

Safety Information

DEBUT®

Herbicide

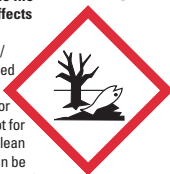
Contains 50% triflurosulfuron-methyl

Very toxic to aquatic life with long lasting effects

Collect spillage.

Dispose of contents / container to a licensed hazardous-waste disposal contractor or collection site except for triple rinsed empty clean containers which can be disposed of as non-hazardous waste.

WARNING



To avoid risks to human health and the environment, comply with the instructions for use

PCS No A00758



DuPont™

Debut®

SUGARBEET HERBICIDE

GROUP

B

HERBICIDE



PCS No A00758

A water-dispersible granule containing 50% w/w triflurosulfuron-methyl, a sulfonylurea.

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

120 g e

K-35805/31503 - IRELAND - (BASE) PAGE 2

For use only as an agricultural herbicide for the control of certain broad-leaved weeds and volunteer rape in sugar beet, fodder beet and mangolds.

Manufactured in E.U.

PROTECT FROM FROST

FOR PROFESSIONAL USE ONLY

*Du Pont (U.K.) Limited, Crop Protection Products,
Wedgwood Way, Stevenage, Herts. SG1 4QN. England
Tel: 00 44 1438 734450 or
enquiry.agproducts@gbr.dupont.com*

Emergency 24-hour telephone: (01) 901 4670

National Poisons Centre: Tel 01 837 9964 or 01 809 2166



FOR USE ONLY AS AN AGRICULTURAL HERBICIDE

For use on sugar beet, fodder beet and mangolds

Maximum individual dose: 30 grams product per hectare

Maximum number of treatments: Four per crop

Latest time of application: Before crop meets across row

Method of application: Ground Sprayer

Particulars of direct or indirect adverse effects: Very toxic to aquatic plants. Do not allow spray or spray drift to fall within 6 meters of surface waters or ditches.

READ ALL SAFETY INFORMATION BEFORE USE

SAFETY PRECAUTIONS

ENVIRONMENTAL PROTECTION

Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

DIRECTIONS FOR USE

RESTRICTIONS

- *DEBUT* must not be applied to any crop suffering from stress as a result of drought, water-logging, low temperatures, pest or disease attack, nutrient or lime deficiency or other factors reducing crop growth
- Due to the high level of activity of the herbicide, **special care must be taken to avoid damage by drift onto plants outside the target area, or onto surface waters or ditches. Thorough cleansing of equipment is also very important** - see below.
- Apply no more than four times to any sugar beet crop
- **Following Crops** - After applying *DEBUT* to a sugar beet, fodder beet or mangold crop, only cereals should be sown in the same calendar year. Any crop may be sown or planted in the following spring after a sugar beet crop treated with *DEBUT*.
- **Crop Failure** - In the event of crop failure for any reason, sow only spring barley, linseed or sugar beet within four months of application of *DEBUT*, provided this agrees with the recommendations of any partner product.

WEED CONTROL

DEBUT works mainly by foliar action. Used in conjunction with a suitable adjuvant or tank-mix herbicide partner, it controls a wide range of broad-leaved weeds. It is most effective if applied when the weeds are small and actively growing. Good spray cover of weeds must be obtained.

Susceptible plants cease growth almost immediately after application and symptoms can be seen about 5 to 10 days after application. Best results are achieved when *DEBUT* plus adjuvant or approved tank-mix partner are applied in a programme of up to four sequential sprays.

It is important to identify the weeds occurring in the crop and refer to the weed table to ensure that the weeds present are those susceptible to *DEBUT* plus appropriate tank-mix partner.

The susceptibility ratings of weeds in the following table refer to good spray cover and good growing conditions, with weed size of up to 2 true leaves.

WEED SUSCEPTIBILITY TABLE

<i>Weed Species</i>	<i>DEBUT + 0.8 L/ha desmedipham/ ethofumesate/ phenmedipham</i>	<i>DEBUT + 0.4 L/ha desmedipham/ ethofumesate/ phenmedipham</i>
Black-bindweed	S	S
Charlock	S	S
Chickweed	S	S
Cleavers	S	S
Fat hen	S	MS
Field Pansy	S	S
Fool's Parsley	S	S
Fumitory	S	S
Knotgrass	S	S
Mayweed, Scentless	S	S
Red Dead-nettle	S	S
Redshank	S	S
Small Nettle	S	S
Volunteer Oilseed Rape	S	S

S = Fully susceptible MS = Moderately susceptible

WEED RESISTANCE

When herbicides with the same mode of action are used repeatedly over several years in the same field, selection of resistant biotypes can take place. These can propagate and may become dominating. A weed species is considered resistant to a herbicide if it survives a correctly-applied treatment at the recommended dose.

