

SAFETY DATA SHEET

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

Product Name: FLURO STAR

PCP Reg. No.: 33280

Product use: Herbicide

Supplier's name and address:

Albaugh, LLC
1525 NE 36th St.
Ankeny, IA 50021
1-800-247-8013

Emergency Telephone #:

1-800-424-9300 (CHEMTREC)

SECTION 2 — HAZARDS IDENTIFICATION

Physical Hazards: Flammable Liquid Category 4

Health Hazards: Acute toxicity (Oral) Category 5
Acute Toxicity (Dermal) Category 5
Acute Toxicity (Inhalation) Category 5
Skin Irritation Category 3
Eye Irritation Category 2B

Environmental Hazards: Hazardous to aquatic environment, acute Category 1

Signal Word: WARNING

Hazard Statements: Combustible liquid. May be harmful if swallowed. May be harmful in contact with skin. May be harmful if inhaled. Causes eye irritation. Causes mild skin irritation. Very toxic to aquatic life.



Precautionary Statements: Keep away from flames and hot surfaces. Causes skin and eye irritation. May be harmful in contact with skin. Avoid contact with skin, eyes and clothing. Wear goggles or face shield during mixing/loading. Wash concentrate from skin or eyes immediately. Wear coveralls over a long-sleeved shirt, long pants, socks, shoes and chemical-resistant gloves. Rinse gloves before removal. After use, wash hands and other exposed skin. Remove and wash contaminated clothing before reuse. Avoid breathing spray mist. Use only outdoors or in a well-ventilated area. May be harmful if swallowed. Do not eat, drink or smoke when using this product. This product contains an active ingredient and petroleum distillates which are toxic to aquatic organisms.

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component	CAS No.	Percentage (%)
Fluroxypyr 1-methylheptyl ester	81406-37-3	26.2
Naphthalene	91-20-3	≤6.0
N-Methyl-2-pyrrolidone	872-50-4	5.1
1,2,4-Trimethylbenzene	95-63-6	≤3.4
Solvent naphtha (petroleum), light aromatic	64742-95-6	0.7

Content Listed on Product Label
Fluroxypyr 1-methylheptyl ester 180 g/L

SECTION 4 — FIRST AID MEASURES

If Inhaled: 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.

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 centre or doctor for treatment advice.

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. 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.

Take the container, label or product name and Pest Control Product Registration Number with you when calling a poison control center or doctor or going for treatment.

Do not induce vomiting. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. Treat symptomatically.

SECTION 5 — FIRE FIGHTING MEASURES

Extinguishing Media: Water fog, alcohol foam, carbon dioxide, dry chemical.

Special Firefighting Procedures: Firefighters should wear self-contained breathing apparatus and full protective clothing when fighting chemical fires. Minimize and contain water runoff.

Flash Point:63°C

Conditions of Flammability:Combustible liquid. May burn under fire conditions.

Hazardous Decomposition Products: ...Under fire conditions, may produce gases such as hydrogen bromide or other bromine compounds, hydrogen chloride, nitrogen oxides and carbon oxides.

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: **Health: 2** **Flammability: 2** **Reactivity: 1**

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Use safety equipment and procedures appropriate to the size of the spill. Keep unnecessary people away. Avoid runoff to natural waters and sewers. Surround and absorb spills with inert material such as perlite, sawdust, clay granules, vermiculite, sand or dirt. Contain all affected material in a closed, labeled container for proper disposal. Isolate from other waste materials. Clean contaminated area such as hard surfaces with detergent and water, collecting cleaning solution for proper disposal. Large spills to soil or similar surfaces may necessitate removal of top soil.

SECTION 7 — HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes and clothing. Wear goggles or face shield during mixing/loading. Wear coveralls over a long-sleeved shirt, long pants, socks, shoes and chemical-resistant gloves. Rinse gloves before removal. After use, wash hands and other exposed skin. Remove and wash contaminated clothing before reuse. Avoid breathing spray mist. Do not eat, drink or smoke when using this product.

Storage: Store the container tightly closed away from seeds, fertilizer, plants and foodstuffs. Do not store near sources of heat. May be stored at any temperature. Shake well before using.

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Component	TWA*	STEL*	Note
Fluroxypyr 1-methylheptyl ester	10 mg/m ³	N/E	Supplier recommendation
*Naphthalene	10 ppm Skin	15 ppm Skin	ACGIH
N-Methyl-2-pyrrolidone	10 ppm Skin	N/E	AIHA recommendation

*Time Weighted Average, 8-hour unless otherwise noted **Short Term Exposure Level
N/E – Not Established

Engineering Controls: Use only outdoors or in a well-ventilated area.

Personal Protective Equipment: Goggles or full-face respirator, coveralls, long-sleeved shirt, long pants, socks, shoes and chemical-resistant gloves. Rinse gloves before removal.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical data are typical values but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification. If no value is determined for the formulation, the value listed is the most relevant value of the predominate ingredient(s).

