



Safety Data Sheet

INTEGO™ Solo Fungicide

1. IDENTIFICATION: CHEMICAL PRODUCT AND COMPANY

PRODUCT NAME: INTEGO™ Solo Fungicide
EPA REGISTRATION NUMBER: 59639-186
VC NUMBER(S): 1896. May include other numbers for similar formulations.
SYNONYM(S): Ethaboxam 3.2 FS Fungicide, V-10208 3.2 FS Fungicide, AP2™ Fungicide
PRODUCT DESCRIPTION: Seed Treatment

AP2 and *Intego* are trademarks of Valent U.S.A. Corporation.

MANUFACTURER/DISTRIBUTOR
VALENT U.S.A. CORPORATION
P.O. Box 8025
1600 Riviera Avenue, Suite 200
Walnut Creek, CA 94596-8025

EMERGENCY TELEPHONE NUMBERS
HEALTH EMERGENCY OR SPILL (24 hr):
(800) 892-0099
TRANSPORTATION (24 hr.): CHEMTREC
(800) 424-9300 or (202) 483-7616

PRODUCT INFORMATION
AGRICULTURAL PRODUCTS: (800) 682-5368

2. HAZARDS IDENTIFICATION

For EPA FIFRA-specific information see Section 15

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
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Label elements

EMERGENCY OVERVIEW

WARNING

Hazard statements
Harmful if inhaled

Precautionary Statements - Prevention

Read product label prior to using this product. For specific handling instruction refer to Section 7, Handling and Storage

Emergency Telephone: (800) 892-0099
REVISION NUMBER: 3

SDS NO.: 0387
REVISION DATE: 04/10/2015

Precautionary Statements - Response

See Section 4, First Aid Measures

Precautionary Statements - Storage

For information on Storage and Handling see Section 7.

Precautionary Statements - Disposal

For further information on product and container disposal see Section 13.

Hazards not otherwise classified (HNOC)**Other Information**

- Toxic to aquatic life

25% of the mixture consists of ingredient(s) of unknown toxicity

For information on Transportation requirements see Section 14.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight/ Percent	TRADE SECRET
Ethaboxam	162650-77-3	33.4 - 35.5	
Glycerine	56-81-5	2.38 - 2.62	
Others	VARIOUS CAS NOS	62 - 64	

* The chemical name, CAS number and/or exact percentage have been withheld as a trade secret

Other ingredients, which may be maintained as trade secrets, are any substances other than an active ingredient contained in this product. Some of these may be hazardous, but their identities are 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) 892-0099** at any time.

4. FIRST AID MEASURES

EMERGENCY NUMBER (800) 892-0099

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **1-800-892-0099** 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 center 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 center or doctor for treatment advice.

INGESTION:

Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by the poison control center 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 center or doctor for further treatment advice.

NOTES TO PHYSICIAN:

None

5. FIRE FIGHTING MEASURES

Flash point °C > 98.9 °C
 Flash point °F > 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
OSHA FLAMMABILITY CLASS: Class IIIB

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) 892-0099
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:

Wear personal protective equipment when handling this product. Users should wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

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. Do not store at temperatures below 32°F. If the product is exposed to temperatures below 32°F, thaw at room temperature to 50°F 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 MANUFACTURER(S) / FORMULATOR(S)

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.

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.

INFORMATION FOR END USERS

Workers loading product, treating seed and conducting maintenance and calibration of the treater must wear: long-sleeved shirt, long pants, socks and shoes, and chemical-resistant gloves made of any waterproof material.

Workers involved with handling treated seed (such as baggers, sewers and bag stackers) must wear: long-sleeved shirt, long pants, socks and shoes.

Workers who load and plant treated seed must wear: long-sleeved shirt, long pants, socks and shoes and chemical-resistant gloves made of any waterproof materials when handling treated seed.