For the control of Corn Marigold and Chickweed, this product must always be applied in a mixture with an alternate mode of action herbicide at recommended rates.

Development of resistance within a weed species can be avoided or delayed by alternating (or tank mixing) with suitable products having a different mode of action.

CROP

DEBUT can be used on all varieties of sugar beet, fodder beet and mangolds at the growth stages given below.

TIMING

The first application should be made in the spring when the first weeds have emerged. Subsequent applications should be made every 5 - 14 days when new flushes of weeds are at or just past the cotyledon stage.

Do not apply *DEBUT* after the crop has met between the rows. Do not apply *DEBUT* more than four times to any sugar beet, fodder beet or mangold crop.

DEBUT mixtures can be applied from the early cotyledon stage of sugar beet, fodder beet or mangolds as part of a planned programme following pre-emergence application of *VENZAR FLOWABLE* or chloridazon-based products at commercially recommended doses.

SOIL

DEBUT can be used on all soil types. Weed control may be reduced when soil conditions are very dry.

WEATHER

Avoid high light intensity (full sunlight) and high temperatures (above 21°C) on the day of spraying. Avoid periods of substantial day to night temperature changes or when frost is expected.

DOSE

DEBUT should be applied at 30 g/ha in conjunction with a recommended adjuvant or suitable herbicide tank-mix partner(s).

VOLUME AND APPLICATION

BEFORE USING *DEBUT*, SPRAYING EQUIPMENT MUST BE CLEAN AND FREE FROM CONTAMINATION WITH OTHER PESTICIDES.

OVERALL APPLICATION

DEBUT should be applied overall in 80 - 150 litres of water per hectare, using suitable equipment to give a FINE spray, as defined by BCPC. Good, even spray cover of the weeds is essential for best results.

When applying *DEBUT*, care should be taken not to overlap spray swaths.

BAND APPLICATION

Similar doses, water volumes and spray quality should be used as in overall application, but the area covered will be dependent upon the row spacing and band width. Careful calibration is essential to achieve best results.

MIXING

DEBUT mixes easily with water, but the following mixing procedure should be followed: Quarter fill the spray tank with water and start the agitation. Add the required quantity of *DEBUT* directly to the tank.

Continue agitation while topping up the tank and while spraying. Use the tank the same day as mixing.

COMPATIBILITY

In any tank-mix add *DEBUT* to the tank first and ensure it is fully dispersed before adding the partner product(s).

To widen the spectrum of activity, *DEBUT* should be tank-mixed with an adjuvant or with other herbicides (see WEED SUSCEPTIBILITY table). Products should only be tank-mixed if each product can be applied within the manufacturer's label recommendation for its use.

DEBUT can be tank-mixed with approved formulations of products containing 25 g/L desmedipham, 75 g/L phenmedipham plus 151 g/L ethofumesate and/or VENZAR® FLOWABLE or approved formulations of metamitron to control a broader range of weeds.

To avoid antagonism, metamitron (70%) should not be added in excess of 0.5 kg/ha.

When *DEBUT* tank-mixes are used in sequence with graminicides, the minimum time interval should be observed between applications in accordance with the manufacturer's recommendations.

WARNING

EXTREME CARE SHOULD BE TAKEN TO AVOID DAMAGE BY DRIFT OF SPRAY ONTO PLANTS OUTSIDE THE TARGET AREA OR ONTO SURFACE WATERS OR DITCHES. SPRAYING EQUIPMENT SHOULD NOT BE DRAINED OR FLUSHED ONTO LAND PLANTED WITH OR INTENDED FOR PLANTING WITH TREES OR CROPS OTHER THAN SUGAR BEET, FODDER BEET OR MANGOLDS.

SPRAY TANK CLEAN-OUT

TO AVOID SUBSEQUENT DAMAGE TO CROPS OTHER THAN SUGAR BEET, FODDER BEET OR MANGOLDS IMMEDIATELY AFTER SPRAYING DEBUT THOROUGHLY CLEAN ALL SPRAY EQUIPMENT INCLUDING INSIDE AND OUTSIDE OF LID USING ALL CLEAR® EXTRA SPRAYER CLEANER ACCORDING TO THE LABEL INSTRUCTIONS.

