

**DuPont™ Steadfast® Q Herbicide**

Version 2.0

Revision Date 10/28/2008

Ref. 130000044078

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : DuPont™ Steadfast® Q Herbicide  
Tradename/Synonym : DPX-QVP08 37.7 WG Blend  
NICOSULFURON (2-[[[(4,6-dimethoxypyrimidin-2-yl)aminocarbonyl]aminosulfonyl]-N,N-dimethyl-3-pyridinecarboxamide)  
RIMSULFURON (N-[(4,6-dimethoxypyrimidin-2-yl) aminocarbonyl]-3-(ethylsulfonyl)-2-pyridinesulfonamide)

MSDS Number : 130000044078  
Manufacturer : DuPont  
1007 Market Street  
Wilmington, DE 19898

Product Information : 1-800-441-7515 (outside the U.S. 1-302-774-1000)  
Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)  
Transport Emergency : CHEMTREC: 1-800-424-9300 (outside the U.S. 703-527-3887)

**SECTION 2. HAZARDS IDENTIFICATION**

## Emergency Overview

**CAUTION!**

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes and clothing.  
Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

## Potential Health Effects

This section includes potential adverse effects which could occur if this material is not used according to the label.

Skin : May cause: Irritation with discomfort or rash.

Eyes : May cause: Irritation with discomfort, pain, redness, or visual impairment.

## Inhalation

Isoxadifen-ethyl : May cause respiratory tract irritation.

## Ingestion

Rimsulfuron : Abnormal liver function

Isoxadifen-ethyl : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

## Carcinogenicity

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

**DuPont™ Steadfast® Q Herbicide**

Version 2.0

Revision Date 10/28/2008

Ref. 130000044078

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS-No.	Concentration
Nicosulfuron	111991-09-4	25.2 %
Rimsulfuron	122931-48-0	12.5 %
Isoxadifen-ethyl	163520-33-0	8.3 %
Inert Ingredients		54 %

**SECTION 4. FIRST AID MEASURES**

- Skin contact : Take off all contaminated clothing immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.
- Eye contact : 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. If eye irritation persists, consult a specialist.
- Inhalation : No specific intervention is indicated as the compound is not likely to be hazardous.
- Ingestion : No specific intervention is indicated as the compound is not likely to be hazardous.
- General advice : Have the 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.

**SECTION 5. FIRE-FIGHTING MEASURES**

- Fire and Explosion Hazard : Not a fire or explosion hazard. The material poses no explosion hazard in granular form.
- Extinguishing Media : Water spray, Foam, Dry chemical, Carbon dioxide (CO2)
- Firefighting Instructions : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Evacuate personnel and keep upwind of fire. If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Burning chemicals may produce by-products more toxic than the original material. Use water spray. Runoff from fire control may be a pollution hazard. Do not allow run-off from fire fighting to enter drains or water courses. Cool containers / tanks with water

**DuPont™ Steadfast® Q Herbicide**

Version 2.0

Revision Date 10/28/2008

Ref. 130000044078

spray. Control Runoff

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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

Safeguards (Personnel) : Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus.

Spill Cleanup : Sweep up and shovel into suitable containers for disposal.

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

**SECTION 7. HANDLING AND STORAGE**

Handling (Personnel) : Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing.

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

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

Personal protective equipment

Skin protection

: Applicators and other handlers must wear: Long sleeved shirt and long pants  
Chemical-resistant gloves, Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all greater than or equal to 14 mils Shoes plus socks 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, Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all greater than or equal to 14 mils Shoes plus socks

Protective measures

: 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.

Exposure Guidelines

Exposure Limit Values

Nicosulfuron

AEL \*

(DUPONT) 5 mg/m3 8 & 12 hr. TWA Respirable dust.

**DuPont™ Steadfast® Q Herbicide**

Version 2.0

Revision Date 10/28/2008

Ref. 130000044078

Rimsulfuron

AEL \*

(DUPONT) 5 mg/m3 8 &amp; 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.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Form	: solid, granules
Color	: light brown, tan
Odor	: slight
pH	: 5.3 - 6.3
Density	: 0.57 - 0.67 g/ml

**SECTION 10. STABILITY AND REACTIVITY**

Stability	: Stable at normal temperatures and storage conditions.
Incompatibility	: None reasonably foreseeable.
Polymerization	: Polymerization will not occur.

**SECTION 11. TOXICOLOGICAL INFORMATION**

DuPont™ Steadfast® Q Herbicide

Inhalation 4 h LC50 : &gt; 5.6 mg/l , rat

Dermal LD50 : &gt; 2,000 mg/kg , rabbit

Oral LD50 : &gt; 5,000 mg/kg , rat

Skin irritation : Mild skin irritation

Eye irritation : Moderate eye irritation

Skin sensitization : May cause sensitization by skin contact.

Nicosulfuron

Carcinogenicity : Animal testing did not show any carcinogenic effects.

Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic effects., Did not cause genetic damage in animals.

Toxicity to reproduction : Animal testing showed no reproductive toxicity.

Teratogenicity : Did not show teratogenic effects in animal experiments.

Rimsulfuron


**DuPont™ Steadfast® Q Herbicide**

Version 2.0

Revision Date 10/28/2008

Ref. 130000044078

Repeated dose toxicity	:	Oral, rat altered blood chemistry, Liver effects, Organ weight changes
Carcinogenicity	:	Did not show carcinogenic effects in animal experiments.
Mutagenicity	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Toxicity to reproduction	:	Animal testing did not show any effects on fertility.
Teratogenicity	:	Evidence suggests the substance is not a developmental toxin in animals.
Isoxadifen-ethyl		
Carcinogenicity	:	Animal testing did not show any carcinogenic effects.
Mutagenicity	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Teratogenicity	:	Animal testing showed no developmental toxicity.

**SECTION 12. ECOLOGICAL INFORMATION**
**Aquatic Toxicity**
**Nicosulfuron**

96 h LC50	:	Oncorhynchus mykiss (rainbow trout) > 1,000 mg/l
96 h LC50	:	Lepomis macrochirus (Bluegill sunfish) > 1,000 mg/l
48 h EC50	:	Daphnia magna (Water flea) > 1,000 mg/l
90 d	:	NOEC Oncorhynchus mykiss (rainbow trout) 24 mg/l

**Rimsulfuron**

96 h static test LC50	:	Oncorhynchus mykiss (rainbow trout) > 390 mg/l OECD Test Guideline 203 Information source: Internal study report
96 h static test LC50	:	Lepomis macrochirus (Bluegill sunfish) > 390 mg/l OECD Test Guideline 203 Information source: Internal study report
72 h EC50	:	Scenedesmus capricornutum (fresh water algae) 1.6 mg/l
48 h static test EC50	:	Daphnia magna (Water flea) > 360 mg/l OECD Test Guideline 202 Information source: Internal study report

**Isoxadifen-ethyl**

96 h LC50	:	Oncorhynchus mykiss (rainbow trout) 0.34 mg/l
-----------	---	---

**DuPont™ Steadfast® Q Herbicide**

Version 2.0

Revision Date 10/28/2008

Ref. 130000044078

96 h LC50	:	Lepomis macrochirus (Bluegill sunfish) 0.22 mg/l
72 h EC50	:	Pseudokirchneriella subcapitata (green algae) 1.26 mg/l
48 h	:	Daphnia magna (Water flea) 0.51 mg/l
Avian Toxicity Nicosulfuron LD50	:	Colinus virginianus (Bobwhite quail) > 2,250 mg/kg Oral
LC50	:	Colinus virginianus (Bobwhite quail) > 5,620 mg/kg Dietary
LC50	:	Anas platyrhynchos (Mallard duck) > 5,620 mg/kg Dietary
Rimsulfuron LD50	:	Colinus virginianus (Bobwhite quail) > 2,250 mg/kg US EPA Test Guideline OPP 71-1 Oral Information source: Internal study report
LD50	:	Anas platyrhynchos (Mallard duck) > 2,000 mg/kg US EPA Test Guideline OPP 71-1 Oral Information source: Internal study report
8 d LC50	:	Colinus virginianus (Bobwhite quail) > 5,620 mg/kg OECD Test Guideline 205 Dietary Information source: Internal study report
8 d LC50	:	Anas platyrhynchos (Mallard duck) > 5,620 mg/kg OECD Test Guideline 205 Dietary Information source: Internal study report
Additional 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 contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. Do not apply where/when conditions favour runoff.

**SECTION 13. DISPOSAL CONSIDERATIONS**

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

**DuPont™ Steadfast® Q Herbicide**

Version 2.0

Revision Date 10/28/2008

Ref. 130000044078

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

Container Disposal

: Container Refilling and Disposal:  
Refer to the product label for instructions.  
Do not transport if this container is damaged or leaking.  
In the event of a major spill, fire or other emergency, call 1-800-441-3637 day or night.

**SECTION 14. TRANSPORT INFORMATION**

IMDG	UN-Number	: 3077
	Proper shipping name	: Environmentally hazardous substance, solid, n.o.s.
	Class	: 9
	Packaging group	: III
	Labelling No.	: 9

Not regulated for DOT.  
Not regulated for IATA.

**SECTION 15. REGULATORY INFORMATION**

SARA 313 Regulated Chemical(s)	: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
EPA Reg. No.	: 352-774 In the United States this product is regulated by the US Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.
California Prop. 65	: Chemicals known to State of California to cause cancer, birth defects or any other harm: none known

**SECTION 16. OTHER INFORMATION**

® Registered trademark of E.I. du Pont de Nemours and Company

™ Trademark of E.I. du Pont de Nemours and Company.

Contact person : DuPont Crop Protection, Wilmington, DE, 19898, Phone: 1-888-638-7668

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Significant change from previous version is denoted with a double bar.



**DuPont™ Steadfast® Q Herbicide**

Version 2.0

Revision Date 10/28/2008

Ref. 130000044078