

Product Name: ETHO SC
MSDS Number : A001
Version Date: August 30, 2001

Page 1 of 10

Material Safety Data Sheet

----- 1. CHEMICAL PRODUCT and COMPANY IDENTIFICATION -----

Product Name: ETHO SC

MSDS Number : A001

Chemical Name: 2-ethoxy-2,3-dihydro-3,3-dimethyl-5
benzofuranyl methanesulfonate (active ingredient)

Chemical Formula: C13H18O5S (active ingredient)

EPA Registration Number: 73917-2

AgValue, Inc.

1124 N. Chinowth Ave.

Visalia, CA 93291

UNITED STATES

PRODUCT USE:

END-USE PRODUCT DESCRIPTION: Herbicide for use on Sugar Beets
and Grass Seed.

----- 2. COMPOSITION / INFORMATION on INGREDIENTS -----

Component	Cas number	%
Ethofumesate	26225-79-6	42%
Inert ingredients	Trade Secret	58%

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

For Product Use and Emergency Information:
AgValue, Inc. (559) 627- 6954
(CHEMTREC) (800) 424-9300 24 Hours/Day

-----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. The product is a creamy white liquid with a faint organic sulfur odor.

POTENTIAL HEALTH EFFECTS

ROUTES OF EXPOSURE:

Mist inhalation, skin contact.

SIGNS AND SYMPTOMS OF EXPOSURE:

EFFECTS OF OVEREXPOSURE: No effects of overexposure have been observed in humans.

IMMEDIATE EFFECTS

SKIN:

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

EYES:

Eye irritancy is slight or negligible.

INHALATION:

Harmful if inhaled. No specific effects on humans are known.

INGESTION:

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

DELAYED/LONG TERM EFFECTS

CARCINOGENIC:

CARCINOGENICITY: No component of this product is listed as a carcinogen by NTP, IARC, or OSHA.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

None Known

Product Name: ETHO SC
MSDS Number : A001
Version Date: August 30, 2001

Page 3 of 10

-----4. **FIRST AID MEASURES**-----

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have a 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 INHALED: Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.

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 eyes. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of soap and water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

-----5. **FIRE FIGHTING MEASURES**-----

FLAMMABLE PROPERTIES

Flash point: Non-combustible

Advice on protection against fire and explosion:

FIRE AND EXPLOSION HAZARDS: None

FIRE FIGHTING INSTRUCTIONS: Fire fighters should wear self-contained breathing apparatus.

Suitable extinguishing media:

Dry powder, foam, carbon dioxide, or water.

-----**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 SPILL OR LEAK: 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.

-----**7. HANDLING and STORAGE**-----

Handling:

CAUTION. Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or mist. In case of contact, immediately flush eyes or skin with plenty of water.

USERS SHOULD:

- 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 the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.
- Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.
- Do not apply this product through any type of irrigation system.

Product Name: ETHO SC
MSDS Number : A001
Version Date: August 30, 2001

Page 5 of 10

Handling: (Continued)

•For any requirements specific to your State or Tribe,
consult the agency responsible for pesticide regulation.

Storage:

Store in an area suitable for herbicide, and away from
children and pets.
PROTECT ETHO SC FROM FREEZING TEMPERATURES.

----- **8. EXPOSURE CONTROLS / PERSONAL PROTECTION** -----

Additional advice on system design:

ENGINEERING CONTROLS: Use with adequate ventilation. Local exhaust
ventilation may be necessary, when used in a confined area.

Personal protective equipment

FOR APPLICATORS AND HANDLERS (AGRICULTURAL USES): The personal
protective equipment (PPE) for agricultural uses are specified under
the Subtitle: "Note to Applicators and Handlers of Agricultural
Products."

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.

PERSONAL PROTECTIVE EQUIPMENT FOR APPLICATORS AND HANDLERS:

Applicators and handlers must wear:

- Long-sleeved shirts and pants
- Waterproof gloves
- Shoes plus socks

PERSONAL PROTECTIVE EQUIPMENT REQUIRED FOR EARLY ENTRY INTO TREATED
AREAS:

Do not allow worker entry into treated area during the restricted
entry interval (REI) of 12 hours.

Product Name: ETHO SC
MSDS Number : A001
Version Date: August 30, 2001

Page 6 of 10

Personal protective equipment (Continued)

EXCEPTION: If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated." PPE required for early entry into treated area that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

FOR MANUFACTURING AND PACKAGING EMPLOYEES: The personal protective equipment (PPE) in accordance with OSHA standards are recommended immediately below.