ALTERNATIVELY USE THE FOLLOWING PROCEDURE:

1. Immediately after spraying, drain tank completely. Any contamination on the outside of the spraying equipment should be removed by washing with clean water.
2. Rinse inside of tank with clean water and flush through boom and hoses using at least one-tenth of the spray tank volume. Drain tank completely.
3. Half fill tank with clean water and add 1/3 litre household ammonia (contains 9.5% ammonia) for each 100 litres of tank volume. (Equivalent amounts of alternate strength ammonia solutions can be used providing the final concentration in the full tank is 0.03%). Agitate and then flush the boom and hoses with the cleaning solution. Top up with water making sure the tank is completely full and allow to stand for 15 minutes with agitation. Again flush the boom and hoses and drain tank completely.
4. Nozzles and filters should be removed and cleaned separately with ammonia solution at the same concentration as used for the sprayer.
5. Rinse the tank with clean water and flush through the boom and hoses using at least one-tenth of the spray tank volume. Drain tank completely.
6. For disposal of washings, follow local and national regulations. Do not spray onto sensitive crop or land intended for cropping with sensitive crop.

NOTE:

- If it is not possible to drain the tank completely, step 3 must be repeated before going on to step 4.
- Follow washout instructions and only use recommended tank-mixtures.
- Failure to thoroughly clean your sprayer after use can result in damage to sensitive crops sprayed later.
- DEBUT is non-corrosive to equipment, non-flammable and non-volatile.

NOTICE TO BUYER

All goods supplied by us are of a high grade and we believe them to be suitable for any purpose for which we expressly supply them, but as we cannot exercise control over their mixing or use, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded and no responsibility will be accepted by us for any damage or injury whatsoever arising from their storage, handling, application or use.

SPECIMEN -
2015 to date

® ALL CLEAR is a trademark and VENZAR® FLOWABLE is a registered trademark of E. I. du Pont de Nemours and Company.

All manufacturer trademarks are duly acknowledged.

SAFETY DATA SHEET according to Regulation (EC) No 1907/2006 and 453/2010

DEBUT®

Version 5.0 (replaces: Version 4.0)

Revision Date 10.01.2014

Ref. 130000000832

This Safety Data Sheet adheres to the standards and regulatory requirements of Republic of Ireland and may not meet the regulatory requirements in other countries.

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product name: DEBUT®
 Synonyms: B10048183
 DPX-66037 50WG

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture: Herbicide

1.3. Details of the supplier of the safety data sheet

Company: Du Pont (UK) Limited
 Wedgwood Way
 Stevenage, Herts. SG1 4QN
 United Kingdom

Telephone: +44 (0) 1438 734 000

E-mail address: sds-support@che.dupont.com

1.4. Emergency telephone number

Emergency telephone number: (01) 901 4670

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Acute aquatic toxicity, Category 1 H400: Very toxic to aquatic life.
 Chronic aquatic toxicity, Category 1 H410: Very toxic to aquatic life with long lasting effects.
 Dangerous for the environment: R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements**Warning**

H410 Very toxic to aquatic life with long lasting effects.

Special labelling of certain substances and mixtures:

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

P391 Collect spillage.

P501 Dispose of contents/container to a waste disposal plant in accordance with local, regional and national legislations.

SP 1 Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

Registration number	Classification according Directive 67/548/EEC	Classification according Regulation (EU) 1272/2008 (CLP)	Concentration
---------------------	---	--	---------------

Triflurosulfuron-methyl (CAS-No. 126535-15-7)

N: R50/53	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	50 %
-----------	--	------

The above products are REACH compliant; Registration number(s) may not be provided because substance(s) are exempted, not yet registered under REACH or are registered under another regulatory process (biocide uses, plant protection products), etc.

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice: Never give anything by mouth to an unconscious person. For specialist advice physicians should contact the National Poisons Information Service: Tel. (01) 837 9964 or (01) 809 2166

- Inhalation:** Move to fresh air. Consult a physician after significant exposure. Artificial respiration and/or oxygen may be necessary.
- Skin contact:** Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. In the case of skin irritation or allergic reactions see a physician. Wash contaminated clothing before re-use.
- Eye contact:** If easy to do, remove contact lens, if worn. Hold eye open and rinse slowly and gently with water for 15-20 minutes. If eye irritation persists, consult a specialist.
- Ingestion:** Obtain medical attention. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is conscious: Rinse mouth with water.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms: No cases of human intoxication are known and the symptoms of experimental intoxication are not known.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Water spray, Dry chemical, Foam, Carbon dioxide (CO₂)
Extinguishing media which shall not be used for safety reasons: High volume water jet, (contamination risk)

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting: Hazardous decomposition products formed under fire conditions. Carbon dioxide (CO₂) Nitrogen oxides (NO_x)

5.3. Advice for firefighters

Special protective equipment for firefighters: Wear full protective clothing and self-contained breathing apparatus.

