

SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC)



1. IDENTIFICATION

PRODUCT NAME: Fervent® 475SC Fungicide
DESCRIPTION: An agricultural fungicide.
EPA Reg. No.: 71512-31-88783

COMPANY IDENTIFICATION:
Summit Agro USA, LLC
240 Leigh Farm Road, Suite 215
Durham, NC 27707

2. HAZARD IDENTIFICATION



WARNING
Harmful if swallowed



Toxic to aquatic life with long lasting effects

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Common Name</u>	<u>Chemical Name</u>	<u>CAS #</u>	<u>Composition</u>
Isofetamid	N-[1,1-dimethyl-2-[2-methyl-4-(1-methylethoxy)phenyl]-2-oxoethyl]-3-methyl-2-thiophenecarboxamide	875915-78-9	25.0%
Tebuconazole	α -[2-(4-chlorophenyl)ethyl]- α -(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol	107534-96-3	18.2%

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

IF SWALLOWED: 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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.

5. FIREFIGHTING MEASURES

Flash Point: Not flammable

Flammable Limits (LFL-UFL): Not applicable

Fire and Explosion Hazards: May decompose under fire conditions emitting gasses and vapors such as oxides of carbon and nitrogen, hydrogen sulfide, hydrogen cyanide and hydrogen chloride which may be toxic and irritating to the respiratory tract.

Means of Extinction: SMALL FIRE: water spray, dry chemical, foam, or CO₂, LARGE FIRE: water spray, fog, or foam. DO NOT use water jet.

Fire Fighting Instructions: Evacuate area and fight fire upwind a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to runoff.

Firefighting Equipment: Self-contained breathing apparatus with full firefighting turn-out gear.

Hazardous Combustion Products: oxides of carbon and nitrogen, hydrogen sulfide, hydrogen cyanide and hydrogen chloride

NFPA Ratings: Health – 1 / Flammability – 0 / Reactivity – 0

6. ACCIDENTAL RELEASE MEASURES

Precautionary Measures: Use protective equipment and engineering controls identified in Section 8 of this document.

Containment and Clean-up: Contain spill. Remove as much as possible and place in a closed, labeled container to await proper disposal. Wash spillage area with water. Do not allow wash water to enter drains or surface waters.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Storage: Store in original container, in a secure, dry and cool place separate from other pesticides, fertilizer, food, and feed. Avoid cross-contamination with other pesticides.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Ensure that eyewash stations and safety showers are near work areas.

Protective Clothing: Long-sleeved shirt and long pants, socks, shoes, and chemical resistant gloves made of any waterproof material.

General: Follow manufacturer's instructions for cleaning/maintaining PPE. If not such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Always follow the label instructions when handling and using this product. A respirator is not normally required when handling sealed containers. Use effective engineering controls to comply with facility occupational exposure limits. In case of emergency spills, use a NIOSH-approved respirator with particulate filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light beige liquid

Odor: Slight odor.

Flash Point: Not flammable

pH: 6.79 (1% suspension in water)

Boiling Point: Not available

Density: 1.10 g/mL @ 25°C

Solubility: Suspensible in water

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Extreme temperatures.

CHEMICAL STABILITY: This product is stable at normal temperatures over 12 months.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and nitrogen, hydrogen sulfide, hydrogen cyanide, hydrogen chloride.

INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizing agents, strong acids or bases

POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY: Oral LD₅₀ (rat): 1,750 mg/kg

ACUTE DERMAL TOXICITY: Dermal LD₅₀ (rabbit): > 5,000 mg/kg

ACUTE INHALATION TOXICITY: Inhalation LC₅₀ : > 2.05 mg/L [actual airborne concentration];
> 64.14 mg/L (nominal) 4 hour(s) [rat]

EYE IRRITANT: Minimally irritating

SKIN IRRITATION: Non-irritating

SENSITIZATION: Not a contact sensitizer

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

CARCINOGENICITY: Not carcinogenic based on tests conducted with isofetamid and tebuconazole.

ACGIH: Not listed

IARC: Not listed

NTP: Not listed

OSHA: Not listed

MUTAGENIC DATA: No evidence of mutagenicity.

REPRODUCTIVE TOXICITY: No significant evidence of reproductive toxicity.

ADDITIONAL DATA: 90-day feeding studies with isofetamid demonstrated increased liver weight and thyroid effects in rats exposed to extreme doses of 10,000 ppm. At 1000 ppm, increased liver weight was observed but the frequency of thyroid effects decreased significantly. 1-year and 2-year feeding studies on rats showed effects to liver and thyroid at doses of 5000 ppm.

