

MATERIAL SAFETY DATA SHEET

ETHOTRON SC Herbicide

Version: 1

Date Issued: 9/24/02

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company: United Phosphorus, Inc.
423 Riverview Plaza
Trenton, NJ 08611
Product Use Information: (609) 392-8200 or upi-usa.com
Product Name: **ETHOTRON SC Herbicide**
Chemical Name: 2-ethoxy-2,3-dihydro-3,3-dimethyl-5-benzofuranyl
methanesulfonate (active ingredient ethofumesate)
Product Use Description: Sugar beet and grass seed herbicide

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS No.	Concentration % by Weight Minimum
Ethofumesate	26225-79-6	42.0000
INERT INGREDIENTS		58.0000

INERT INGREDIENTS (58%; Trade Secret): None of the inert ingredients are OSHA or ACGIH regulated chemicals and therefore, are not listed above.

SECTION 3 HAZARDS IDENTIFICATION

Emergency Overview Caution. Harmful if swallowed, inhaled or absorbed through the skin. No specific effects on humans are known under normal use conditions.

Physical State Creamy white liquid with faint organic sulfur odor

Routes of Exposure Mist inhalation, skin contact.

Immediate Effects

Eye Eye irritation is slight or negligible.

Skin Skin irritancy is slight or negligible. Not a skin sensitizer under normal use.
Harmful if absorbed through skin.

Ingestion Harmful if swallowed. No specific effects on humans are known.

Inhalation Harmful if inhaled. No specific health effects are known.

Chronic or Delayed Long-Term No component of this product is listed as a carcinogen by NTP, IARC, or OSHA.

Medical Conditions

Aggravated by Exposure None known

Signs and Symptoms No effects of overexposure have been observed in humans.

SECTION 4 FIRST AID MEASURE

EYE Rinse immediately with plenty of water for at least 15 minutes.

SKIN Wash with plenty of soap and water. Seek medical attention.

INGESTION Call a physician or Poison Control Center. Drink one or two glasses of water and induce vomiting by touching the back of the throat with finger, or by giving 1 ounce of syrup of ipecac, if available.
Do not give anything by mouth to an unconscious person.

INHALATION Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

NOTE TO PHYSICIAN Supportive care and symptomatic treatment. A slight or negligible eye irritant.

MATERIAL SAFETY DATA SHEET

ETHOTRON SC Herbicide

Version: 1

Date Issued: 9/24/02

SECTION 5

FIRE FIGHTING MEASURES

FLASH POINT: Not combustible.
FIRE AND EXPLOSION None
EXTINGUISHING MEDIA Dry powder, foam, carbon dioxide (CO₂), water
FIRE FIGHTING INSTRUCTIONS Fire fighters should wear self-contained breathing apparatus.

SECTION 6

ACCIDENTAL RELEASE MEASURES

GENERAL AND DISPOSAL Use proper protective equipment to minimize personal exposure (see Section 8). Take all necessary action to prevent and to remedy the effects of the spill. Ensure that the disposal is in compliance with Federal or local disposal regulations. Notify the appropriate authorities immediately. See Section 15 for any applicable Reportable Quantity (RQ) and other federal regulatory information.
LAND SPILLS OR LEAKS Stop leak if it can be done without risk. Take up with sand or other non-combustible material and place into a clean container for later disposal. Report immediately to authorities if liquid enters watercourse or sewer.

SECTION 7

HANDLING AND STORAGE

HANDLING PROCEDURES Caution. Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes and clothing. Avoid breathing vapors and mists. In case of contact, immediately flush eyes or skin with plenty of water.
STORAGE PROCEDURES Store in an area suitable for herbicide, and away from children and pets. PROTECT ETHOTRON SC FROM FREEZING TEMPERATURES.
WORK/HYGIENIC PROCEDURES 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. Wash the outside of gloves before removing.

SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS Use with adequate ventilation. Local exhaust ventilation may be necessary, when used in a confined area.
EYE/FACE PROTECTION Safety glasses or splash goggles
BODY PROTECTION Apron PVC or rubber gloves
RESPIRATORY PROTECTION Ensure adequate ventilation.

NOTE TO APPLICATORS AND HANDLERS OF AGRICULTURAL PRODUCTS:

For agricultural products which are within the scope of the EPA Worker Protection Standards (WPS) (40 CFR Part 170). All users must refer to the statement below or the Product Label for WPS-specified Personal Protective Equipment (PPE), Restricted Entry Interval (REI) and other Precautionary Statements.