Further information: Prevent fire extinguishing water from contaminating surface water or the ground water system. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

(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

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Control access to area. Keep people away from and upwind of spill/leak. Avoid dust formation. Avoid breathing dust. Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.

6.2. Environmental precautions

Environmental precautions: Prevent further leakage or spillage if safe to do so. Use appropriate container to avoid environmental contamination. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. If the spill area is porous, the contaminated material must be collected for subsequent treatment or disposal. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up: Clean-up methods - small spillage Sweep up or vacuum up spillage and collect in suitable container for disposal.

Clean-up methods - large spillage Avoid dust formation. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

If spill area is on ground near valuable plants or trees, remove 5 cm of top soil after initial clean-up.

Other information: Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

6.4. Reference to other sections

For personal protection see section 8., For disposal instructions see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling: Wash hands before breaks and immediately after handling the product.

Remove and wash contaminated clothing before re-use.

Use only according to our recommendations. Use only clean equipment. Avoid contact with skin, eyes and clothing. Do not breathe dust or spray mist. Wear personal protective equipment. For personal protection see section 8. Prepare the working solution as given on the label(s) and/or the user instructions. Use prepared working solution as soon as possible - Do not store. Provide appropriate exhaust ventilation at places where dust is formed.

Advice on protection against fire and explosion: Keep away from heat and sources of ignition. Avoid dust formation in confined areas. Under severe dusting conditions, this material may form explosive mixtures in air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Store in original container. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place. Keep out of the reach of children.

Advice on common storage: No special restrictions on storage with other products.

Other data: Stable under recommended storage conditions.

7.3. Specific end use(s)

Plant protection products subject to Regulation (EC) No 1107/2009.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

If sub-section is empty then no values are applicable.

Components with workplace control parameters

Type Form of exposure	Control parameters	Update	Basis	Remarks
--------------------------	-----------------------	--------	-------	---------

Talc (Mg₃H₂(SiO₃)₄) (asbestos-free) (CAS-No. 14807-96-6)

TWA Respirable dust.	0,8 mg/m ³	2010	ELV (IE)	
TWA Total inhalable dust	10 mg/m ³	2010	ELV (IE)	

Sucrose (CAS-No. 57-50-1)

TWA	10 mg/m ³	2010	ELV (IE)	
STEL	20 mg/m ³	2010	ELV (IE)	

8.2. Exposure controls

Engineering measures:

Ensure adequate ventilation, especially in confined areas. Provide for appropriate exhaust ventilation and dust collection at machinery. Use sufficient ventilation to keep employee exposure below recommended limits.

Eye protection:

Safety glasses with side-shields conforming to EN166

Hand protection:

Material: Nitrile rubber

Glove thickness: 0.3 mm

Glove length: Gauntlets of 35 cm long or longer.

Protection index: Class 6

Wearing time: > 480 min

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Gloves must be inspected prior to use. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Gauntlets

shorter than 35 cm long shall be worn under the combination sleeve. Gauntlets of 35 cm long or longer shall be worn over the combination sleeve. Before removing gloves clean them with soap and water.

Skin and body protection: Manufacturing and processing work: Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034)

Mixer and loaders must wear: Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034) Rubber apron Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

Spray application - outdoor: Tractor / sprayer with hood: No personal body protection normally required.

Tractor / sprayer without hood: Low application (horticulture, field crops): Full protective clothing Type 4 (EN 14605) Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

When exceptional circumstances would require an access to the treated area before the end of re-entry periods, wear full protective clothing Type 6 (EN 13034), nitrile rubber gloves class 2 (EN 374) and nitrile rubber boots (EN 13832-3 / EN ISO 20345).

To optimize the ergonomics it may be recommended to use cotton underwear when wearing some fabrics. Take advice from supplier. Garment materials that are resistant

Protective measures:

to both water vapour and air will maximise wearing comfort. Materials should be robust to maintain the integrity and barrier in use. The permeation resistance of the fabric must be verified independently of the « type » protection recommended, to ensure an appropriate performance level of the material adequate to the corresponding agent and type of exposure.