Body protection:

PVC or rubber gloves. Apron recommended.

Eye protection:

Safety glasses or splash goggles.

Respiratory protection:

Ensure good ventilation.

EXPOSURE GUIDELINES:

Ethofumesate (26225-79-6)
Manufacturer's Recommended Limit (TWA): 10 mg/m3

Although general guidance has been provided, the degree of protection required in a particular situation depends on factors such as concentration and duration. More detailed advice on personal protective devices is available from AgValue, Inc.

Product Name: ETHO SC
MSDS Number : A001
Version Date: August 30, 2001

Page 7 of 10

Print date -- August 7th, 2000 11:38 a. m. (E) PS PSA PSFHV -- 1.7 (7/10)

-----9. PHYSICAL and CHEMICAL PROPERTIES-----

APPEARANCE: Creamy white liquid

ODOR: Faint organic sulfur odor

BASIC PHYSICAL PROPERTIES

PHYSICAL STATE: Liquid

BOILING POINT: Not available

VAPOR PRESSURE: 6.45×10^{-7} mmHg (value for a.i.)

SOLUBILITY (H2O): 110 mg/l (value for a.i.)

DENSITY: 1.14 g/ml (value for a.i.)

-----10. STABILITY and REACTIVITY -----

CHEMICAL STABILITY:

Stable

HAZARDOUS POLYMERIZATION:

Will not occur

-----11. TOXICOLOGICAL INFORMATION -----

EYE EFFECTS

Slight or negligible eye irritation effect.

SKIN EFFECTS

Dermal LD50 (rat): > 4,100 mg/kg (low toxicity) (data was from a recent study using a very similar (ETHO 50SC formulation (CR18654/07))).

ACUTE ORAL EFFECTS

Oral LD50 (rat): > 2,100 mg/kg (low toxicity) (data was from a recent study using a very similar (ETHO SC formulation (CR18654/07))).

ACUTE INHALATION EFFECTS

Inhalation LC50 (rat-4hrs.): No data is 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.

-----11. TOXICOLOGICAL INFORMATION (Continued)-----

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

SUBCHRONIC (TARGET ORGAN EFFECTS)

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

CHRONIC (CANCER INFORMATION) 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).

CARCINOGENICITY: NTP: No IARC: No OSHA: No

TERATOGENICITY (BIRTH DEFECTS)

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 embryolethal effects were noted at 300 mg/kg/day; severe maternal toxicity and moderate embryolethal effects were observed at the highest dose (3,000 mg/kg/day). No malformations were observed even at the highest dose.

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

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

-----**12. ECOLOGICAL INFORMATION**-----

ENVIRONMENTAL HAZARDS: Do not apply directly to water, or 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.

-----**13. DISPOSAL CONSIDERATIONS**-----

PROPER WASTE DISPOSAL: 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:

RCRA hazardous waste ingredients: None; none are listed by RCRA.

-----**14. TRANSPORT INFORMATION**-----

PROPER SHIPPING NAME: None

DOT SHIPPING LABEL: None

-----**15. REGULATORY INFORMATION**-----

STATE REGULATIONS

The following chemicals associated with the product are subject to the right-to-know regulations in these states: No components regulated

U.S. FEDERAL REGULATIONS

SARA TITLE III NOTIFICATION AND INFORMATION: The product contains no SARA Title-III regulated ingredients (Sections 304,302).

TSCA inventory status

Product Name: ETHO SC
MSDS Number : A001
Version Date: August 30, 2001

Page 10 of 10

U.S. FEDERAL REGULATIONS (Continued)

These components are not listed:
Ethofumesate 42% (26225-79-6)
Inert ingredients 58%

SARA 313: No components listed

INTERNATIONAL REGULATIONS

Ethofumesate (26225-79-6): **EINECS**

WHMIS INGREDIENT DISCLOSURE LISTED COMPONENTS:

This product is a registered pesticide under US FIFRA regulations and is therefore exempted from WHMIS classifications . The data from toxicity studies also indicate that this product is not a Controlled Product under the WHMIS classification criteria.

-----**16. OTHER INFORMATION**-----

HAZARD RATINGS

	HEALTH	FLAMM	REACT	OTHER
NFPA	1	0	0	None
HMIS	1	0	0	C

DISCLAIMER:

THIS INFORMATION IS PROVIDED IN GOOD FAITH BUT WITHOUT EXPRESS OR IMPLIED WARRANTY.