EXPOSURE LIMITS: None Established

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Creamy white
Physical State: liquid
Odor: Faint organic sulfur odor
Vapor Pressure: 6.45 x 10⁽⁻⁷⁾ mmHg (value for a.i.)

MATERIAL SAFETY DATA SHEET

ETHOTRON SC Herbicide

Version: 1

Date Issued: 9/24/02

Density: 1.14 g/ml (value for a.i.)
Boiling Point: Not available
Solubility (in water): 110 mg/l (value for a.i.)

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability Stable
Hazardous Polymerization Will not occur

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY Ethotron 50SC Formulation
Rat: LD50 > 2,100 mg/kg. Low toxicity.

ACUTE DERMAL TOXICITY Ethotron 50SC Formulation
Rat: LD50 > 4,100 mg/kg. Low toxicity.

ACUTE INHALATION TOXICITY Ethotron 50SC Formulation
Rat: LC50 (4 h.) No data available
However, low toxicity is expected for this formulated product, as indicated by the low toxicity data (LC50-rat) for the active ingredient (Ethofumesate Technical) and the non-volatile inert ingredients.

EYE IRRITATION Slight or negligible eye irritation effect

The studies below were carried out with Ethofumesate technical (97.4%), the active ingredient for this formulated product.

SUB-CHRONIC TOXICITY Results from the 90-day animal studies suggest no target organ effects under the conditions of normal handling and use.

CHRONIC TOXICITY In two-year feeding studies with animals, adverse effects were only observed at very high doses. These include: a reduced weight gain in males and increased liver weight in females (rats, 5000 ppm); an increase of liver weight in females (hamsters, 2000 ppm); an increased liver weight in both males and females (dogs, 20,000 ppm).

ASSESSMENT CARCINOGENICITY

ACGIH	None
NTP	None
IARC	None
OSHA	None

REPRODUCTIVE CARCINOGENICITY No adverse effects of ethofumesate were observed in a three generation rat study.

TERATOGENICITY No teratogenic effects were seen in rats at dose levels up to 80 mg/kg/day. In rabbits, no adverse effects of biological significance were observed at the low dose (30 mg/kg/day); slight embryo-lethal effects were noted at 300 mg/kg/day; severe maternal toxicity and moderate embryo-lethal effects were observed at the highest dose (3,000 mg/kg/day). No malformations were observed even at the highest dose.

MUTAGENICITY Ethofumesate was not mutagenic or genotoxic when tested in the Ames gene mutation assay and in four other mutagenesis systems.

MATERIAL SAFETY DATA SHEET

ETHOTRON SC Herbicide

Version: 1

Date Issued: 9/24/02

SECTION 12 ECOLOGICAL INFORMATION

ENVIRONMENTAL PRECAUTIONS 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 apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters. Do not graze livestock on treated crops.

SECTION 13 DISPOSAL CONSIDERATIONS

GENERAL DISPOSAL GUIDANCE Waste, including spills or rinsates, and leftover pesticide that cannot be used according to label instructions must be disposed of according to applicable federal, state or local procedures.

RCRA CLASSIFICATION Not Regulated under this Statute

SECTION 14 TRANSPORT INFORMATION

PROPER SHIPPING NAME None

DOT SHIPPING LABEL None

SECTION 15 REGULATORY INFORMATION

U.S. FEDERAL REGULATORY

TSCA list	None
TSCA 12b export notification	None
SARA Title III - section 302 - notification and information	None
SARA Title III - section 313 - toxic chemical release reporting	None

U.S. STATES REGULATORY

CA Prop 65 This product does not contain any substances known to the State of California to cause cancer. This product does not contain any substances known to the State of California to cause reproductive harm.

US STATE RIGHT-TO-KNOW INGREDIENTS None

ENVIRONMENTAL

CERCLA	None
Clean Water Section 307 Priority Pollutants	None
Safe Drinking Water Act Maximum Contaminant Levels	None

SECTION 16 OTHER INFORMATION

	Health	Flammability	Reactivity	Others
HMIS	1	0	0	C
NFPA	1	0	0	none

NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN.

The information provided herein relates to the specific product designated and may not be valid where such product is used in combination with any other materials or in any process. This Material Safety Data Sheet (MSDS) serves different purposes other than, and DOES NOT REPLACE OR MODIFY, THE EPA-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 labeling provides that information specifically for product use in the ordinary course.