam Technical was tested in a 2-generation rat reproduction study. Reduced body weight gain was noted at 650 ppm (HDT). Testicular lesions and reduced fertility were also observed in F1 males at this level. Decreased body weight and viability were observed at the highest dose tested. The parental, reproductive and offspring NOAEL was 200 ppm (16.2 mg/kg/day).

Mutagenicity: Genetic toxicity studies show that Ethaboxam may cause numerical chromosome effects (via effects on the mitotic spindle), but does not cause gene mutations or structural chromosome aberrations.

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, Ethaboxam Technical is practically non-toxic to avian species. The following results were obtained from studies with Ethaboxam Technical:

- Oral LD₅₀ bobwhite quail: greater than 2000 mg/kg
- Oral LD₅₀ zebra finch: greater than 2000 mg/kg
- Dietary LC₅₀ bobwhite quail: greater than 5000 ppm
- Dietary LC₅₀ mallard duck: greater than 5620 ppm

AQUATIC ORGANISM TOXICITY: Based upon EPA designation, Ethaboxam Technical is toxic to aquatic invertebrate species. Test results include:

LC₅₀ (96 hr) Fathead Minnow: greater than 4.6 mg/L
 LC₅₀ (96 hr) Rainbow Trout: 2.3 mg/L
 LC₅₀ (96 hr) Sheepshead Minnow: greater than 3.1 mg/L
 EC₅₀ (48 hr) Daphnia magna: 0.35 mg/L
 LC₅₀ (96 hr) Mysid Shrimp: 0.42 mg/L
 EC₅₀ (96 hr) Oyster Shell Deposition: 0.38 mg/L
 EC₅₀ (96 hr) Green algae: greater than 3.6 mg/L

OTHER NON-TARGET ORGANISM TOXICITY:

The acute contact toxicity for Ethaboxam Technical in honeybees was an LD₅₀ greater than 100 µg/bee.

OTHER ENVIRONMENTAL INFORMATION:

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollution Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Do not contaminate water when disposing of equipment wash waters.

13. DISPOSAL CONSIDERATIONS

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

PRODUCT DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into mix tank. Fill the container 1/4 full with solvent used to formulate the end-product. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available; otherwise dispose of in a sanitary landfill or by incineration.

Disposal methods: Check government regulations and local authorities for approved disposal of this material. Dispose in accordance with applicable laws and regulations.

14. TRANSPORTATION INFORMATION

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

Emergency Response

Guidebook No.: Not applicable

ICAO/IATA proper shipping name: UN 3082 Environmentally Hazardous Substance, Liquid, N.O.S. (Ethaboxam), 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.

IMDG proper shipping name: UN 3082 Environmentally Hazardous Substance, Liquid, N.O.S. (Ethaboxam), 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.: For U.S. Shipping, Emergency Response Guidebook No. 171
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.

Ethaboxam
Canada NDSL Inventory List - Not enumerated

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: Updated the Emergency Telephone Number.

SDS NO.: CAN-0387

PCPA REGISTRATION NUMBER: 31324

REVISION NUMBER: 6

REVISION DATE: 04/07/2016

SUPERCEDES DATE: March 22, 2016

RESPONSIBLE PERSON(S): Valent U.S.A. Corporation, Corporate EH&S, (925) 256-2803

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent Canada, Inc. and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent Canada, Inc. nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent Canada, Inc. to confirm that you have the most current product label and SDS.

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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