12. ECOLOGICAL INFORMATION

Isfetamid is toxic to oysters. Tebuconazole is toxic to mammals, fish and aquatic invertebrates. DO NOT apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. DO NOT contaminate waters when disposed of equipment washwaters or rinsate.

Ground Water Advisory: Tebuconazole is known to leach through soil into ground water under certain conditions.

Surface Water Advisory: Tebuconazole may contaminate water through drift of spray in wind. Tebuconazole has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to runoff that contains this product.

Isfetamid has low to medium persistence in aerobic soil (DT₅₀ 22-55 days) with much slower degradation under anaerobic conditions (DT₅₀ 572 days). It does not show hydrolytic degradation at pH of 4-9 but degrades rapidly under photolytic conditions (DT₅₀ 1.4-1.8 days). Isfetamid exhibits low to medium mobility in soil.

This product is not expected to be bioaccumulative.

The following is for the active ingredient, Isfetamid:

AQUATIC TOXICITY

Rainbow Trout 96-hr LC₅₀ = 2.27 mg/L

Daphnia magna 48-hr EC₅₀ = 4.7 mg/L

Algae (*Pseudokirchneriella subcapitata*)
96-hr ErC₅₀ > 4.3 mg/L

OTHER TOXICITY

Bobwhite Quail Acute LD₅₀ > 2000 mg/kg

Sub-Acute Dietary Bird LD₅₀ > 5000 ppm in diet for both
Quail and Mallard

The following is for the active ingredient, Tebuconazole:

AQUATIC TOXICITY

Rainbow Trout 96-hr LC₅₀ = 4.4 mg/L

Daphnia magna 48-hr EC₅₀ = 2.0 mg/L

Algae (*Pseudokirchneriella subcapitata*)
96-hr ErC₅₀ 3.2 mg/L

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by disposal.

PESTICIDE DISPOSAL: Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill empty container. Refer to product label for more container disposal instructions.

14. TRANSPORT INFORMATION

US DOT:

Containers < 119 Gallons (450 Liters) shipped by land:

Not regulated by DOT.

Containers ≥ 119 Gallons (450 Liters) shipped by land:

DOT Shipping Name:	UN3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Isofetamid, Tebuconazole), PG III, 9
DOT Emergency Response Guide:	171
Marine Pollutant:	Yes

IMDG (shipments by vessel):

UN3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Isofetamid, Tebuconazole), PG III, 9, Marine Pollutant

IATA (shipments by air):

UN3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Isofetamid, Tebuconazole), PG III, 9

15. REGULATORY INFORMATION

FIFRA –

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

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION:

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

See inside label booklet for additional Precautionary Statements and Directions for Use including Storage and Disposal Instructions.

ENVIRONMENTAL HAZARDS

Isofetamid is toxic to oysters. Tebuconazole is toxic to mammals, fish and aquatic invertebrates. DO NOT apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT contaminate waters when disposing of equipment washwaters or rinsate. Do not apply when weather conditions favor drift from the treated areas. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Ground Water Advisory: Tebuconazole is known to leach through soil into ground water under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

Surface Water Advisory: Tebuconazole may contaminate water through drift of spray in wind. Tebuconazole has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted within 48 hours.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. Where states have more stringent regulations, they must be observed.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide.

SARA Title III – Section 302 Extremely Hazardous Substances

Not Listed

SARA Title III – Section 311/312 Hazard Categories

Not listed

SARA Title III – Section 313 Reportable Ingredients

Not Listed

CERCLA –

Not Listed

CALIFORNIA PROP 65 STATUS –

This product does not contain any chemicals known to the state of California to cause cancer or reproductive harm.

CANADA –

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

16. OTHER INFORMATION

REFER TO THE PRODUCT LABEL FOR TERMS AND CONDITIONS OF USE

Warranty Disclaimer

To the extent consistent with applicable law, all such risks shall be assumed by the buyer. Summit Agro USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use, subject to the inherent risks referred to above. SUMMIT AGRO USA LLC MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, SUMMIT AGRO USA LLC AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

SUMMIT AGRO USA LLC and the SELLER offer this product, and the Buyer and User accept it, subject to the foregoing Conditions of Sale and Warranty which may be varied only by agreement in writing signed by a duly authorized representative of SUMMIT AGRO USA LLC.

Fervent is a registered trademark of Ishihara Sangyo Kaisah, Ltd.

SDS Version: 1.0

Effective Date: 07/24/2017