

Product Name: NORTRON® SC HERBICIDE  
Product Code: 15513  
MSDS Number : C2945  
Version Date: May 11 2000

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## Material Safety Data Sheet

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Print date -- August 7th, 2000 11:38 a.m. (E) PS PSA PSFHV -- 1.1 (1/10)

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

**Product Name:** NORTRON® SC HERBICIDE  
**Product Code:** 15513  
**MSDS Number :** C2945

Chemical Name: 2-ethoxy-2,3-dihydro-3,3-dimethyl-5-benzofuranyl methanesulfonate (active ingredient)  
Chemical Formula: C<sub>13</sub>H<sub>18</sub>O<sub>5</sub>S (active ingredient)  
EPA Registry Number: 264-613

Canadian Reg. No. (NORTRON SC): 17293 P.C.P. ACT

AVENTIS CROP SCIENCE USA LP  
2 T.W. ALEXANDER DRIVE  
RESEARCH TRIANGLE PK, NC 27709  
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.

**SYNONYMS:** CR 19035 (NORTRON SC)  
Nortron Flowable; Nortron GS

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(CHEMTREC) (800) 424-9300 24 Hours/Day

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### ----- 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

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#### ----- 4. FIRST AID MEASURES -----

**After contact with skin:**

Wash with plenty of soap and water. Get medical attention.

**After contact with eyes:**

Immediately flush with plenty of water for at least 15 minutes.

**After inhalation:**

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

**After ingestion:**

Call a physician or Poison Control Center. Drink one or two glasses of water and induce vomiting by touching back of throat with finger. Do not give anything by mouth to an unconscious person.

**Hints for the physician:**

Supportive care and symptomatic treatment (a slight or negligible eye irritant).

#### ----- 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.

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## ----- 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

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### Handling: (Continued)

irrigation system.

- 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 NORTRON 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.

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### 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/m<sup>3</sup>

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 Aventis.

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## ----- 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 x 10<sup>(-7)</sup> mmHg (value for a.i.)

SOLUBILITY (H<sub>2</sub>O): 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 LD<sub>50</sub> (rat): > 4,100 mg/kg (low toxicity) (data was from a recent study using a very similar Nortron 50SC formulation (CR 18654/07)).


### ACUTE ORAL EFFECTS

Oral LD<sub>50</sub> (rat): > 2,100 mg/kg (low toxicity) (data was from a recent study using a very similar Nortron 50SC formulation (CR18654/07)).

### ACUTE INHALATION EFFECTS

Inhalation LC<sub>50</sub> (rat-4hrs.): No data is available. However, low toxicity is expected for this formulated product, as indicated by the low toxicity data (LC<sub>50</sub>-rat) for the active ingredient (Ethofumesate technical) and the non-volatile inert ingredients.

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----- **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 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.


**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.

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## ----- 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

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## 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

Die folgende(n) Chemikalie(n), die mit dem Produkt verbunden sind, sind auch auf folgenden internationalen Listen aufgeföhrt:  
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

### REVISED SECTIONS:


MSDS REVISION INDICATOR: New Format, Company Name and EPA Number.

PREPARED BY: Dept. of Regulatory Affairs  
PHONE: 800-438-5837  
SUPERCEDES MSDS DATED: 10/07/96

### DISCLAIMER:

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