

**FIREBIRD SC600 4X3L BOT IE**Version 2 / IRL
1020000079481/8
Revision Date: 20.04.2007
Print Date: 02.05.2007**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name FIREBIRD SC600 4X3L BOT IE
Product code (UVP) 05700094
Usage Herbicide
Company Bayer CropScience
Bayer Ltd
Chapel Lane, Swords
CO Dublin
Ireland
Telephone +353-1-8132222
Telefax +353-1-8132288
Emergency telephone number 1800-409-399

2. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature**

Suspension concentrate (=flowable concentrate)(SC)
Flufenacet 400 g/l, Diflufenican 200 g/l

Hazardous components

Chemical Name	CAS-No. / EINECS-No.	Symbol(s)	R-phrases(s)	Concentration [%]
Flufenacet	142459-58-3	Xn, N	R22, R43, R48/22, R50/53	32.50
Diflufenican	83164-33-4		R52/53	16.50
Glycerine	56-81-5 200-289-5			> 1.00

3. HAZARDS IDENTIFICATION**Risk advice to man and the environment**

Harmful if swallowed.
May cause sensitization by skin contact.
Harmful: danger of serious damage to health by prolonged exposure if swallowed.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES**General advice**

Move out of dangerous area. Remove contaminated clothing immediately and dispose of safely.
Place and transport victim in stable position (lying sideways).



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Inhalation

Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.

Skin contact

Wash off thoroughly with plenty of water and soap, if available with polyethyleneglycol 400, subsequently rinse with water.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

Ingestion

Do NOT induce vomiting. Call a physician or poison control center immediately. Rinse mouth.

Notes to Physician

Treatment

Treat symptomatically.

Gastric lavage is not normally required. If a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray
Carbon dioxide (CO₂)
Foam
Sand

Specific hazards during fire fighting

carbon monoxide (CO)
nitrogen oxides (NO_x)
Hydrogen fluoride
Hydrogen cyanide (hydrocyanic acid)
Sulphur oxides

Special protective equipment for fire-fighters

In the event of fire and/or explosion do not breathe fumes.
In the event of fire, wear self-contained breathing apparatus.

Further information

Contain the spread of the fire-fighting media.
Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Avoid contact with spilled product or contaminated surfaces.
Use personal protective equipment.

Environmental Precautions

Do not allow to get into surface water, drains and ground water.
If the product contaminates rivers, lakes or drains inform respective authorities.

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Clean contaminated floors and objects thoroughly, observing environmental regulations.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Keep in suitable, closed containers for disposal.

Additional Advice

Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

7. HANDLING AND STORAGE**Handling**

Advice on protection against fire and explosion
Keep away from heat and sources of ignition.

Storage

Requirements for storage areas and containers
Store in a place accessible by authorized persons only.
Keep containers tightly closed in a dry, cool and well-ventilated place.

Advice on common storage
Keep away from food, drink and animal feedingstuffs.

Storage stability
Storage temperature -10 - < 40 °C

Suitable materials
HDPE (high density polyethylene)

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Glycerine (Mist.)	56-81-5	10 mg/m ³ (TWA)	2002	ELV (IE)

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory Protection No personal respiratory protective equipment normally required. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand Protection Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0,40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.

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Eye protection	Wear goggles conforming to EN166 (Field of Use 5 or equivalent).
Skin and body protection	Wear standard coverall and type 3 suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.
Hygiene measures	Avoid contact with skin, eyes and clothing. Keep working clothes separately. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt). Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	suspension
Colour	white to beige
Odour	weak, characteristic

Safety data

Flash point	> 100 °C No flash point - Determination conducted up to the boiling point.
Ignition temperature	445 °C
Density	approx. 1.24 g/cm ³ at 20 °C
Water solubility	dispersible
Viscosity, dynamic	100 - 200 mPa.s at 20 °C
Viscosity, dynamic	20 - 100 mPa.s at 20 °C
Surface tension	40.6 mN/m
Explosivity	Not explosive

10. STABILITY AND REACTIVITY

Conditions to Avoid	Extremes of temperature and direct sunlight.
Hazardous Reactions	No hazardous reactions when stored and handled according to prescribed instructions.

