

BERET GOLD

PRODUCT USE

SUMMARY OF INFORMATION

FORMULATION & ACTIVE INGREDIENT: Flowable concentrate for seed treatment containing 25 g/l (2.43% w/w) fludioxonil.

MAPP NUMBER: 11635.

PACK SIZE:

10 litre LinkPak.

20 and 200 litre containers.

800 litre IBC container.

TARGETS:

Winter and Spring Wheat

BERET GOLD controls *Microdochium nivale*, *Fusarium culmorum* and *Septoria nodorum* resulting in reductions of seedling blight, stem-base browning, snow mould and *Septoria* seedling blight and controls seed-borne and soil-borne common bunt (*Tilletia caries*).

Winter and Spring Barley

BERET GOLD controls *Microdochium nivale* and *Fusarium culmorum* resulting in reductions of seedling blight, stem-base browning, snow mould. BERET GOLD controls covered smut (*Ustilago hordei*) and gives partial control of leaf stripe (*Drechslera graminea*). The control of leaf stripe may not be sufficient for crops grown to produce seed for certification.

Winter and Spring Oats

BERET GOLD controls *Microdochium nivale* and *Fusarium culmorum* resulting in reductions of seedling blight and stem-base browning. BERET GOLD controls *Pyrenophora* leaf spot (*Pyrenophora avenae*).

APPLICATION: BERET GOLD should be applied directly to the seed using conventional seed treatment equipment.

Continuous flow treaters should be calibrated using BERET GOLD before use.

Do not apply BERET GOLD to cracked, split or sprouted seed.

DOSE: 2 litres BERET GOLD per tonne of seed.

PRACTICAL NOTES: See Recommendations & Directions for use.

FOR USE ONLY AS: AN AGRICULTURAL SEED TREATMENT

SEED TREATMENT

COMPATIBILITY

The following tank mixes have been tested for physical compatibility with BERET GOLD at recommended rates of use and will mix in the sprayer tank. No tests have been undertaken on crop safety or product performance. Use is at the user's own risk. Syngenta Crop Protection will support the mixing of BERET GOLD with any of the products listed. For further information on compatibilities contact Syngenta Crop Protection on 0800 1696058.

INSECTICIDES

EVICT

NOTES

The user should ensure that all products to be tank mixed with BERET GOLD are approved for use on the crops which are to be sprayed. Always refer to other manufacturers product information when mixing to ensure correct product use.

Continuous flow treaters should be calibrated using BERET GOLD before use.

No addition of water is necessary.

Only one application per crop.

DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be carefully read in order to obtain safe and successful use of this product.

GENERAL INFORMATION

BERET GOLD is a flowable concentrate for seed treatment containing 25 g/l (2.43% w/w) fludioxonil for use on winter and spring crops of wheat, barley and oats.

Results from trials have shown BERET GOLD to be well tolerated over a wide range of sowing dates and conditions. However under adverse environmental or soil conditions, the germination capacity of seed may be reduced and therefore seed rates should be increased in accordance with good agricultural practice.

BERET GOLD is effective against benzimidazole resistant and sensitive forms of *Microdochium nivale*.

DISEASES CONTROLLED

Winter and Spring Wheat

BERET GOLD controls *Microdochium nivale*, *Fusarium culmorum* and *Septoria nodorum* resulting in reductions of seedling blight, stem-base browning, snow mould and *Septoria* seedling blight, and controls seed-borne and soil-borne common bunt (*Tilletia caries*).

Winter and Spring Barley

BERET GOLD controls *Microdochium nivale* and *Fusarium culmorum* resulting in reductions of seedling blight, stem-base browning and snow mould. BERET GOLD controls covered smut (*Ustilago hordei*) and gives partial control of leaf stripe (*Drechslera graminea*). The control of leaf stripe may not be sufficient.

S E E D T R E A T M E N T

Winter and Spring Oats

BERET GOLD controls *Microdochium nivale* and *Fusarium culmorum* resulting in reductions of seedling blight and stem-base browning. BERET GOLD controls *Pyrenophora* leaf spot (*Pyrenophora avenae*).

CROP SPECIFIC INFORMATION

Crops

BERET GOLD is recommended as a seed treatment for use on winter and spring crops of wheat, barley and oats.

Timing

Before drilling.

Rates of use

2.0 litres BERET GOLD per tonne of seed.

