



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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"DuPont" "Require" Q (mp) Herbicide  
M0000703 Revised 13-FEB-2008  
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CHEMICAL PRODUCT/COMPANY IDENTIFICATION  
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Material Identification

"DuPont", "Require" are trademarks of DuPont.

Tradenames and Synonyms

DPX-QFU31  
B12578724

Company Identification

MANUFACTURER/DISTRIBUTOR

DuPont  
1007 Market Street  
Wilmington, DE 19898

PHONE NUMBERS

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

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COMPOSITION/INFORMATION ON INGREDIENTS  
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Components

Material	CAS Number	%
*SODIUM SALT OF DICAMBA (3,6-dichloro-o-anisic acid)**	1982-69-0	52.9
RIMSULFURON N-((4,6-dimethoxypyrimidin-2-yl)aminocarbonyl)- 3-(ethylsulfonyl)-2-pyridinesulfonamide)	122931-48-0	6.2
ISOXADIFEN ETHYL	163520-33-0	3.1
INERT INGREDIENTS		37.8

\* 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.

Components (Remarks)

\*\*This product contains 48.12% (3,6-dichloro-2-methoxybenzoic acid)

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HAZARDS IDENTIFICATION  
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## Emergency Overview

WARNING! Causes substantial but temporary eye injury. Wear protective eyewear. Harmful if swallowed or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing dust or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

## Potential Health Effects

Based on animal data, eye contact with may cause eye irritation with discomfort, tearing, or blurring of vision.

Based on animal data, prolonged overexposures by ingestion or inhalation may cause abnormal liver function as detected by laboratory tests.

Based on animal data, inhalation may cause irritation of the upper respiratory passages, with coughing and discomfort.

## 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.

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FIRST AID MEASURES  
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## 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.

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

IF INHALED: Remove person to fresh air. If person is not

## (FIRST AID MEASURES - Continued)

breathing, give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center for doctor for further treatment advice.

Have the 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.

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FIRE FIGHTING MEASURES  
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## Flammable Properties

May form an explosive dust/air mixture. Organic solids will burn at elevated temperatures. All products of incomplete combustion and/or decomposition have not been determined.

## Extinguishing Media

Water Fog, Foam, Dry Chemical.

## Fire Fighting Instructions

Wear self-contained breathing apparatus (SCBA) and full protective equipment.

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ACCIDENTAL RELEASE MEASURES  
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## Safeguards (Personnel)

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

Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus.

## Initial Containment

Prevent material from entering sewers, waterways, or low areas. Follow applicable Federal, State/Provincial and Local laws/regulations.

## Spill Clean Up

Sweep up spill and place in suitable container for disposal.

Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal. Wash away residue with plenty of water. Clean pickup equipment with plenty of water.

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HANDLING AND STORAGE  
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## 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. 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.

## Storage

Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place.

Keep out of reach of children.

Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal.

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EXPOSURE CONTROLS/PERSONAL PROTECTION  
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## Engineering Controls

Use only with adequate ventilation.

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. Pilots must use cockpits in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)].

## Personal Protective Equipment

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

All mixers, loaders, and applicators and other handlers must wear:

- Long-sleeve shirt and long pants.
- Chemical resistant gloves Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all > 14 mils.
- Shoes plus socks.
- Protective eyewear.

## (EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

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 worn over short-sleeve shirt and short pants.
- Chemical-resistant footwear plus socks.
- Chemical-resistant gloves, category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all > 14 mils.
- Chemical-resistant headgear for overhead exposure
- Protective eyewear.

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

## Exposure Guidelines

## Applicable Exposure Limits

## RIMSULFURON

PEL (OSHA)	: None Established
TLV (ACGIH)	: None Established
AEL * (DuPont)	: 5 mg/m <sup>3</sup> , 8 & 12 Hr. TWA, total dust

\* 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.

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PHYSICAL AND CHEMICAL PROPERTIES  
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## Physical Data

## Part A

Bulk Density : 0.69 - 0.79 g/mL  
pH : 7.0 - 8.0

## Part B

Bulk Density : 0.63 - 0.73 mg/L  
pH : 6.0 - 7.0

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STABILITY AND REACTIVITY  
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## Chemical Stability

Stable at normal temperatures and storage conditions.

## Conditions to Avoid

None known.

## Polymerization

Polymerization will not occur.