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD50 (rat) 500 - 2,000 mg/kg
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Acute Inhalation Toxicity	LC50 (rat) > 2.078 mg/l Exposure time: 4 h Highest attainable concentration.
Acute Dermal Toxicity	LD50 (rat) > 4,000 mg/kg
Skin Irritation	No skin irritation. (rabbit)
Eye Irritation	No eye irritation. (rabbit)
Sensitization	sensitizing (guinea pig) OECD Test Guideline 406, Magnusson & Kligman test

12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to Fish	LC50 (Lepomis macrochirus (Bluegill sunfish)) 2.13 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient flufenacet.
Toxicity to Fish	LC50 (Rainbow trout (Oncorhynchus mykiss)) > 109 µg/l Exposure time: 96 h The value mentioned relates to the active ingredient diflufenican. No acute toxicity was observed at its limit of water solubility.
Toxicity to daphnia	LC50 (Water flea (Daphnia magna)) 30.9 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient flufenacet.
Toxicity to daphnia	(Water flea (Daphnia magna)) > 240 µg/l Exposure time: 48 h The value mentioned relates to the active ingredient diflufenican. No acute toxicity was observed at its limit of water solubility.
Toxicity to algae	EC50 (Pseudokirchneriella subcapitata) 0.00663 mg/l Growth rate Exposure time: 72 h

13. DISPOSAL CONSIDERATIONS**Product**

It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines.

Contaminated packaging

Small containers (< 10 l or < 10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times.
Add washings to sprayer at time of filling.
Dispose of empty and cleaned packaging safely.
Follow advice on product label and/or leaflet.

Waste key for the unused product

020108 agrochemical waste containing dangerous substances

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UN-No.	3082
Labels	9
Packaging group	III
Hazard no.	90
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUFENACET, DIFLUFENICAN SOLUTION)

IMDG

UN-No.	3082
Labels	9
Packaging group	III
EmS	F-A , S-F
Marine pollutant	Marine pollutant
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUFENACET, DIFLUFENICAN SOLUTION)

IATA

UN-No.	3082
Labels	9
Packaging group	III
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUFENACET, DIFLUFENICAN SOLUTION)

15. REGULATORY INFORMATION**Classification and labelling in accordance with the EC Directive on dangerous preparations 1999/45/EC as amended.**

Classification:

Labelling according to EC Directives

Hazardous components which must be listed on the label:

- Flufenacet
- Diflufenican

Symbol(s)

Xn	Harmful
N	Dangerous for the environment

R-phrases(s)

R22	Harmful if swallowed.
R43	May cause sensitization by skin contact.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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S-phrases(s)	
S24	Avoid contact with skin.
S35	This material and its container must be disposed of in a safe way.
S37	Wear suitable gloves.
S57	Use appropriate container to avoid environmental contamination.

The classification/labelling information below is that which has been approved under 'The European Communities (Authorization, placing on the market, use and control of Plant Protection products) Regulations 2003' and any subsequent amendments and may differ from that indicated by any toxicological and/or other testing otherwise indicated in this 'Safety Data Sheet'.

Symbol(s)	
Xn	Harmful
N	Dangerous for the environment

R-phrases(s)	
R43	May cause sensitization by skin contact.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases(s)	
S 2	Keep out of the reach of children.
S13	Keep away from food, drink and animal feedingstuffs.
S35	This material and its container must be disposed of in a safe way.
S36/37	Wear suitable protective clothing and gloves.
S46	If swallowed, seek medical advice immediately and show this container or label.
S57	Use appropriate container to avoid environmental contamination.

Exceptional labelling
To avoid risks to man and the environment, comply with the instructions for use.

Further information
WHO-classification: III (Slightly hazardous)

16. OTHER INFORMATION**Further information**

Text of R phrases mentioned in Section 2:

R22	Harmful if swallowed.
R43	May cause sensitization by skin contact.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information given in this Data Sheet has been included in accordance with the guidelines established by EC Directive 1991/155/EC as amended. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The

Bayer CropScience

SAFETY DATA SHEET according to EC Directive 2001/58/EC



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required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.