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. All chemical protective clothing should be visually inspected prior to use. Clothing and gloves should be replaced in case of chemical or physical damage or if contaminated. Only protected handlers may be in the area during application.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing. Keep working clothes separately. Contaminated work clothing should not be allowed out of the workplace. For environmental protection remove and wash all contaminated protective equipment before re-use. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing. Dispose of rinse water in accordance with local and

Respiratory protection:	national regulations. Wash hands before breaks and at the end of workday.	pH:	8.3 at 10 g/l (20 °C)
	Manufacturing and processing work: Half mask with a particle filter FFP1 (EN149)	Flammability (solid, gas):	Does not sustain combustion.
	Mixer and loaders must wear: Half mask with a particle filter FFP1 (EN149)	Oxidizing properties:	The product is not oxidizing.
	Spray application - outdoor: Tractor / sprayer with hood: No personal respiratory protective equipment normally required. Tractor / sprayer without hood: Low application (horticulture, field crops): Half mask with a particle filter P1 (EN 143).	Explosive properties:	Not explosive
	Backpack / knapsack sprayer: Low application (horticulture, field crops): Half mask with a particle filter P1 (EN 143).	Density:	0.5 GJ
		Bulk density:	35 lb/ft³, loose
		Water solubility:	dispersible
		Partition coefficient : n-octanol/water	not applicable
		Viscosity, kinematic:	not applicable
		Minimum ignition energy:	250 - 500 mJ

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form:	solid, granules
Colour:	brown
Odour:	none
Odour Threshold:	not determined

9.2. Other information

Phys.-chem./other information: No other data to be specially mentioned.

SECTION 10: Stability and reactivity

10.1. Reactivity: No hazards to be specially mentioned.

10.2. Chemical stability: The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use. Polymerization will not occur. No decomposition if stored and applied as directed.

10.4. Conditions to avoid: Exposure to moisture. Decomposes slowly on exposure to water. To avoid thermal decomposition, do not overheat. Under severe dusting conditions, this material may form explosive mixtures in air.

10.5. Incompatible materials: No materials to be especially mentioned.

10.6. Hazardous decomposition products: Hydrogen fluoride, Sulphur oxides

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

LD50 / rat : > 5,000 mg/kg

Method: OECD Test Guideline 401

(Data on the product itself) Information source: Internal study report

Acute inhalation toxicity

LC50 / 4 h rat : > 6.1 mg/l

Method: OECD Test Guideline 403

(Data on the product itself) Information source: Internal study report

Acute dermal toxicity

LD50 / rabbit : > 2,000 mg/kg

Method: OECD Test Guideline 402

(Data on the product itself) Information source: Internal study report

Skin irritation

rabbit

Result: No skin irritation

Method: OECD Test Guideline 404

(Data on the product itself) Information source: Internal study report

Eye irritation

rabbit

Classification: Irritating to eyes

Sensitisation

guinea pig

Classification: May cause sensitization by skin contact.

Repeated dose toxicity

- Triflusulfuron-methyl

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

Oral - feed multiple species

Reduced body weight gain, Liver effects, Abnormal decrease in number of red blood cells

Mutagenicity assessment

- Triflurosulfuron-methyl

Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity assessment

- Triflurosulfuron-methyl

Limited evidence of carcinogenicity in animal studies

The observed tumors do not appear to be relevant for men.

Toxicity to reproduction assessment

- Triflurosulfuron-methyl

No toxicity to reproduction

STOT - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

The mixture does not have properties associated with aspiration hazard potential.