MIXING AND SPRAYING

BERET GOLD should be applied directly to the seed using conventional seed treatment equipment.

Continuous flow treaters should be calibrated using BERET GOLD before use.

Do not apply BERET GOLD to cracked, split or sprouted seed.

STORAGE AFTER TREATMENT

Ensure seed is of a satisfactory moisture content before storage. Keep in a dry place correctly labelled.

Seed bag labels are available from Syngenta Crop Protection UK Ltd.

DRILLING

Seed treated with BERET GOLD may affect the flow rate of seed through drills. It is therefore important to check the calibration of the drill with BERET GOLD treated seed before drilling commences.

SAFETY PRECAUTIONS

(a) Operator protection

- * Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:
 - * WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the product, treated seed or contaminated surfaces.
 - * However engineering controls may replace personal protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection.
- WASH HANDS AND EXPOSED SKIN before meals and after work.

(b) Environmental Protection

- * DO NOT CONTAMINATE SURFACE WATERS OR DITCHES WITH CHEMICAL OR USED CONTAINER.
- * TREATED SEED MUST NOT TO BE USED as food or feed.
- * DO NOT APPLY TREATED SEED FROM THE AIR.
- * DO NOT RE-USE SACKS OR CONTAINERS THAT HAVE CONTAINED TREATED SEED for food or feed.

SEED TREATMENT

* LABEL TREATED SEED with the appropriate precautions using printed sacks, labels or bag tags supplied.

(c) Storage and disposal

EMPTY CONTAINER COMPLETELY and dispose of safely.

KEEP IN ORIGINAL CONTAINER tightly closed in a safe place.

BERET GOLD

Flowable concentrate for seed treatment containing 25 g/l (2.43% w/w) fludioxonil

HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

Keep out of reach of children.

Keep away from food, drink and animal feeding stuffs.

When using do not eat, drink or smoke.

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

THE (COSHH) CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS MAY APPLY TO THE USE OF THIS PRODUCT AT WORK

COMPLIANCE WITH THE FOLLOWING CONDITIONS OF USE AND ALL PRECAUTIONS MARKED * IS A LEGAL REQUIREMENT

FOR USE ONLY AS AN AGRICULTURAL SEED TREATMENT

CROP	Maximum individual dose (litres/tonne)	Maximum number of treatments	Latest time of application
Winter and spring wheat, winter and spring barley, winter and spring oats	2	1 per batch	Before drilling

READ ALL OTHER SAFETY PRECAUTIONS AND DIRECTIONS BEFORE USE.

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

IDENTIFICATION OF THE SUBSTANCE OR PREPARATION

Tradename **BERET GOLD**
 Design Code **A82071**
 AGI Code **116282/16367/16373/16375/16377**

COMPANY / UNDERTAKING IDENTIFICATION

Company Syngenta Crop Protection UK Ltd
 Whittlesford, CAMBRIDGE, CB2 4QT
 Phone (01223) 833621
 Fax (01223) 493700
 Website www.syngenta-crop.co.uk

Emergency Phone **0044 (0)1484 538444 (24h)**

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERISTIC

Formulation type: Flowable concentrate for seed treatment
 Active ingredient(s): 2.5% w/v fludioxonil (pa ISO) CGA173506

HAZARDOUS COMPONENTS

CAS-NO.	HAZARDOUS INGREDIENTS	% W/W	HAZARD SYMBOLS	RISK PHRASES
119432-41-6	poly(oxy-1,2-ethanediy), alpha- sulpho-omega-[tris (1-phenylethyl) phenoxy]-, ammonium salt	1-8	Xi	36, 52/53
9038-95-3	oxirane, methyl-, polymer with oxirane, monobutyl ether	1-8	N, Xn	22, 36/38, 50

3. HAZARDS IDENTIFICATION

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

4. FIRST-AID MEASURES

FIRST-AID MEASURES

General: Remove the affected person from the danger zone to a well-ventilated room or to fresh air, and protect from undercooling. IN CASE OF SUSPECTED POISONING: Immediately call a physician.

Eye Contact: Rinse eyes with clean water for several minutes.

Ingestion: Repeatedly administer medicinal charcoal in a large quantity of water. NOTE: Never give anything by mouth to an unconscious person. Do not induce vomiting.

Skin Contact: Remove contaminated clothing and thoroughly wash the affected parts of the body with soap and water.

