



Material Safety Data Sheet

SECTION 1. IDENTIFICATION

Product Name: FOMESAFEN 1.88 HERBICIDE
Chemical Name: Sodium salt of fomesafen [5-[2-chloro-4-trifluoromethyl)phenoxy]-N-(methylsulfonyl)-2-nitrobenzamide]
EPA Registration No.: 87655-3-84237
Recommended Use: Herbicide
Manufacturer: Solera ATO, LLC
12230 E Del Norte
Yuma, AZ 85367
Customer Service (928) 503-1518

FOR MEDICAL EMERGENCIES, CONTACT the National Poison Information Center 1-800-222-1222
FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

HAZARD CLASSIFICATION

Acute Oral Toxicity: Category 4; Acute dermal Toxicity: Category 4; Acute Inhalation Toxicity: Category 4

SIGNAL WORD Warning

HAZARD STATEMENTS

This product contains fomesafen, which has been determined to cause tumors in laboratory mice. Risks can be reduced by closely following use directions and precautions and by wearing the protective clothing specified elsewhere on this label.

Causes skin irritation. Harmful if absorbed through skin. Harmful if swallowed.

Causes moderate eye irritation. Do not get on skin or clothing. Avoid contact with eyes.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PICTOGRAMS



SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Fomesafen	108731-70-0	22.1

SECTION 4. FIRST AID MEASURES

Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment. For MEDICAL Emergencies 24 Hours a Day Call a Poison Control Center at 1-800-222-1222.

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 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.

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.

SECTION 5. FIRE FIGHTING MEASURES

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

In Case of Fire

Use dry chemical, foam or CO₂ extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

SECTION 6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

SECTION 7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL

Ingestion:	Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.
Eye Contact:	Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Skin Contact:	Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.
Inhalation:	A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	off-white
Physical State	liquid (microemulsion)
Odor	Faint odor
pH	7.2 – 9 (1% w/w in deionized water)
Specific Gravity	1.08 at 20 °C
Melting / Freezing Point	Not Applicable
Fire and Explosion	
Flash Point:	> 212°F
Flammable Limits (% in Air):	Lower: % Not Applicable Upper:% Not Applicable
Autoignition Temperature:	Not Available
Flammability:	Not Applicable

SECTION 10. STABILITY AND REACTIVITY

Stability: Stable under normal use and storage conditions.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: None known.
Materials to Avoid: Oxidizing agents.
Hazardous Decomposition Products: Can decompose at high temperatures forming toxic gases.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion:	Slightly Toxic	
	Oral (LD50 Rat):	>3,863 mg/kg body weight
Dermal:	Slightly Toxic	
	Oral (LD50 Rat):	>2,000 mg/kg body weight
Inhalation:	Practically Non-Toxic	
	Inhalation (LC50 Rat):	>2.1 mg/l air – 4 hours
Eye Contact:	Moderately Irritating (Rabbit)	
Skin Contact:	Moderately Irritating (Rabbit)	
Skin Sensitization:	A moderate skin sensitizer in animal tests.	

Reproductive/Developmental Effects: Fomesafen Sodium Salt: Non-genotoxic in in vitro and in vivo assays. Hepatic changes and a small effect on reproductive performance seen in a 3-generation rat study at the 1000 ppm dose level. (based on Fomesafen Technical).

Chronic/Subchronic Toxicity Studies Fomesafen Sodium Salt:

Liver effects seen at 10 ppm and 100 ppm in 90-day rat feeding studies and in 6-month dog studies at 25 mg/kg/d. (based on Fomesafen Technical). No evidence of neurotoxicity from subacute or longer-term studies in mammals. (based on Fomesafen Technical)

Carcinogenicity Fomesafen Sodium Salt:

Increased rates of malignant liver tumors in a 2-yr mouse feeding study (1000 ppm), but the results are not considered relevant to man. (based on Fomesafen Technical).

Other Toxicity Information: None

Target Organs Fomesafen Sodium Salt: Liver (based on Fomesafen Technical)

SECTION 12. ECOLOGICAL INFORMATION

Summary of Effects

Fomesafen Sodium Salt: Toxic to fish. (based on Fomesafen Technical)

Eco-Acute Toxicity: Fomesafen Sodium Salt Rainbow Trout 96-hour LC50 170 mg/L

Bluegill Sunfish 96-hour LC50 1,507 mg/L

Mallard Oral LD50 >5,000 mg/kg

Mallard 5-day Dietary LC50 >20,000 mg/kg

Daphnia magna 48-hour EC50 0.33 g/L

Green Algae EC50 170 ug/L

Bobwhite Quail 5-day LC50 >20,000 mg/kg

The above Ecotoxicity Data are based on Fomesafen Technical, not Fomesafen Sodium Salt.

Eco-Chronic Toxicity: Fomesafen Sodium Salt Not Available

Environmental Fate Fomesafen Sodium Salt:

The information presented here is for the active ingredient, fomesafen. Persistent in soil. Stable in water. Highly mobile in soil. Will leach. Sinks in water (after 24 h).

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.

DISPOSAL

Do not contaminate water, food or feed by storage. Pesticide wastes are acutely 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

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT Classification: Ground Transport Not Regulated
B/L Freight Classification Herbicides, NOI (NMC Class 60)

SECTION 15. REGULATORY INFORMATION

TSCA list: Exempt from TSCA, subject to FIFRA

SARA Title III

Section 311/312

Acute Health Hazard
Chronic Health Hazard

Section 313 Chemical(s)

Fomesafen Sodium Salt (22.1%) (CAS No. 108731-70-0)

CA Prop65: Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ): Not Applicable

RCRA Hazardous Waste Classification (40 CFR 261): Not Applicable

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association): Health - 2 Flammability - 1 Reactivity - 0 Others - none
0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions.

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