

SEED TREATMENT

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY OR UNDERTAKING

IDENTIFICATION OF THE SUBSTANCE OR PREPARATION

Tradename **BERET MULTI**
 Design Code **A14192B**
 AGI Code **174860**
 Sales Code **27529/33049/31314**

COMPANY/UNDERTAKING IDENTIFICATION

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2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS

CAS-NO.	EC-NO.	CHEMICAL NAME	CONCENTRATION (%W/W)	HAZARD SYMBOLS	RISK PHRASES (R)
131341-86-1	–	fludioxonil	2.34	N	50/53
76674-21-0	–	flutriafol	2.34	Xn	20/21/22, 52/53
119432-41-6	–	poly(oxy-1,2-ethane diyl), apha-sulpho-omega- [tris(1-phenylethyl)phenoxy]-, ammonium salt	1–5	Xi	36, 52/53
9004-98-2	–	poly(oxy-1,2-ethane diyl), alpha-9-octadecenyl -omega-hydroxy-,(Z)	5–10	Xn	22, 41
57-55-6	200-338-0	propane-1,2-diol	5–10	–	–

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

3. HAZARDS IDENTIFICATION

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

General advice: Have the product container, label or Material Safety Data Sheet with you when calling the Syngenta emergency number, a Poison Control Centre or physician, or going for treatment.

Inhalation: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Control Centre immediately.

Skin contact: Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

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Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting.

Medical advice: There is no specific antidote available. Treat symptomatically.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:

Extinguishing media – small fires: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media – large fires: Use alcohol-resistant foam or water spray.

Extinguishing media which must not be used for safety reasons: Do not use a solid water stream as it may scatter and spread fire.

Specific hazards during fire fighting: As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health.

Special protective equipment for fire fighters: In the event of fire, wear self-contained breathing apparatus.

Further information: Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Refer to protective measures listed in sections 7 and 8.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up: Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13).

Additional advice: If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE

HANDLING

Advice on safe handling: No special technical protective measures required. No special handling advice required. Avoid contact with skin and eyes. When using do not eat, drink or smoke. For personal protection see section 8.

STORAGE

Requirements for storage areas and containers: No special storage conditions required. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs.

Other data: Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION**COMPONENTS WITH WORKPLACE CONTROL PARAMETERS**

Components	Exposure limit(s)	Value type	Source
fludioxonil	10 mg/m ³	8 h TWA	SYNGENTA
flutriafol	1.5 mg/m ³	8 h TWA	SUPPLIER
propane-1,2-diol	10 mg/m ³ (Particulates)	8 h TWA	UK HSE
	150 ppm 474 mg/m ³ (Total vapour & particulates)		EH40/2002

ENGINEERING MEASURES

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. If airborne mists or vapours are generated, use local exhaust ventilation controls. Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit. Where necessary, seek additional occupational hygiene advice.

PERSONAL PROTECTIVE EQUIPMENT

When using this product refer to the label for details. In all other cases, use the following Personal Protective Equipment:

Protective measures: The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.

Respiratory protection: No personal respiratory protective equipment normally required. A particulate filter respirator may be necessary until effective technical measures are installed.

Hand protection: Chemical resistant gloves are not usually required. Select gloves based on the physical job requirements.

Eye protection: Eye protection is not usually required. Follow any site specific eye protection policies. Eye/face protection should be certified to EN 166.

Skin and body protection: No special protective equipment required. Select skin and body protection based on the physical job requirements.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light red to red liquid.
pH:	5–9 at 1% w/v
Oxidising Properties:	Not oxidising
Flash Point:	>96°C at 102.3 kPa Pensky-Martens c.c.
Explosive Properties:	Not explosive
Density:	1.066 g/cm ³ at 20°C
Surface Tension:	33.1 mN/m at 20°C
Dynamic Viscosity:	55.0–416 mPa.s at 20°C
Dynamic Viscosity:	46.4–369 mPa.s at 40°C

10. STABILITY AND REACTIVITY

Hazardous decomposition products: Combustion or thermal decomposition will evolve toxic and irritant vapours.

Hazardous reactions: None known. Hazardous polymerisation does not occur. Stable under normal conditions.

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11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity, LD₅₀: Female rat: >2,000 mg/kg

Acute Inhalation LC₅₀: Male and Female rat, >5.49 mg/l, 4h

Acute Dermal Toxicity LD₅₀: Male and female rat, >2,000 mg/kg

Skin Irritation, Rabbit: Non irritant.

Eye Irritation, Rabbit: Non irritant.

Sensitisation, Guinea Pig: Not a skin sensitiser in animal tests.

LONG-TERM TOXICITY: Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.

12. ECOLOGICAL INFORMATION

ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)

Bioaccumulation: Flutriafol has low potential for bioaccumulation, fludioxonil does not bioaccumulate.

Stability in water: Fludioxonil is stable in water, flutriafol is persistent in water.

Stability in soil: Fludioxonil is not persistent in soil, flutriafol is persistent in soil.

Mobility: Flutriafol has medium mobility in soil, fludioxonil has low to very high mobility in soil.

ECOTOXICITY EFFECTS

Toxicity to Fish: LC₅₀ *Oncorhynchus mykiss* (rainbow trout), 13 mg/l, 96 h

Toxicity to Aquatic Invertebrates: EC₅₀ *Daphnia magna* (water flea), 25 mg/l, 48 h

Toxicity to Algae: EbC₅₀ *Pseudokirchneriella subcapitata* (green algae), 7 mg/l, 72 h

Toxicity to Algae: ErC₅₀ *Pseudokirchneriella subcapitata* (green algae), 11 mg/l, 72 h

13. DISPOSAL CONSIDERATIONS

Product: Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging: Empty remaining contents. Triple rinse containers. Empty containers should be taken for local recycling or waste disposal. Do not re-use empty containers.

14. TRANSPORT INFORMATION

RAIL/ROAD/SEA/AIR (RID/ADR/IMDG/IATA)

Class	UN Number	Packaging Group
9	3082	III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (FLUDIOXONIL)

Marine pollutant: Yes

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15. REGULATORY INFORMATION

Classifications/

Hazard symbols

N

DANGEROUS FOR THE ENVIRONMENT

Risk phrases (R)

51/53

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases (S)

2

Keep out of the reach of children.

13

Keep away from food, drink and animal feeding stuffs.

20/21

When using do not eat, drink or smoke.

35

This material and its container must be disposed of in a safe way.

57

Use appropriate containment to avoid environmental contamination.

Special label

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

16. OTHER INFORMATION

Always read the label. Use pesticides safely.

Product approval number: MAPP 13017

Update edition (a) : Addition of sales codes to section 1.

Based on edition 12/10/05, version 1.

Text of R phrases mentioned in Section 2:

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R22 Harmful if swallowed.

R36 Irritating to eyes.

R41 Risk of serious damage to eyes.

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 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.