SEED TREATMENT

MEDICAL INSTRUCTIONS

Antidote: No specific antidote is known! Apply symptomatic therapy.

5. FIRE-FIGHTING MEASURES

Combustibility: Yes

Suitable Extinguishing Media: Dry chemical extinguisher, foam, carbon dioxide or waterspray (do not use direct jet of water).

Special Hazards during Fire Fighting: Combustion products are toxic and/or irritant.

Protective Equipment for Fire Fighting: Use self contained breathing apparatus. Wear protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Environmental Protection Measures following Accidents: Cover up product with absorptive material such as sand, soil, diatomaceous earth, etc. and dispose of in an incinerator approved for chemicals. Collect material in specially marked, tightly closing containers. Spilled product cannot be used further and must be disposed of. If safe disposal is not possible, contact the manufacturer, the dealer or the local representative. Do not contaminate waters and sewers.

7. HANDLING AND STORAGE

HANDLING INFORMATION

General: Avoid contact with skin, eyes and clothing. Avoid inhalation of fog and vapours. Do not eat, drink or smoke while working. In addition to the measures usually taken in chemical works like splashproof filling and measuring equipment (including vapour stripping), further personal protection measures may have to be implemented to avoid possible contact with the product.

Special Instructions for Storage: Store the product in closed original containers.

Storage Compatibility with other Products: Store separately from feed, food and stimulants.

Maximum Storage Temperature: 30 °C

Minimum Storage Temperature: 0 °C

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

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

In General: Change working clothes daily.

Breathing Protection: In case of heavy exposure, wear: Gas mask.

Eye Protection: Goggles.

Hand Protection: Chemical-resistant gloves.

Body Protection: Heavy duty cotton or synthetic fabric working clothes (e.g. overalls). Heavy-duty shoes or boots.

Precautionary measures after work: Wash thoroughly (shower, bathe, wash hair). Change

clothing. Thoroughly clean protective gear. Thoroughly clean contaminated equipment with soap or soda solution.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	liquid	
Colour:	light red to dark red	
Solidification Point:	< 0 °C	OECD 102
Boiling Point:	> 90 °C (1013.25 hPa)	OECD 103
Flash-Point:	not detected	EEC A 9
Oxidizing Properties:	not oxidizing	MANUAL UN 1995
Explosive Properties		EEC A 14
Assessment:	not explosive	
Shock Sensitivity:	not shock sensitive	
Density:	1.02–1.06 g/cm ³ (20 °C)	OECD 109
pH Value:	5–9 (1 %; in deionised water)	CIPAC MT 75.2
Surface Tension:	39.0 mN/m (1.0 g/l; Suspension in distilled water; 20 °C)	EEC A 5
Surface Tension:	34.9 mN/m (170.0 g/l; Suspension in distilled water; 20 °C)	EEC A 5
Surface Tension:	35.3 mN/m (as is; 20 °C)	EEC A 5
Miscibility with water:	miscible	
Dynamic Viscosity:	34.0 - 326 mPa.s (10 - 200 rps; 20 °C)	OECD 114
Dynamic Viscosity:	30.2 - 293 mPa.s (10 - 200 rps; 40 °C)	OECD 114

10. STABILITY AND REACTIVITY

Chemical Stability Assessment: Stable under standard conditions.

Thermal Sensitivity: Thermally not sensitive.

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity:	LD ₅₀ : > 3000 mg/kg (rat)	OECD 401
Acute Dermal Toxicity:	LD ₅₀ : > 4000 mg/kg (rat)	OECD 402
Acute Skin Irritation:	non irritant (rabbit; assessment according to 93/21/EEC)	OECD 404
Acute Eye Irritation:	non irritant (rabbit; assessment according to 93/21/EEC)	OECD 405
Skin Sensitisation:	not sensitising (guinea pig; assessment according to 93/21/EEC; Maximization test)	OECD 406

12. ECOLOGICAL INFORMATION

Acute Toxicity to Fish	LC ₅₀ : 24.9 mg/l (<i>Cyprinus carpio</i> (Common carp); 96 h)	OECD 203
	LC ₅₀ : 20 mg/l (<i>Oncorhynchus mykiss</i> (Rainbow trout); 96 h)	
Growth Inhibition, Algae	EC ₅₀ : ca 40 mg/l (<i>Scenedesmus subspicatus</i> (green algae); 72 h)	OECD 201
Toxicity to Aquatic Invertebrates	EC ₅₀ : 54 mg/l (<i>Daphnia magna</i> (water flea); 48 h)	OECD 202

SEED TREATMENT

13. DISPOSAL CONSIDERATIONS

Product Disposal: Pay attention to protective clothing and measures. Cover up product with absorptive material such as sand, soil, diatomaceous earth, etc. Collect material in specially marked, tightly closing containers. Spilled product cannot be used further and must be disposed of. If safe disposal is not possible, contact the manufacturer, the dealer or the local representative and dispose of in an incinerator approved for chemicals.

