



Please read the entire document. This Material Safety Data Sheet contains important environmental, health and toxicology information for your employees, and anyone who will use, transport, store, dispose of or handle this product. Please make sure this information is given to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this MSDS must be given to the buyer or the information contained herein must be incorporated in your MSDS.

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:** EVITO™ T Fungicide  
**EPA REGISTRATION NUMBER(S):** 66330-383  
**SYNONYM(S):** ARY-0534-002

**COMPANY**

Arysta LifeScience North America LLC  
15401 Weston Parkway, Suite 150  
Cary, NC 27513

**EMERGENCY TELEPHONE NUMBERS**

HEALTH EMERGENCY:	SPILL EMERGENCY:
1-866-303-6952, or 1-651-632-8946	1-800-424-9300, or 1-703-527-3887

**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

Active Ingredient(s)/ Hazardous Inert Ingredient(s)	CAS #	Exposure Limits*	% Weight	% Volume
Fluoxastrobin (Methanone, [2- [[6-(2-chlorophenoxy)-5-fluoro- 4-pyrimidinyl]-oxy]phenyl](5,6- dihydro-1,4,2-dioxazine-3-yl)- ,O-methyloxime,(E)-	361377-29-9	<b>TWA<sup>a</sup></b> OSHA PEL <sup>b</sup> : NA ACGIH TLV <sup>c</sup> : NA NIOSH REL <sup>d</sup> : NA	18.0	NA
Tebuconazole ((RS)-1- <i>p</i> - chlorophenyl-4,4-dimethyl-3- (1 <i>H</i> -1,2,4-triazol-1- ylmethyl)pentan-3-ol)	107534-96-3	<b>TWA<sup>a</sup></b> OSHA PEL <sup>b</sup> : NA ACGIH TLV <sup>c</sup> : NA NIOSH REL <sup>d</sup> : NA	25.0	NA

Only the identities of the active ingredient(s) and any hazardous inert ingredients are listed. Specific information on all of this product's ingredients can be obtained by the treating medical professional or spill emergency responder for the management of exposures, spills, or safety assessments.

\*Source: *Guide to Occupational Exposure Values 2008*, published by ACGIH

<sup>a</sup>**TWA**: Time-weighted average exposure concentration for a conventional 8-hour (TLV, PEL) or up to a 10-hour (REL) workday and a 40-hour workweek.

<sup>b</sup>**OSHA PEL**: Occupational Safety and Health Administration Permissible Exposure Limits.

<sup>c</sup>**ACGIH TLV**: American Conference of Governmental Industrial Hygienists, Inc., Threshold Limit Values.

<sup>d</sup>**NIOSH REL**: National Institute for Occupational Safety and Health Recommended Exposure Limits.

**SECTION 3: HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW**

**WARNING:**

- CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY
- DO NOT GET IN EYES OR ON CLOTHING
- WEAR PROTECTIVE EYEWEAR
- KEEP OUT OF REACH OF CHILDREN
- TOXIC TO AQUATIC ORGANISMS

**Acute Health Hazards**

**Eye:** May cause substantial irritation to eyes. Avoid contact with eyes.

**Skin:** May cause slight but temporary irritation. Harmful if absorbed through skin. Avoid contact with skin and clothing.

**Ingestion:** Harmful if swallowed. Do not take internally.

**Inhalation:** Harmful if inhaled. Avoid inhalation of vapor or mist.

**Chronic Health Hazards (Including Cancer):** Fluoxastrobin is not a carcinogen. Tebuconazole caused liver, spleen, adrenal and/or eye effects at high doses in chronic studies in rats and dogs.

**Reproductive and Developmental Toxicity:** Fluoxastrobin is not a reproductive or development toxicant. Tebuconazole is not considered a primary developmental toxicant in laboratory animals.

**SECTION 4: FIRST AID MEASURES**

**Eyes:** 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 physician or poison control center if irritation persists.

**Inhalation:** Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.

**Skin:** Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.

**Ingestion:** Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

**Note to Physician:** Therapeutic measures: Basic aid, decontamination, symptomatic treatment.

## SECTION 5: FIRE FIGHTING MEASURES

<b>Flammable Limits in Air (% by volume):</b>		
	<b>Upper:</b>	NA
	<b>Lower:</b>	NA
<b>Flash Point:</b>		> 93 °C
	<b>Method Used:</b>	NDA
<b>Autoignition Temperature:</b>		NA
<b>LEL/UEL:</b>		NDA
<b>NFPA Hazard Classification:</b>		
	<b>Health:</b>	2
	<b>Flammability:</b>	1
	<b>Reactivity:</b>	0
	<b>Other:</b>	
<b>Extinguishing Media:</b>		Sprayed water jet, foam, extinguishing powder, CO <sub>2</sub> , sand.
<b>Special Fire Fighting Procedures:</b>		Keep out of smoke. Fight fire from upwind position. Evacuate personnel to safe areas. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
<b>Hazardous Combustion Products:</b>		In the event of fire, the formation of toxic vapors must be anticipated.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### EMERGENCY PHONE NUMBERS