EXPOSURE LIMITS

Chemical Name	ACGIH Exposure Limits	OSHA Exposure Limits	Manufacturer's Exposure Limits
Ethaboxam	None	None	None
Glycerine	None	15 mg/m ³ TWA 5 mg/m ³ TWA	None
Others	None	None	None

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid	Odor	Paint-like
Appearance	Liquid	Odor threshold	No information available
Color	Off-white		

<u>PROPERTIES</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	8.3	1% (w/v) suspension in water
Melting point/freezing point	No information available	
Boiling point/boiling range	> 100 °C	
Flash point	> 98.9 °C / > 210 °F	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limits	No information available	
Lower flammability limit	No information available	
Vapor pressure	8.1x10 ⁻⁵ Pa @ 25°C (pure grade)	
Vapor density	No information available	
Specific Gravity	No information available	
Water solubility	Miscible in water	
Solubility in other solvents	No information available	
Partition coefficient	2.7 - 2.9 (pure grade)	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity	63.8 cP at 20°C	
Explosive properties	Not an explosive	
Oxidizing properties	Not an oxidizing or reducing agent.	
Density	1.120 g/mL @ 20°C	
Bulk density	No information available	

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable at normal temperatures and storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Extremes of temperature and direct sunlight.

Incompatible materials
Strong acids.

Hazardous Decomposition Products

May produce toxic gases of: hydrogen cyanide, carbon dioxide, carbon monoxide, oxides of sulfur, oxides of nitrogen, and various other hydrocarbons.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral Toxicity LD ₅₀ (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	OSHA - Select Carcinogens	NTP Carcinogen List
Ethaboxam	Not listed	Not listed	Not listed
Glycerine	Not listed	Not Listed	Not listed
Others	Not listed	Not listed	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 with Ethaboxam Technical 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 Technical 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:

This pesticide is toxic to aquatic invertebrates, oysters and shrimp. 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: Refer to pesticide label for proper container disposal instructions based on container type and size.

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

14. TRANSPORTATION INFORMATION

DOT (ground) SHIPPING NAME: Not regulated for domestic ground transport by U.S. DOT

EMERGENCY RESPONSE Not applicable

GUIDEBOOK NO.:

ICAO/IATA 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 UN Special Provision 375. For U.S. shipping, Emergency Response Guidebook No. 171.

IMDG SHIPPING NAME: UN 3082 Environmentally Hazardous Substance, Liquid, N.O.S. (Ethaboxam), 9, III, Marine Pollutant

EMS NO.: F-A, S-F

15. REGULATORY INFORMATION

EPA-FIFRA LABEL INFORMATION THAT DIFFERS FROM OSHA-GHS REQUIREMENTS:

This material is a pesticide product registered by the EPA under FIFRA and is subject to certain labeling requirements under federal pesticide law. These requirements may differ from the classification criteria and hazard information required by OSHA GHS for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the FIFRA pesticide label:

EPA FIFRA SIGNAL WORD: CAUTION

- ***Wash hands before eating, drinking, chewing, using tobacco or using the toilet.***
- ***Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.***
- ***Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.***
- ***Keep out of reach of children.***

PESTICIDE REGULATIONS: All pesticides are governed under FIFRA (Federal Insecticide, Fungicide, and Rodenticide 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.

U.S. FEDERAL REGULATIONS: Ingredients in this product are reviewed against an inclusive list of federal regulations. Therefore, the user should consult appropriate authorities. The federal regulations reviewed include: Clean Water Act, SARA, CERCLA, RCRA, DOT, TSCA and OSHA. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

Glycerine

TSCA Inventory List -

Present

SARA (311, 312):

Immediate Health:	Yes
Chronic Health:	No
Fire:	Yes
Sudden Pressure:	No
Reactivity:	No

STATE REGULATIONS: Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities. The state regulations reviewed include: California Proposition 65, California Directors List of Hazardous Substances, Massachusetts Right to Know, Michigan Critical Materials List, New Jersey Right to Know, Pennsylvania Right to Know, Rhode Island Right to Know and the Minnesota Hazardous Substance list. For Washington State Right to Know, see Section 8 for Exposure Limit information. For Louisiana Right to Know refer to SARA information listed under U.S. Regulations above. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

Glycerine

MA Right To Know	Present
NJ Right To Know	3319
PA Right To Know	Present
RI Right To Know	Listed
MN Hazardous Substance	Present

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

16. OTHER INFORMATION

REASON FOR ISSUE:	Updated information to meet OSHA Hazcom 2012 (GHS) regulations.
SDS NO.:	0387
EPA REGISTRATION NUMBER:	59639-186
REVISION NUMBER:	3
REVISION DATE:	04/10/2015
SUPERCEDES DATE:	03/05/2014
RESPONSIBLE PERSON(S):	Valent U.S.A. Corporation, Corporate EH&S, (925) 256-2803

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (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, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products is regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling. All necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

The information in this SDS 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 SDS.

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