



The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

DuPont
Material Safety Data Sheet

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M0000519 "COTORAN" 80DF HERBICIDE
Revised 28-JUL-2004

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Tradenames and Synonyms

COTORAN

Tradenames and Synonyms (Remarks)

Cotoran is a registered trademark of Makhteshin Agan North America

Company Identification

MANUFACTURER/DISTRIBUTOR

Griffin L.L.C. (USA)
2509 Rocky Ford Road
P.O. Box 1847
Valdosta
GA.
USA
31603-1847

PHONE NUMBERS

Product Information : 1-800-441-7515 (outside U.S. 302-774-1000)
Transport Emergency : CHEMTREC:1-800-424-9300(outside US
703-527-3887)
Medical Emergency : 1-800-441-3637 (outside U.S.
302-774-1000)

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
*FLUOMETURON	2164-17-2	80
1,1-DIMETHYL-3-(A,A,A-TRIFLUORO-M-TOLYL)UREA		
INERT INGREDIENTS		20

* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

HAZARDS IDENTIFICATION

Emergency Overview

Causes eye irritation. Harmful if inhaled, absorbed through the skin, or swallowed. Avoid contact with eyes, skin, or clothing.

Potential Health Effects

Inhalation: Slightly toxic.
Eye Irritation: Mildly irritating. Studies with rabbits have shown very slight temporary redness or swelling of the eyelids can occur.
Skin Irritation: Not available. See Tox Section for more information.
Skin Absorption: Harmful if absorbed through the skin.
Ingestion: Harmful if swallowed. Fluometuron is a substituted urea herbicide.
Chronic: Fluometuron Technical has been assayed for chronic toxicity and carcinogenicity in rats and mice. In rats, a treatment-related increase of hemosiderin pigment in the spleen was seen as the only adverse effect. No increase in tumors was found in either animal study. Another study reports a borderline statistical significance for the incidence of liver tumors in male mice.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

FIRST AID MEASURES

First Aid

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.

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

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20

(FIRST AID MEASURES - Continued)

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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have product container or label with you when calling a poison control center or doctor, or going for treatment. For medical emergencies involving this product, call toll free 1-800-441-3637.

See Label for Additional Precautions and Directions for Use.

Notes to Physicians

There is no specific antidote for fluometuron. Induce emesis and lavage stomach. Give saline laxative and supportive therapy.

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point & Method: >200°F (TCC)
Flammable Limits: Not determined
Autoignition Temperature: Not determined

FIRE FIGHTING HAZARDS & PROCEDURES

General Hazard: Prevent human exposure to fire, smoke, fumes or products of combustion.
Extinguishing Media: Use dry chemical, carbon dioxide, water spray or foam.
Fire Fighting Equipment: Wear full protective clothing and self-contained breathing apparatus.
Hazardous
Combustion Products: Thermal decomposition may release toxic and/or hazardous gases.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill Clean Up

Sweep up and place in suitable (fiberboard) containers for later disposal.

HANDLING AND STORAGE

Handling (Personnel)

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.

Storage

Do not contaminate water, food or feed by storage.

Store in a clean, dry area. Do not store near feed, food or within the reach of children.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

PESTICIDE APPLICATORS & WORKERS

These workers must refer to the Product Label and Directions For Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170.

MANUFACTURING, COMMERCIAL BLENDING, & PACKAGING WORKERS

Ventilation: Provide local exhaust ventilation and/or general dilution ventilation to meet published exposure limits.

Respiratory Protection: Wear dual cartridge respirator for dusts and mists.

Eye Protection: Wear protective eyewear to prevent contact with this substance.

(EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

Personal Protective Equipment

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or viton.
- Shoes plus socks.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

PPE required for early entry to treated areas 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.
- Chemical-resistant gloves such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or viton.
- Shoes plus socks.