Physical state and appearance: Brown liquid
Odor: slight aromatic (solvent)
Odor Threshold: No data
pH: 5.5 (1% w/w dilution)
Melting Point: No data
Freezing Point: No data
Boiling Point: 202°C
Flash Point: 63°C
Evaporation Rate: No data
Flammability: No data
Explosive Limits: No data
Vapor Pressure: No data

Vapor Density: No data
Density: 0.99 g/cm³ @ 25°C
Solubility: No data
Partition Coefficient: No data
Auto Ignition Temperature: No data
Decomposition Temperature: No data
Viscosity: No data

SECTION 10 — STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical Stability: Stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Excessive heat. Do not store near heat or flame.

Incompatible Materials: Avoid contact with strong acidic, basic or oxidizing agents.

Hazardous Decomposition Products: Under fire conditions, may produce gases such as Hydrogen fluoride or other fluorine compounds, Hydrogen chloride, Nitrogen oxides and Carbon oxides.

SECTION 11 — TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals. Data obtained on similar products and on components are summarized below.

Likely Routes of Exposure: Inhalation, ingestion, skin and eye contact.

Acute oral toxicity Rat, LD₅₀: 3,738 mg/kg (Rat, male), 3,162 mg/kg (Rat, female)

Acute dermal toxicity Rabbit, LD₅₀: >2,000 mg/kg

Acute inhalation toxicity Rat, LD₅₀: > 6.2 mg/l

Skin irritation Rabbit: Slight irritation

Eye irritation Rabbit: Moderate irritation

Skin sensitization Guinea Pig: Non-sensitizer

Mutagenicity: Fluroxypyr shows no evidence of genotoxicity. Products similar to the hydrocarbon component are not considered to be mutagenic.

Chronic effects/carcinogenicity: Fluroxypyr shows no evidence of carcinogenicity. Products similar to the hydrocarbon component are not considered to be mutagenic and are unlikely to cause tumors.

Toxicity to reproduction/fertility: Fluroxypyr shows no evidence of reproductive toxicity.

Developmental toxicity/teratogenicity: ... No data

SECTION 12 — ECOLOGICAL INFORMATION

Aquatic Toxicity:

Rainbow trout:	96-Hour LC ₅₀ (mg/L)	>0.09 (solubility limit)
Daphnia:	48-Hour EC ₅₀ (mg/L)	>0.09 (solubility limit)
Algae: Selenastrum	120-Hpur EC ₅₀ (mg/L)	>0.09 (solubility limit)
Algae: Navicula	120-Hpur EC ₅₀ (mg/L)	>0.093 (solubility limit)

Avian toxicity

Bobwhite quail:	Oral LD ₅₀ (mg/kg).....	>2000 mg/kg diet
Mallard duck:.....	Oral LD ₅₀ (mg/kg).....	>2000 mg/kg diet

Arthropod toxicity:

Honey bee:	Oral and Contact LD ₅₀	>100 µg/bee
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Persistence and Degradability: Fluroxypyr 1-methylheptyl ester is rapidly converted to fluroxypyr acid in all soil types. Fluroxypyr is degraded microbially with representative soil half-lives for fluroxypyr MHE and acid of 11 to 38 days.

Bioaccumulation Potential: Negligible.

Mobility in Soil: Field studies with Fluroxypyr demonstrate no evidence of significant leaching.

Other Adverse Effects: No data.

SECTION 13 — DISPOSAL CONSIDERATIONS

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Disposal should be made in accordance with federal, provincial and local regulations.

Do not reuse container for any purpose. If applicable, return container in accordance with return program. If a recyclable container, dispose of at a container collection site. Contact local distributor, dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site, triple or pressure rinse the empty container adding rinsings to spray tank, and make container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

SECTION 14 — TRANSPORTATION INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

CANADA: TDG Classification – Road/Rail:

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (Fluroxypyr 1-methylheptyl ester), Class 9, PG III, Marine Pollutant.

Section 1.45.1 of the TDG Regulations provides an exemption from documentation and safety marks only for this product and only when transported by a road or railway vehicle.

UNITED STATES: DOT Classification:

< 119 gallons per complete package
Non-Regulated- See 49 CFR 173.132(b)(3) & 172.101 Appendix A
≥ 119 gallons per complete package
NA1993, Combustible, Liquid, n.o.s. (Naphthalene), 3, III, Marine Pollutant

IMDG Water Transportation:

UN3082, Environmentally hazardous substance, liquid, n.o.s., (Fluroxypyr 1-methylheptyl ester)
9, III, Marine Pollutant.

IATA:

UN3082, Environmentally hazardous substance, liquid, n.o.s., (Fluroxypyr 1-methylheptyl ester)
9, III, Marine Pollutant.

SECTION 15 — REGULATORY INFORMATION

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. Following is the hazard information required on the pest control product label:



WARNING - EYE IRRITANT
CAUTION - SKIN IRRITANT

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is designed to comply with the Globally Harmonized System (GHS) of chemical hazard classification. The information given here is not necessarily exhaustive but is representative of relevant, reliable data. Follow all local/regional/national/international regulations.

HMIS Rating: 2 Health; 2 Flammability; 1 Reactivity

0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE Pest Management Regulatory (PMRA)- APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS 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 product labeling and provincial legislation, 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 PMRA-approved label.

Prepared by: Albaugh, LLC

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