

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**COMPANY ADDRESS:**

ALBAUGH, LLC
Ankeny, IA 50021

EMERGENCY TELEPHONE NUMBERS:

(800) 424-9300 (CHEMTREC, transportation and spills)

PRODUCT NAME

: **FLUDIOXONIL 4L ST**

CHEMICAL NAME

: Fludioxonil

PRODUCT USE

: Fungicide

PRODUCT CODE

: EPA Reg. No 42750-248

SECTION 2 - HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

White to off-white viscous liquid

HEALTH HAZARDS: Harmful if absorbed through skin or inhaled. Causes moderate eye irritation.

PHYSICAL HAZARDS: May release toxic fumes if burned.

ENVIRONMENTAL HAZARDS: Toxic to aquatic organisms.

**SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS**

COMPONENT	PERCENTAGE	CAS NUMBER
Fludioxonil	40.3	131341-86-1
Other ingredients (contains*)	59.7	N/A
*Ethylene glycol	12.5	107-21-1

SECTION 4 - FIRST AID MEASURES

First Aid responders should use protective equipment in Section 8 if there is a potential for exposure to product.

IF ON SKIN OR CLOTHING: 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.

IF IN 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 poison control center or doctor for treatment advice.

IF INHALED: Move person 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 poison control center or doctor for further treatment advice.

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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: No specific antidote, treat symptomatically.

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

SECTION 5 - FIRE FIGHTING MEASURES

National Fire Protection Rating (NFPA)

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

FLASHPOINT: Not applicable

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

FIRE AND EXPLOSION HAZARD: Can burn in fire, releasing irritating and toxic gases.

FIRE FIGHTING INSTRUCTIONS: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Dike and collect water used to fight fire to prevent environmental damage due to run off.

FIRE FIGHTING EQUIPMENT: Self-contained breathing apparatus with full facepiece.

Minimize use of water to prevent environmental contamination. Contact your State Pesticide or Environmental Control Agency, or nearest EPA Regional Office for guidance on disposal.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILLS OR LEAKS: Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.

LARGE SPILL: Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

(Environmental Hazards) Minimize use of water to prevent environmental contamination

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate.

HANDLING: Use only in a well-ventilated area.

STORAGE: Store in cool, dry well ventilated area. Store in original container. Keep away from food, feed and drinking water.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION**EXPOSURE LIMITS (8 hour TWA, ppm):**

COMPONENT	OSHA PEL	ACIGH TLV
Fludioxonil	Not listed	Not listed
Ethylene glycol	Not listed	100

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Local mechanical exhaust ventilation may be required. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT: All mixers, loaders, applicators, and other handlers (including handlers participating in seeding and transplanting as part of root-dip or greenhouse-soil treatments) must wear:

- Long-sleeved shirt and long pants, shoes plus socks.
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or Viton.
- Eye protection

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 and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White to off-white viscous liquid
Odor:	Sweet, latex paint-like odor
pH:	6.5 – 7.5
Melting Point:	Not applicable
Boiling Point:	No data
Flash Point:	Will not flash
Evaporation Rate:	No data
Flammability:	Not flammable
Flammability Limits:	Not applicable
Vapor Pressure:	3.9×10^{-4} mPa (25°C) (Fludioxonil)
Vapor Density:	Not applicable
Density:	1.17 – 1.21 g/ml (9.76 – 10.10 lb/gl)*
Solubility:	Emulsifies
Partition Coefficient:	log Pow 4.12 (25°C) (Fludioxonil)
Auto-Ignition Temperature:	No data
Decomposition Temperature:	No data
Viscosity:	913.8 cSt (20°C); 596.0 cSt (40°C)

*Listed density is an approximate value and does not necessarily represent that of a specific batch.

SECTION 10 - STABILITY AND REACTIVITY

PRODUCT REACTIVITY: None known

CHEMICAL STABILITY: Stable, however may decompose if heated.

HAZARDOUS REACTION/POLYMERIZATION: Product will not undergo polymerization.

CONDITIONS TO AVOID: Avoid temperatures above (115°F, 46°C).

INCOMPATIBILITY WITH OTHER MATERIALS: Acidic and oxidizing materials

HAZARDOUS DECOMPOSITION PRODUCTS: Unknown.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute toxicity values from a similar but not identical formulation.

ACUTE TOXICITY:

Oral LD ₅₀ (rat)	> 5,000 mg/Kg
Dermal LD ₅₀ (rat)	> 2,000 mg/Kg
Inhalation LC ₅₀ (rat)	> 2.09 mg/L
Eye Irritation (rabbit)	Slight irritant
Skin Irritation (rabbit)	Slight irritant
Sensitization (guinea pig)	Non-sensitizer

CARCINOGEN STATUS:

OSHA	- Not listed
NTP	- Not listed
IARC	- Not listed

TERATOGENICITY: Delayed development at maternally toxic doses.

MUTAGENIC DATA: Delayed development at doses causing maternal toxicity.

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

FATE: Moderately persistent with a half-life of 120 - 240 days depending on soil pH and weather conditions. Low mobility in soil.

FISH TOXICITY: (technical)

96 hour LC ₅₀ , Rainbow trout –	0.47 ppm
96 hour LC ₅₀ , Bluegill –	unknown

AVIAN TOXICITY: (technical)

Oral LD ₅₀ , Bobwhite quail –	> 2,000 mg/Kg
Oral LD ₅₀ , Mallard duck –	unknown

BEE TOXICITY: (technical) unknown

SECTION 13 - DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by storage or disposal.

WASTES: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. If these wastes cannot be used 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 in proper disposal methods.

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container % full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke

Refer to the product label for additional and complete Container Handling instructions

SECTION 14 - TRANSPORT INFORMATION

DOT SHIPPING DESCRIPTION:	Not regulated for domestic ground transport
DOT HAZARD CLASS:	N/A
UN NUMBER:	N/A
DOT PACKING GROUP:	PG III

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY:	> 3,960 gallons (ethylene glycol content)
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SARA TITLE III STATUS:	
311/312 Hazard Categories –	Immediate and Acute Health
313 Toxic Chemicals –	Ethylene glycol

CALIFORNIA PROP 65:	Not Listed
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TSCA:	This product is exempted from TSCA because it is solely for FIFRA regulated use.
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SECTION 16 - OTHER INFORMATION

HMIS HAZARD RATINGS	HEALTH	1
	FLAMMABILITY	1
	PHYSICAL HAZARD	0
	4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

DISCLAIMER: The information presented herein is based on available data from reliable sources and is correct to the best of Albaugh's knowledge. Albaugh makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

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 are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and 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.

REVISED DATE: October, 2014

REFERENCE: Revised for GHS compliance