**Exposure Calls (PROSAR): 1-866-303-6952 or 1-651-632-8946 (International)**

**Spill Calls (CHEMTREC): 1-800-424-9300 or 1-703-527-3887**

Use personal protective equipment. Do not empty into drains or waters. Take up spilled product with absorbent material and place into closable container. To clean the floor and all objects contaminated by this material, use damp cloth. Also place used cleaning materials into closable receptacles.

## SECTION 7: HANDLING AND STORAGE

Store in a dry place. Keep away from food, drink and animal feeding stuffs.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Eye Protection:** Wear protective eyewear such as goggles, face shield, or safety glasses.

**Skin Protection:** Chemical resistant gloves made of any waterproof material, such as nitrile, butyl, neoprene and/or barrier laminate. These are only some of the glove materials that are chemically resistant to this product. For more options, refer to Category A on an EPA chemical resistant category selection chart. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

**Respiratory/Ventilation Requirements:** When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Viscous off-white liquid
<b>Odor:</b>	Faint characteristic odor
<b>Physical State:</b>	Liquid suspension
<b>pH:</b>	9.2 (1% solution)
<b>Boiling Point:</b>	NDA
<b>Melting Point:</b>	NA
<b>Freezing Point:</b>	NDA
<b>Vapor Pressure:</b>	NA
<b>Vapor Density:</b>	NDA
<b>Bulk Density:</b>	1.11 g/cc at 25°C
<b>Specific Gravity:</b>	NDA
<b>Evaporation Rate:</b>	NDA
<b>Solubility in Water:</b>	NA
<b>Percent Solids by Weight:</b>	NDA
<b>Percent Volatile:</b>	NDA
<b>Volatile Organic Compounds:</b>	NDA
<b>Molecular Weight:</b>	NDA
<b>Viscosity:</b>	800 – 1200 cps @25°C

## SECTION 10: STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable under normal conditions
<b>Hazardous Polymerization:</b>	NDA
<b>Flash Point:</b>	> 93 °C
<b>Flammable Point:</b>	NA
<b>Auto Ignition:</b>	NA
<b>Incompatibility With Other Materials:</b>	NA
<b>Decomposition Products:</b>	NDA

## SECTION 11: TOXICOLOGICAL INFORMATION

### Acute:

**Oral Toxicity:** LD<sub>50</sub> (rat): > 5000 mg/kg

**Dermal Toxicity:** LD<sub>50</sub> (rat): > 5000 mg/kg

**Inhalation Toxicity:** LC<sub>50</sub> (rat): > 2.1 mg/kg

**Eye Irritation:** Moderately irritating.

**Skin Irritation:** Slightly irritating.

**Skin Sensitization:** Product is not a sensitizer or is negative for sensitization (guinea pig) (via the Buehler Test).

**Subchronic:** In subchronic studies with Fluoxastrobin Technical, the NOEL for rat were 1000 ppm (M) and 2000 ppm (F), for mice was not assigned, and for dog 100 ppm. Reduced body weight gain and food intake, calculi in the urethra and kidney, urinary bladder, and urethra, vacuolation in the zona fasciculata in rats. There were no dose related toxicity effects in mice. Reduced net body weight gain and food efficiency in addition to toxicity findings in the liver in dogs.

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**Chronic Toxicity:** In the dog chronic study with Fluoxastrobin Technical, the NOEL was 50 ppm. Reduced body weight and hepatocytomegaly and cytoplasmic changes associated with increased serum liver alkaline phosphatase indicative of cholestasis. Tebuconazole caused liver, spleen, adrenal and/or eye effects at high doses in chronic studies in rats and dogs.

**Carcinogenicity:** Fluoxastrobin has no evidence of carcinogenicity. Tebuconazole is classified by EPA as a Group C carcinogen (possible human carcinogen) based on liver tumors in mice and no evidence of carcinogenicity in rats.

**Mutagenicity:** Fluoxastrobin Technical is negative in the following genotoxicity assays: *In vitro* bacterial reverse gene mutation, *In vitro* mammalian chromosome aberration in Chinese hamster lung (V79) cells, mammalian cytogenetics-micronucleus assay (mouse). Tebuconazole was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**Developmental Toxicity:** In the developmental studies with Fluoxastrobin Technical the NOEL for rats were 1000 mg/kg/day (maternal) and 1000 mg/kg/day (developmental) (limit dose). The NOEL for rabbits were 100 mg/kg/day (maternal) based on cold years, transient body weight loss and decreased food consumption, and 400 mg/kg/day (developmental). Tebuconazole is not considered a primary developmental toxicant in laboratory animals. Developmental effects were observed only at doses that caused maternal toxicity.

