

HERITAGE

Version 9

Revision Date 18.12.2006

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**PRODUCT INFORMATION**

Product name : HERITAGE

Design Code : A12704B

Use : Fungicide

Company : Syngenta Crop Protection AG
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**Dangerous for the environment****2. COMPOSITION/INFORMATION ON INGREDIENTS****Hazardous components**

Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-phrase(s)	Concentration
azoxystrobin	131860-33-8		T, N	R23 R50/53	50 % W/W
sulfuric acid, mono-C12-18-alkyl esters, sodium salts	68955-19-1		Xi	R36/38	1 - 5 % W/W
naphthalenesulfonic acid, sodium salt, polymer with formaldehyde	9008-63-3		Xi	R36/38	5 - 10 % W/W

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

3. HAZARDS IDENTIFICATION

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
May form flammable dust-air mixture.

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 center 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.

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- 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.
- 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
Alcohol-resistant foam
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** : Wear full protective clothing and 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.
Avoid dust formation.
- Environmental precautions** : Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up** : Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for

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disposal according to local regulations (see section 13).
Do not create a powder cloud by using a brush or compressed air.
Clean contaminated surface thoroughly.

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

7. HANDLING AND STORAGE**HANDLING**

Advice on safe handling : This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents. In general personnel handling this material and all conducting equipment should be electrically earthed or grounded. Bulk bags (FIBC) used to contain this material should be Type B, Type C or Type D. Type C bags must be electrically grounded or earthed before powder is charged to or discharged from the bag. If metal or fibre drums are used to contain this material, make certain the metal parts are bonded to the filling equipment and grounded. This material could become charged under certain conditions such as pneumatic conveying. 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 : 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 feedingstuffs.

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
azoxystrobin	2 mg/m ³	8 h TWA	SYNGENTA

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 dust is 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

- 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.
- 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

- Form** : granules
- Colour** : light brown
- pH** : 6.5 at 1 % w/v
- Dust explosion class** : Forms flammable dust clouds.
- Minimum ignition energy** : 3 - 10 mJ
- Oxidizing properties** : not oxidizing
- Explosive properties** : Not explosive
- Density** : 0.54 g/ml

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Solubility in other solvents : Miscible
in Water

10. STABILITY AND REACTIVITY

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

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

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50 male and female Rat, > 5,000 mg/kg

Acute inhalation toxicity : LC50 Rat, > 4.67 mg/l, 4 h

Acute dermal toxicity : LD50 male and female Rat, > 2,000 mg/kg

Skin irritation : Rabbit: Slightly Irritating

Eye irritation : Rabbit: Moderately Irritating

Sensitization : guinea pig: Not a skin sensitizer 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 : Azoxystrobin has medium potential for bioaccumulation.

Stability in water : Azoxystrobin is stable in water

Stability in soil : Azoxystrobin is not persistent in soil.

Mobility : Azoxystrobin has low to very high mobility in soil.

ECOTOXICITY EFFECTS

Toxicity to fish : LC50 Oncorhynchus mykiss (rainbow trout), 1.1 mg/l , 96 h

: LC50 Bluegill sunfish, 2.4 mg/l , 96 h

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- Toxicity to aquatic invertebrates** : EC50 Daphnia magna (Water flea), 1.8 µg/l , 48 h
- Toxicity to algae** : ErC50 Pseudokirchneriella subcapitata (green algae), 950 µg/l , 72 h
- : EbC50 Pseudokirchneriella subcapitata (green algae), 120 µg/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**Land transport***ADR/ RID:*

UN-No.: 3077
Class: 9
Danger Label Number : 9
Packaging group III
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(AZOXYSTROBIN)

Sea transport*IMDG:*

UN-No.: 3077
Class: 9
Danger Label Number : 9
Packaging group: III
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(AZOXYSTROBIN)

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Marine pollutant : Marine pollutant

Air transport*IATA-DGR*

UN-No.: 3077
Class: 9
Danger Label Number : 9
Packaging group: III
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(AZOXYSTROBIN)

15. REGULATORY INFORMATION**Labelling according to EC Directives**

Symbol(s)	: N	Dangerous for the environment
R-phrases(s)	: R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S 2 S13 S20/21 S35 S57	Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. This material and its container must be disposed of in a safe way. Use appropriate container to avoid environmental contamination.
Special labelling of certain preparations	: To avoid risks to man and the environment, comply with the instructions for use.	
Note	: The preparation is classified as dangerous in accordance with Directive 1999/45/EC.	

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16. OTHER INFORMATION**Further information**

Text of R phrases mentioned in Section 2:

R23	Toxic by inhalation.
R36/38	Irritating to eyes and skin.
R50/53	Very toxic 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.

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