



Material Safety Data Sheet

SECTION 1. IDENTIFICATION

Product Name: Fomesafen 2SL Herbicide
EPA Registration No.: 87655-2-84237
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 3;

SIGNAL WORD Danger

HAZARD STATEMENTS

CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. DUE TO CORROSIVE NATURE, MAY BE HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. Do not get in eyes, on skin or on clothing. Avoid breathing vapors or spray mist.

PICTOGRAMS



SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Fomesafen (Sodium salt of fomesafen [5-[2-chloro-4-trifluoromethyl]phenoxy]-N-(methylsulfonyl)-2-nitrobenzamide])	108731-70-0	22.8

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.

Eye Contact

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.

Skin Contact

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.

Ingestion

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.

Inhalation

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 center or doctor for further treatment advice.

Note to Physician

Probable mucosal damage may contraindicate the use of gastric lavage. There is no specific antidote for this product; treat symptomatically. Persons suffering a temporary allergic reaction may respond to treatment with systemic steroids or antihistamines.

Medical Conditions Likely to be Aggravated by Exposure

None known.

SECTION 5. FIRE FIGHTING MEASURES

FIRE EXTINGUISHING EQUIPMENT:

Use dry chemical, foam or CO2 extinguishing media.

FIRE AND EXPLOSION HAZARDS:

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

PPE FOR FIREFIGHTERS/FIRE FIGHTING INSTRUCTIONS:

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

PERSONAL PRECAUTIONS

In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter. Where eye contact is likely, use chemical splash goggles. 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

EMERGENCY PROCEDURES

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.

METHODS FOR CLEANING UP

Cover entire spill with absorbing material and place into compatible disposal container.

CLEANUP PROCEDURES

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.

SECTION 7. HANDLING AND STORAGE

HANDLING PROCEDURES

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate or Viton
- Shoes plus socks
- Protective eyewear (goggles, face shield or safety glasses)

STORING PROCEDURES

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.

WORK/HYGIENIC PROCEDURES

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

EXPOSURE LIMITS

Sodium Salt of Fomesafen: ACGIH TLV – NA, OSHA PEL – NA,

ENGINEERING CONTROLS

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate or Viton
- Shoes plus socks
- Protective eyewear (goggles, face shield or safety glasses)

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 no such instruction for washables exists, use detergent and hot water. Keep and wash PPE separately from other laundry.

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	1.106 at 20 °C
Melting / Freezing Point	Not Applicable
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

CHEMICAL STABILITY

Stable at normal temperatures and storage conditions.

OTHER (Incompatibility, conditions to avoid, decomposition)

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.	

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)

Target Organs

Active Ingredients Fomesafen Sodium Salt: Liver (based on Fomesafen Technical)

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).

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

Completely empty bag into application equipment. Then dispose of empty package in a sanitary landfill or by incineration, or, if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

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.

Revision Date : 05-29-15