SECTION 12: Ecological information**12.1. Toxicity****Toxicity to fish**

static test / LC50 / 96 h / *Oncorhynchus mykiss* (rainbow trout): 150 mg/l

Method: OECD Test Guideline 203

(Data on the product itself) Information source: Internal study report

Toxicity to aquatic plants

ErC50 / 72 h / *Pseudokirchneriella subcapitata* (green algae): 0.430 mg/l

Method: OECD Test Guideline 201

(Data on the product itself) Information source: Internal study report

EbC50 / 72 h / *Pseudokirchneriella subcapitata* (green algae): 0.062 mg/l

Method: OECD Test Guideline 201

(Data on the product itself) Information source: Internal study report

EbC50 / 336 h / *Lemna gibba* (duckweed): > 0.005 mg/l

Method: ASTM E 1415-91

(Data on the product itself) Information source: Internal study report

Toxicity to aquatic invertebrates

EC50 / 48 h / *Daphnia*: 1,200 mg/l

Method: OECD Test Guideline 202

(Data on the product itself) Information source: Internal study report

Toxicity to soil dwelling organisms

LC50 / 14 d / *Eisenia fetida* (earthworms): > 1,000 mg/kg

Method: OECD Test Guideline 207

(Data on the product itself) Information source: Internal study report

Toxicity to other organisms

LD50 / 48 h / *Apis mellifera* (bees): > 100 µg

Method: OECD Test Guideline 213

Oral. Information source: Internal study report

LD50 / 48 h / *Apis mellifera* (bees): > 100 µg

Method: OECD Test Guideline 214

Contact. Information source: Internal study report

Chronic toxicity to fish

- Triflusaluron-methyl

NOEC / 21 d / *Oncorhynchus mykiss* (rainbow trout): > 210 mg/l

Method: OECD Test Guideline 204

Chronic toxicity to aquatic Invertebrates

- Triflusaluron-methyl

NOEC / 21 d / *Daphnia magna* (Water flea): 11 mg/l

12.2. Persistence and degradability**Biodegradability**

Not readily biodegradable. Estimation based on data obtained on active ingredient.

12.3. Bioaccumulative potential**Bioaccumulation**

Does not bioaccumulate. Estimation based on data obtained on active ingredient.

12.4. Mobility in soil**Mobility in soil**

Potentially mobile, but the leaching potential is mitigated by rapid degradation.

12.5. Results of PBT and vPvB assessment**PBT and vPvB assessment**

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). / This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects**Additional ecological information**

No other ecological effects to be specially mentioned

See product label for additional application instructions relating to environmental precautions.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Product: In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging: Do not re-use empty containers.

SECTION 14: Transport information**ADR**

- 14.1. UN number: 3077
 14.2. UN proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Triflusulfuron methyl)
 14.3. Transport hazard class(es): 9
 14.4. Packing group: III
 14.5. Environmental hazards: Environmentally hazardous
 14.6. Special precautions for user:
 Tunnel restriction code: (E)

IATA C

- 14.1. UN number: 3077
 14.2. UN proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Triflusulfuron methyl)
 14.3. Transport hazard class(es): 9
 14.4. Packing group: III
 14.5. Environmental hazards: Environmentally hazardous
 14.6. Special precautions for user:
 DuPont internal recommendations and transport guidance: ICAO / IATA cargo aircraft only

IMDG

- 14.1. UN number: 3077
 14.2. UN proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Triflusulfuron methyl)
 14.3. Transport hazard class(es): 9
 14.4. Packing group: III
 14.5. Environmental hazards: Marine pollutant
 14.6. Special precautions for user:
 no data available
 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code not applicable



SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Other regulations: The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008. Take note of Dir 94/33/EC on the protection of young people at work. Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers. Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work. Take note of Directive 96/82/EC on the control of major-accident hazards involving dangerous substances. Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values.

15.2. Chemical Safety Assessment

A Chemical Safety Assessment is not required for this/these products. The mixture is registered as a plant protection product under Regulation (EC) No. 1107/2009. Refer to the label for exposure assessment information.

SECTION 16: Other information

Text of R-phrases mentioned in Section 3

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of H-Statements referred to under section 3.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Other information: professional use

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-No.	Chemical Abstracts Service number
CLP	Classification, Labelling and Packaging
EbC50	Concentration at which 50% reduction of biomass is observed
EC50	Median effective concentration
EN	European Norm
EPA	Environmental Protection Agency
ErC50	Concentration at which a 50% inhibition of growth rate is observed
EyC50	Concentration at which 50 % inhibition of yield is observed

IATA_C	International Air Transport Association (Cargo)
IBC	International Bulk Chemical Code
ICAO	International Civil Aviation Organization
ISO	International Standard Organization
IMDG	International Maritime Dangerous Goods
LC50	Median Lethal Concentration
LD50	Median Lethal Dose
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest observable effect level
MARPOL	International Convention for the Prevention of Marine Pollution from Ships
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No observed adverse effect level
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
OECD	Organisation for Economic Co-operation and Development
OPPTS	Office of Prevention, Pesticides and Toxic Substances
PBT	Persistent, Bioaccumulative and Toxic
STEL	Short term exposure limit
TWA	time weighted average
vPvB	very Persistent and very Bioaccumulative

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

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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The above information relates only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.

Further information

Take notice of the directions of use on the label.