**Reproduction:** In the reproduction study with Fluoxastrobin Technical in rats were 1000 ppm (parental) based on decreased pre-mating body weight gain and decrease pre-mating absolute body weight; >10000 ppm (reproductive); 1000 ppm (offspring) based on decrease body weights, delayed preputial separation, and incomplete ossification. Tebuconazole is not considered a primary reproductive toxicant in rats.

**Neurotoxicity:** Fluoxastrobin did not show evidence of neurotoxicity. Tebuconazole caused only transient neurobehavioral effects in acute, subchronic and/or developmental neurotoxicity studies in rats.

## SECTION 12: ECOLOGICAL INFORMATION

### Aquatic Organism Toxicity (Fluoxastrobin Technical):

Trout ( <i>Oncorhynchus mykiss</i> )	96 hr LC <sub>50</sub> = 0.435 mg/L
Carp ( <i>Cyprinus carpio</i> )	96 hr LC <sub>50</sub> = 0.57 mg/L
Bluegill sunfish ( <i>Lepomis macrochirus</i> )	96 hr LC <sub>50</sub> = 0.97 mg/L
Water flea ( <i>D. magna</i> )	48 hr EC <sub>50</sub> = 0.48 mg/L
Mysid ( <i>M. bahia</i> )	96 hr LC <sub>50</sub> = 0.053 mg/L

### Aquatic Organism Toxicity (Tebuconazole Technical):

Trout ( <i>Oncorhynchus mykiss</i> )	96 hr LC <sub>50</sub> = 4.4 mg/L
Bluegill sunfish ( <i>Lepomis macrochirus</i> )	96 hr LC <sub>50</sub> = 5.7 mg/L
Water flea ( <i>D. magna</i> )	48 hr EC <sub>50</sub> = 4.2 mg/L

### Other Non-Target Organism Toxicity (Fluoxastrobin Technical):

Green algae ( <i>Selenastrum capricornutum</i> )(biomass):	72-hour EC <sub>50</sub> = 0.45 mg/L
Green algae ( <i>Selenastrum capricornutum</i> )(growth rate):	72-hour EC <sub>50</sub> = 2.67 mg/L
Bacteria (activated sludge):	EC <sub>50</sub> > 10000 mg/L

### Other Non-Target Organism Toxicity (Tebuconazole Technical):

Green algae ( <i>Selenastrum capricornutum</i> )(static):	72-hour EC <sub>50</sub> = 4.01 mg/L
Bees:	LD <sub>50</sub> Oral = 175.4 µg/bee
Bees:	LD <sub>50</sub> Contact = 0.6 µg/bee

**SECTION 13: DISPOSAL CONSIDERATIONS**

Dispose of wastes and empty containers in accordance with local, state and federal regulations, preferably through incineration.

**SECTION 14: TRANSPORT INFORMATION**

Only regulated when shipped by water or in bulk package. Describe as: UN3082, Environmentally hazardous substances, liquid, n.o.s. (Tebuconazole, Fluoxastrobin), 9, PG III, Marine Pollutant.

**SECTION 15: REGULATORY INFORMATION****U.S Federal Regulations**

**FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act):** All pesticides are governed under FIFRA. 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.

**CERCLA (Comprehensive Response Compensation, and Liability Act):** None

**OSHA (Occupational Safety and Health Administration):** This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

**SARA Title III (SUPERFUND Amendments and Reauthorization Act):**

Section 302 (EHS) TPQ: None

Section 304 (EHS) RQ: None

Section 311/312 CATEGORIES	1.	Immediate (Acute) Health Effects; <b>YES</b>
	2.	Delayed (Chronic) Health Effect; <b>YES</b>
	3.	Fire Hazard; <b>NO</b>
	4.	Sudden Release of Pressure Hazard; <b>NO</b>
	5.	Reactivity Hazard; <b>NO</b>

**TSCA (Toxic Substance Control Act):** This product is exempt from TSCA Regulation under FIFRA Section 3 (2)(B)(ii) when used as a pesticide.

**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.

**SECTION 16: OTHER INFORMATION**

<b>Reason for issue:</b>	Changes to Transportation Information (Section 14)
<b>Prepared by:</b>	Ashley R. Brown
<b>Issue date:</b>	4/06/12
<b>Supersedes date:</b>	2/24/10
<b>MSDS number:</b>	00366

The information in this MSDS is based on data available to us as of the issue date given herein, and believed to be correct. Contact Arysta LifeScience North America LLC at (919) 678-4900 to determine if additional data and information have become available since the issue date.

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