Container Disposal: Dispose of empty containers in an incinerator approved for chemicals. Damaged containers: Place original containers in specially marked larger ones. Check possibilities of recycling large empty containers, drums and barrels.

14. TRANSPORT INFORMATION

RAIL / ROAD (RID / ADR) Not classified as dangerous good

SEA (IMDG-CODE) Not classified as dangerous good

AIR (ICAO / IATA) Not classified as dangerous good

15. REGULATORY INFORMATION

Classifications/ Hazard symbols	–	–
Risk phrases (R)	52/53	Harmful 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.

16. OTHER INFORMATION

Always read the label. Use pesticides safely.

Product registration number: MAPP 11635.

This Safety Data Sheet is for a new formulation version of Beret Gold with significant revision to most sections. Based on SDS dated 12-JUN-2001 with DPD assessment. Revision date 01/05/2003.

The information contained herein is based on the present state of our knowledge as is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.

S E E D T R E A T M E N T

A 2.43% flowable concentrate formulation containing fludioxonil, an agricultural seed treatment for use in winter and spring cereal crops.
 Maximum application rate: 2.0 litres product/tonne seed (50 g a.s/tonne seed).
 Maximum no. of applications: One per batch

SECTION	PROFILE
<p>1. WILDLIFE</p> <p>MAMMALS AND BIRDS</p>	<p>BERET GOLD is not classified as "Harmful to game and wildlife".</p> <p>No risk management is necessary to protect wild mammals and birds. Fludioxinil is of low toxicity to mammals and birds. The risk to wild animals and birds grazing on treated areas is low, as is the risk due to exposure from other routes, e.g. consumption of earthworms or other vertebrates such as insects.</p>
<p>2. BEES</p>	<p>No risk management is necessary as risk of exposure to bees from seed treatment use is low.</p>
<p>3. NON TARGET INSECTS AND OTHER ARTHROPODS</p>	<p>No risk management necessary. BERET GOLD poses a low risk to a range of arthropod species commonly found in and around treated fields, including carabid and staphylinid beetles.</p>
<p>4. AQUATIC LIFE</p>	<p>BERET GOLD is classified as "Harmful to fish and other aquatic life".</p> <p>BERET GOLD is of high toxicity to fish and aquatic invertebrates. Care should be taken to ensure that surface waters or ditches are not contaminated with the product or with the used container.</p> <p>No risk management necessary. When used according to the label instructions, the risk to aquatic life is low.</p> <p>Not categorised under the LERAP scheme.</p>
<p>5. SOIL AND GROUNDWATER</p> <p>EARTHWORMS</p> <p>SOIL MICRO-ORGANISMS</p>	<p>BERET GOLD has moderate persistence in soil. Fludioxinil is strongly bound to the soil and is not considered to be mobile. Use of BERET GOLD according to the label instructions presents a low risk to groundwater.</p> <p>No risk management necessary. BERET GOLD is of low toxicity to earthworms. In practice the risk to earthworms is low.</p> <p>No risk management necessary. No effect on soil microbial processes were found and so the risk is considered to be low.</p>
<p>6. NON-TARGET PLANTS</p>	<p>BERET GOLD is applied as a seed treatment and so the impact on non-target plants is expected to be minimal.</p>

ALWAYS READ THE LABEL: USE PESTICIDES SAFELY

Care must be taken to minimise the risk of surface water contamination from farmyard and field sources.

S E E D T R E A T M E N T

For further information about the environmental profile of this product contact:

Company: Syngenta Crop Protection UK Ltd
Address: Whittlesford, Cambridge, CB2 4QT
Telephone: 01223 833621
Fax: 01223 493700
e-mail: customer.services@syngenta.com

This Environmental Information Sheet was prepared in accordance with CPA Guidance Notes Version 3.

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