Exposure Guidelines

Exposure Limits

"COTORAN" 80DF HERBICIDE

PEL (OSHA)	: None Established
TLV (ACGIH)	: None Established

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Vapor Pressure:	Not determined
Density:	30 lbs/ft(3)
Solubility in Water:	Disperses to form a suspension. The solubility of Fluometuron technical is 100 mg/L in water.
pH:	Not determined
Boiling Point:	Not determined
Melting Point:	Not determined
Odor:	Slightly amine odor
Color:	White to off-white
Physical State:	Granule

STABILITY AND REACTIVITY

Chemical Stability

General: This material is stable under normal conditions.

Incompatible Materials: Strong acids and bases.

Hazardous Decomposition: Thermal decomposition may release toxic and/or hazardous gases.

Hazardous Polymerization: Material is not known to polymerize.

TOXICOLOGICAL INFORMATION

Animal Data

ACUTE

Inhalation: Acute inhalation LC50 >0.6 mg/L (rat - 4 hour).

Eye Irritation: Considered to be moderately irritating to the eyes of a rabbit.

Skin Irritation: Primary Irritation Index = 0.39. Considered to be a mildly irritating to the skin of a rabbit.

Skin Absorption: Acute dermal LD50 > 2,000 mg/kg.

Ingestion: Oral LD50 = 5,223 mg/kg.

ECOLOGICAL INFORMATION

Ecotoxicological Information

Fluometuron is very toxic to aquatic organisms, and may cause long-term adverse effects in the aquatic environment.

Acute Toxicity (Fluometuron)

Rainbow Trout (96-hour) LC50	:	30-47 mg/L
Bluegill Sunfish (96-hour) LC50:	:	48-96 mg/L
Daphnia magna (48-hour) LC50	:	9.9 mg/L
Mallard Oral LD50	:	2974 mg/kg
Bobwhite 8-day Dietary LC50	:	4500 ppm
Mallard 8-day Dietary LC50	:	4620 ppm

DISPOSAL CONSIDERATIONS

Waste Disposal

Do not contaminate water, food or feed by disposal.

ENVIRONMENTAL HAZARDS:

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water

(DISPOSAL CONSIDERATIONS - Continued)

mark. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Apply this product only as specified on this label.

Container Disposal

Pesticide Disposal: Do not contaminate water when disposing of equipment washwaters. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

TRANSPORTATION INFORMATION

Shipping Information

Department of Transportation (DOT): Not Regulated

International Air Transport Association
(IATA):, Not Regulated

International Maritime Organization (IMO): Not Regulated

NOTE:, Inhalation data generated using a smaller particle size than is reasonably foreseeable to be encountered by a human during transport. Since less than 10% of this substance is dust in a respirable range, this material is not regulated for transport per DOT 49 CFR 173.132 (b)(3), IATA 3.6.3.3, IMO IV / 6.1 / 2.2.3, RID / ADR 2600 / 2.5.

REGULATORY INFORMATION

U.S. Federal Regulations

OSHA:
This product is considered hazardous under the OSHA Hazardous Communication Standard (29 CFR Section 1910.1200).

TSCA:
All product components are on the TSCA Chemical Inventory.

CERCLA:
Release of this material to air, land, or water are not reportable to the National Response Center under the

(REGULATORY INFORMATION - Continued)

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to the state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.

RCRA:

When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR Section 261.33.

SARA TITLE III

311/312 Hazard Categories: This product has been reviewed according to the EPA "Hazard Categories" relating to SARA Title III, and is categorized as an acute and chronic health hazard (40 CFR Section 370.41).

313 Reportable Ingredients: This product contains a chemical listed in Section 313 above de minimis concentrations (40 CFR 372).

EPA Reg. No. 1812-323.

OTHER INFORMATION

NFPA, NPCA-HMIS

HAZARDS CLASSIFICATION:

(0-minimal, 1-slight, 2-moderate, 3-serious, 4-severe)

HMIS: HEALTH-2 FIRE-1 REACTIVITY-0

NFPA: HEALTH-2 FIRE-1 REACTIVITY-0

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS: DuPont Crop Protection
Address : Wilmington, DE 19898
Telephone : 1-888-638-7668

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS