

**DuPont™ Realm™ Q Herbicide**

Version 2.0

Revision Date 11/06/2015

Ref. 130000094276

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™ Realm™ Q Herbicide
Tradename/Synonym : DPX-Q9W38
DPX-Q9W38 WG Blend
Rimsulfuron: N-((4,6-dimethoxypyrimidin-2-yl)aminocarbonyl)-3-(ethylsulfonyl)-2-pyridinesulfonamide

Product Use : Herbicide

Restrictions on use : This product is intended to be used as a pesticide

Manufacturer/Supplier : DuPont
4417 Lancaster Pike
Wilmington, DE 19805, USA

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. +1-703-527-3887)

SECTION 2. HAZARDS IDENTIFICATION**Product hazard category**

Serious eye damage/eye irritation Category 2B

Label content

Pictogram : not required

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Signal word : Warning

Hazardous warnings : Causes eye irritation.

Hazardous prevention measures : Wash skin thoroughly after handling.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/ attention.

Other hazards

If you mill or grind this product you may change its toxicological properties.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Rimsulfuron	122931-48-0	7.5 %
Mesotrione	104206-82-8	31.25 %
Ethyl 5,5-diphenyl-2-isoxazoline-3-carboxylate		3.75 %
Sodium alkylnaphthalene sulfonate		1 - 5 %
Modified Aromatic Sulfonate Salt		5 - 10 %
Other Ingredients		42.5 - 51.5 %

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The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4. FIRST AID MEASURES

- | | |
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| 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. |
| Inhalation | : Move 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 treatment advice. |
| Skin contact | : Take off all contaminated clothing immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center 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. Call a poison control center or doctor for treatment advice. |
| Ingestion | : Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Do not give anything by mouth to an unconscious person. |
| Most important symptoms/effects, acute and delayed | : No applicable data available. |
| Protection of first-aiders | : No applicable data available. |
| Notes to physician | : No applicable data available. |

SECTION 5. FIREFIGHTING MEASURES

- | | |
|--------------------------------|---|
| Suitable extinguishing media | : Water spray, Foam, Dry chemical, Carbon dioxide (CO2) |
| Unsuitable extinguishing media | : High volume water jet, (contamination risk) |



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- Specific hazards : No applicable data available.
- Special protective equipment for firefighters : Wear full protective clothing and self-contained breathing apparatus.
- Further information : (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers/tanks with water spray.

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. Use personal protective equipment.
- Environmental precautions : Prevent material from entering sewers, waterways, or low areas.
- Spill Cleanup : Sweep up and shovel into suitable containers for disposal.
- Accidental Release Measures : Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE

- Handling (Personnel) : Wash hands thoroughly with soap and water after handling and 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. Wash contaminated clothing before re-use.
- Handling (Physical Aspects) : Keep away from heat and sources of ignition.
- Dust explosion class : No applicable data available.
- Storage : Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in original container. Store in a cool, dry place. Keep out of the reach of children.
- Storage period : No applicable data available.

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Storage temperature : No applicable data available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls : Use only with adequate ventilation.

Personal protective equipment

Skin and body 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 exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Exposure Guidelines

Exposure Limit Values

Rimsulfuron

AEL *	(DUPONT)	5 mg/m3	8 & 12 hr. TWA	Total dust.
AEL *	(DUPONT)	2.5 mg/m3	8 & 12 hr. TWA	Respirable dust.

Sodium alkylnaphthalene sulfonate

No applicable data available.

Ethyl 5,5-diphenyl-2-isoxazoline-3-carboxylate

No applicable data available.

Mesotrione

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No applicable data available.

Modified Aromatic Sulfonate Salt
No applicable data available.

* 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

Appearance

Physical state : solid
Form : solid, granular
Color : brown

Odor : none

Odor threshold : No applicable data available.

pH : 4.0 - 5.0

Melting point/range : No applicable data available.

Boiling point/boiling range : No applicable data available.

Flash point : No applicable data available.

Evaporation rate : No applicable data available.

Flammability (solid, gas) : No applicable data available.

Upper explosion limit : No applicable data available.

Lower explosion limit : No applicable data available.

Vapour Pressure : No applicable data available.

Vapour density : No applicable data available.

Density : 0.5 - 0.7 g/cm³

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Specific gravity (Relative density)	: No applicable data available.
Water solubility	: No applicable data available.
Solubility(ies)	: No applicable data available.
Partition coefficient: n-octanol/water	: No applicable data available.
Auto-ignition temperature	: No applicable data available.
Decomposition temperature	: No applicable data available.
Viscosity, kinematic	: No applicable data available.
Viscosity, dynamic	: No applicable data available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No applicable data available.
Chemical stability	: Stable at normal temperatures and storage conditions.
Possibility of hazardous reactions	: No applicable data available.
Conditions to avoid	: None reasonably foreseeable.
Incompatible materials	: No materials to be especially mentioned.
Hazardous decomposition products	: No applicable data available.

SECTION 11. TOXICOLOGICAL INFORMATION

DuPont™ Realm™ Q Herbicide	
Inhalation 4 h Acute toxicity estimate	: > 3.2 mg/l , Rat
Dermal Acute toxicity estimate	: > 5,000 mg/kg , Rat
Dermal	: Mouse
Oral Acute toxicity estimate	: > 5,000 mg/kg , Rat



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Skin irritation : No skin irritation, Rabbit
Minimal effects that do not meet the threshold for classification.

Eye irritation : Mild eye irritation, Rabbit

Sensitisation : Did not cause sensitisation on laboratory animals., Guinea pig

Further information : Information given is based on data on the components and the toxicology of similar products.

Rimsulfuron

Repeated dose toxicity : The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions.

Oral
multiple species
-
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.
Did not show mutagenic effects in animal experiments.

Reproductive toxicity : Animal testing did not show any effects on fertility.

Teratogenicity : Evidence suggests the substance is not a developmental toxin in animals.

Mesotrione

Repeated dose toxicity : No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for classification., Reduced body weight gain, Increased liver weight, Increased kidney weight, altered hematology, eye effects, Cataracts

Carcinogenicity : Not classifiable as a human carcinogen.

Mutagenicity : Animal testing did not show any mutagenic effects.

Reproductive toxicity : No toxicity to reproduction

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Teratogenicity : Animal testing showed no developmental toxicity.

Ethyl 5,5-diphenyl-2-isoxazoline-3-carboxylate

Repeated dose toxicity : Ingestion
Mouse
- 90 dMethod: OPPTS 870.3100
No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for classification.

No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for classification.

Carcinogenicity : Not classifiable as a human carcinogen.
Animal testing did not show any carcinogenic effects.

Mutagenicity : Animal testing did not show any mutagenic effects.
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Reproductive toxicity : No toxicity to reproduction
Animal testing showed no reproductive toxicity.

Teratogenicity : Evidence suggests the substance is not a developmental toxin in animals.

Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

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.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity
Rimsulfuron


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96 h LC50	: Oncorhynchus mykiss (rainbow trout) > 390 mg/l
96 h LC50	: Lepomis macrochirus (Bluegill sunfish) > 390 mg/l
120 h EbC50	: Selenastrum capricornutum (green algae) 1.6 mg/l
48 h EC50	: Daphnia magna (Water flea) > 360 mg/l
90 d	: NOEC Oncorhynchus mykiss (rainbow trout) 110 mg/l
21 d	: NOEC Daphnia magna (Water flea) 0.82 mg/l

Mesotrione

96 h LC50	: Oncorhynchus mykiss (rainbow trout) > 120 mg/l
72 h EC50	: Pseudokirchneriella subcapitata (green algae) 4.5 mg/l
48 h EC50	: Daphnia magna (Water flea) 900 mg/l

Ethyl 5,5-diphenyl-2-isoxazoline-3-carboxylate

96 h LC50	: Lepomis macrochirus (Bluegill sunfish) 0.22 mg/l
96 h EC50	: Pseudokirchneriella subcapitata (green algae) > 1.26 mg/l
96 h NOEC	: Pseudokirchneriella subcapitata (green algae) 1.26 mg/l

Sodium alkylnaphthalene sulfonate

48 h LC50	: Oryzias latipes (Orange-red killifish) 360 mg/l
72 h EC50	: Algae 102.5 mg/l
48 h EC50	: Daphnia (water flea) 334.2 mg/l

Environmental Fate
Rimsulfuron

Biodegradability	: According to the results of tests of biodegradability this product is not readily biodegradable.
Bioaccumulation	: Does not bioaccumulate.

Sodium alkylnaphthalene sulfonate

Biodegradability	: Not readily biodegradable.
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Bioaccumulation : Bioaccumulation is unlikely.

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.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal methods - Product : Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Waste disposal methods - Container : Refer to the product label for instructions.
In the event of a major spill, fire or other emergency, call 1-800-441-3637 day or night.

Contaminated packaging : No applicable data available.

SECTION 14. TRANSPORT INFORMATION

IATA_C	UN number	: 3077
	Proper shipping name	: Environmentally hazardous substance, solid, n.o.s. (Isoxadifen-ethyl, Mesotrione)
	Class	: 9
	Packing group	: III
	Labelling No.	: 9MI
IMDG	UN number	: 3077
	Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Isoxadifen-ethyl, Mesotrione)
	Class	: 9
	Packing group	: III
	Labelling No.	: 9
	Marine pollutant	: yes (Isoxadifen-ethyl, Mesotrione)

Not regulated by DOT/49 CFR unless shipped in bulk package or by water.

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Marine Pollutants assigned UN number 3077 and 3082 in single or combination packaging containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code, IATA special provision A197, and ADR/RID special provision 375.

SECTION 15. REGULATORY INFORMATION

Other regulations : This Safety Data Sheet is for a pesticide product registered by the US Environmental Protection Agency (USEPA) and various state regulatory agencies, and is therefore also subject to certain requirements under US and state pesticide laws, including the Federal Insecticide Fungicide and Rodenticide Act (FIFRA). These requirements differ from the classification criteria and hazard information required by OSHA for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is information determined by USEPA, and various states.

Caution

Causes moderate eye irritation. Do not get in eyes or on clothing.

SARA 313 Regulated Chemical(s) : 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.

PA Right to Know Regulated Chemical(s) : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Kaolin, Sodium sulphate, Sucrose, Kieselguhr, Disodium hydrogenorthophosphate

NJ Right to Know Regulated Chemical(s) : Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Kieselguhr, Disodium hydrogenorthophosphate

EPA Reg. No. : 352-837
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.



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SECTION 16. OTHER INFORMATION

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

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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.

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