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DuPont
Material Safety Data Sheet

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M0000518 "COTORAN" 4L HERBICIDE
Revised 22-JUL-2004

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Tradenames and Synonyms

COTORAN

Tradenames and Synonyms (Remarks)

Cotoran is a registered trademark of Makhteshin Agan

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 : 1-800-441-3637
Transport Emergency : CHEMTREC:1-800-424-9300
Medical Emergency : 1-800-441-3637

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
*FLUOMETURON	2164-17-2	41.7
1,1-DIMETHYL-3-(A,A,A-TRIFLUORO-M-TOLYL) UREA		
*ETHYLENE GLYCOL	107-21-1	
INERT INGREDIENTS		

* 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

Caution! Harmful if absorbed through skin, swallowed or inhaled. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist.

(HAZARDS IDENTIFICATION - Continued)

Potential Health Effects

Inhalation: Slightly toxic.

Eye Irritation: Moderately irritating.

Skin Irritation: Non-irritating to the skin of rabbits.

Skin Absorption: Slightly toxic if absorbed through skin.

Ingestion: Slightly toxic.

Chronic: Fluometuron Technical was not oncogenic in lifetime feeding studies with rats and mice. In rats and dogs, a treatment-related increase of iron-staining pigment was noted in the spleen and/or kidney at high doses. Fluometuron did not affect reproductive capabilities in rats over three generations, and was not mutagenic in a variety of test systems, and was not teratogenic in rats or rabbits.

Toxicity of Other Products: Ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice. There is, however, no information suggesting that ethylene glycol has caused birth defects in humans. Severe kidney damage results from swallowing large volumes of ethylene glycol.

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 ON SKIN OR CLOTHING: 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.

(FIRST AID MEASURES - Continued)

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.

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.

Have product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

Notes to Physicians

If Cotoran 4L is ingested, lavage stomach or induce vomiting. A slurry of activated charcoal in water can be left in the stomach. Give a saline laxative and supportive therapy.

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point & Method: Not applicable
Flammable Limits: Not applicable
Autoignition Temperature: Not applicable

FIRE FIGHTING HAZARDS & PROCEDURES

General Hazard: Prevent human exposure to fire, smoke, fumes or products of combustion. In case of fire, evacuate non-essential personnel from area to prevent exposure to fire, smoke, fumes, or products of combustion. Prevent the use of contaminated buildings, area, and equipment until all have been decontaminated.

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: None Known

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

Wear chemical safety glasses with side shields or chemical goggles, rubber gloves, waterproof boots, long-sleeved shirt, long pants, head covering, and a NIOSH approved pesticide respirator with organic vapor cartridge. For small spills, cover the spill with an absorbent material such as sweeping compound (cat litter). Sweep up and place in a chemical waste container. Seal the container and dispose of in an approved manner. Rinse the spill area with water to remove any residue. Do not allow wash or rinse water to contaminate water supplies.

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

Store material in a well-ventilated, secure area out of the reach of children and domestic animals. Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

Keep container closed when not in use. Do not contaminate water, food or feed by storage. Store product in original container only, away from food or feed.

EXPOSURE CONTROLS/PERSONAL PROTECTION

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.

PESTICIDE APPLICATORS & WORKERS

(EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

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.

Personal Protective Equipment

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Shoes plus socks.

Chemical-resistant gloves such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or viton.

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 polyvinyl chloride or viton or neoprene rubber.

Shoes plus socks.

Exposure Guidelines

Applicable Exposure Limits

ETHYLENE GLYCOL

PEL (OSHA)	: None Established
TLV (ACGIH)	: Ceiling: 39.4 ppm, 100 mg/m ³ , aerosol, A4
AEL * (DuPont)	: 50 ppm, 8 Hr. TWA, vapor 10 mg/m ³ , 8 Hr. TWA, particulate

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Vapor Pressure: Approximately 3 mm HG @ 20°C
Specific Gravity: 1.16 @ 20°C
Solubility in Water: 100 mg/L at 20°C
pH: 8-10 (10% suspension in water)
Boiling Point: 103 +/-3°C
Melting Point: Not applicable
Odor: Mild fruit like
Physical State: Aqueous Suspension

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: Accute inhalation LC50 >2.8 mg/L (rat-4 hour).
Eye Irritation: Considered to be mildly irritating to the eyes of a rabbit.
Skin Irritation: Considered to be non-irritating to the skin of a rabbit. Material not considered to be a skin sensitizer.
Skin Absorption: Acute dermal LD50 >2020 mg/kg (rabbit)
Ingestion: Oral LD50 = 1841 mg/kg (rat)

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

(ECOLOGICAL INFORMATION - Continued)

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.

Do not reuse product containers. Comply with appropriate disposal regulations. Landfill solids at permitted sites. Use registered transporters.

ENVIRONMENTAL HAZARDS:

This chemical is known to leach through soil into ground water under certain conditions, as a result of registered uses. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

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 contaminate water when cleaning equipment or disposing of equipment washwaters.

Pesticide Disposal:

Pesticide wastes are toxic. 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 in proper disposal methods.

Container Disposal

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, 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

REGULATORY INFORMATION

U.S. Federal Regulations

OSHA:

These products are 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 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 Part 372).

EPA Reg. No. 1812-439.

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

(Continued)

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