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TOXICOLOGICAL INFORMATION  
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## Animal Data

Oral LD50 : 1611 mg/kg (rat)  
(Isoxadifen Ethyl Technical)  
Dermal LD50 : > 2000 mg/kg (rabbit)  
Inhalation 4-hr. LC50 : > 5.04 mg/L (rat)

Based on data from components, this product is a moderate eye irritant, is not a skin irritant, but is a skin sensitizer in animals.

## RIMSULFURON TECHNICAL

Repeated and long-term ingestion exposures in animals with Rimsulfuron resulted in non-specific body weight, organ weight, and mild hematologic and clinical chemistry changes. A 1-year feeding study in dogs resulted in mild tracheal effects.

Rimsulfuron did not demonstrate carcinogenic effects in long-term feeding studies in rats or mice. Rimsulfuron did not cause developmental or reproductive effects in animals. Rimsulfuron did not produce genetic damage in bacterial or mammalian cell cultures or in animals.

## ISOXADIFEN-ETHYL TECHNICAL

Long term testing does not indicate carcinogenic effects. There was no indication of developmental toxicity in animal tests. Ingestion of excessive amounts by pregnant animals did cause maternal and fetal toxicity.

Isoxadifen Ethyl was not mutagenic in vitro or in vivo during genetic testing.

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ECOLOGICAL INFORMATION  
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## Ecotoxicological Information

## AQUATIC TOXICITY:

## DICAMBA

- 96-hour LC50 - Bluegill sunfish: > 1000 mg/L.
- 96-hour LC50 - Rainbow trout: 135 mg/L.
- 48-hour EC50 - Daphnia magna: 110 mg/L.
- 72-hour EC50 - Algae: 2.3 mg/L.

## AQUATIC TOXICITY:

## RIMSULFURON

- 96 hour LC50 - Rainbow trout: > 390 mg/L.
- 96 hour LC50 - Bluegill sunfish: > 390 mg/L.
- 48 hour EC50 - Daphnia magna: > 360 mg/L.
- 72 hour, EC50, Freshwater algae: 1.6 mg/L.

## AVIAN TOXICITY:

## RIMSULFURON

- Acute Oral LD50 - Bobwhite quail: > 2250 mg/kg.
- Acute Oral LD50 - Mallard duck: > 2000 mg/kg.
- Acute Dietary LC50 - Bobwhite quail: > 5620 ppm.
- Acute Dietary LC50 - Mallard duck: > 5620 ppm.

## AQUATIC TOXICITY

## ISOXADIFEN-ETHYL TECHNICAL

- 96-Hour LC50 - Rainbow trout: 0.34 mg/L.
- 96-Hour LC50 - Bluegill sunfish: 0.22 mg/L.
- 48-Hour EC50 - Daphnia magna: > 0.51 mg/L.

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DISPOSAL CONSIDERATIONS  
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## Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

Do not contaminate water, food or feed by storage or disposal. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

## 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 contaminate water by cleaning of equipment or disposal of equipment washwaters. Keep out of lakes, streams, or ponds. Apply this product only as directed on the product label.

Refer to the product label for additional application instructions relating to environmental precautions.

## (DISPOSAL CONSIDERATIONS - Continued)

## Container Disposal

Completely empty the contents of the bag into application equipment. Then, dispose of the bag in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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TRANSPORTATION INFORMATION  
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## Shipping Information

## DOT:

Proper Shipping Name: Not Regulated by DOT unless a single package contains 1000 or more pounds Dicamba. If 1000 or more pounds Dicamba describe as follows:

UN 3077, Environmentally hazardous substances, solid, n.o.s., (Dicamba), 9, PG III, RQ, (Dicamba)

Note: Add words "Marine Pollutant (Isoxadifen Ethyl)" after basic description for bulk packaging.

## IMO/IMDG:

Proper Shipping Name: UN 3077, Environmentally hazardous substances, solid, n.o.s. (Isoxadifen Ethyl), 9, PG III, Marine Pollutant

## IATA:

Not regulated for air transport.

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REGULATORY INFORMATION  
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## U.S. Federal Regulations

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes  
Chronic : No  
Fire : No  
Reactivity : No

In the United States this product is regulated by the US Environmental Protection Agency under the Federal Insecticide, Fungicide and Rodenticide Act. It is a violation of federal law to use this product in a manner inconsistent with its labeling.

EPA Reg. No. 352-761



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OTHER INFORMATION  
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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