

**HELIX EC460 4X5L BOT IE**Version 1 / EU
1020000090101/7
Revision Date: 21.02.2008
Print Date: 07.03.2008**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name HELIX EC460 4X5L BOT IE
Product code (UVP) 05988667
Usage Fungicide
Company Bayer CropScience AG
Alfred-Nobel-Straße 50
40789 Monheim
Germany

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Responsible Department Material and Transport Safety Management
+49(0)2173-38-3409/4566
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Emergency telephone number +49(0)2133-51-4233 (Sicherheitszentrale Dormagen, Bayer AG)

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

Harmful by inhalation and if swallowed.
Irritating to eyes and skin.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

Emulsifiable concentrate (EC)
Prothioconazole 160g/l, Spiroxamine 300 g/l

Hazardous components

Chemical Name	CAS-No. / EINECS-No.	Symbol(s)	R-phrase(s)	Concentration [%]
Prothioconazole	178928-70-6	N	R51/53	16,30
Spiroxamine	118134-30-8	Xn, N	R20/21/22, R38, R43, R50/53	30,50
Fatty acid dimethylamide		Xi	R38, R41	> 20,00

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

4. FIRST AID MEASURES**General advice**

Move out of dangerous area. 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

In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Ingestion

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

Notes to Physician

Treatment

Treat symptomatically.
In case of ingestion perform gastric lavage, then administer charcoal (carbo medicalis) and sodium sulfate.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray
Carbon dioxide (CO₂)
Foam
Sand

Specific hazards during fire fighting

Hydrogen cyanide (hydrocyanic acid)
Nitrogen oxides (NO_x)
Carbon monoxide (CO)

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.

Methods for Cleaning Up

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.

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

7. HANDLING AND STORAGE**Handling**

Advice on safe handling

Use only in area provided with appropriate exhaust ventilation.

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.

Store in original container.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

Temperature tolerance -10 °C to 40 °C

Suitable materials

Coextruded containers with an internal barrier layer made of ethylene vinyl alcohol copolymer (EVOH)

Coextruded containers with an internal barrier layer made of polyamide (PA).

** Containers of 20 l and above: HDPE (high density polyethylene). **

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

Components	CAS-No.	Control parameters	Update	Basis
Prothioconazole	178928-70-6	1,4 mg/m ³		OES BCS*
Spiroxamine	118134-30-8	0,57 mg/m ³		OES BCS*

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

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

Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A or equivalent. 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.

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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.
Eye protection	Wear goggles conforming to EN166 (Field of Use 5 or equivalent).
Skin and body protection	Wear standard coverall and type 6 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. If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.
Hygiene measures	Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands immediately after work, if necessary take a shower. 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	liquid, clear to slightly turbid
Colour	dark yellow
Odour	aromatic

Safety data

pH	6 - 8 at 1 %
Flash point	> 149 °C
Density	approx. 0,98 g/cm ³ at 20 °C
Water solubility	emulsifiable

10. STABILITY AND REACTIVITY

Hazardous Reactions	No hazardous reactions when stored and handled according to prescribed instructions. Stable under recommended storage conditions.
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11. TOXICOLOGICAL INFORMATION

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Acute Oral Toxicity	LD50 (rat) 500 - 1.000 mg/kg Test conducted with a similar formulation.
Acute Inhalation Toxicity	LC50 (rat) approx. 2,212 mg/l Exposure time: 4 h Test conducted with a similar formulation.
Acute Dermal Toxicity	LD50 (rat) > 4.000 mg/kg Test conducted with a similar formulation.
Skin Irritation	Irritating to skin. (rabbit) Test conducted with a similar formulation.
Eye Irritation	Irritating to eyes. (rabbit) Test conducted with a similar formulation.
Sensitization	Non-sensitizing. (rabbit) OECD Test Guideline 406, Magnusson & Kligman test Test conducted with a similar formulation.

12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to Fish	LC50 (Rainbow trout (<i>Oncorhynchus mykiss</i>)) 6,57 mg/l Exposure time: 96 h Test conducted with a similar formulation.
Toxicity to daphnia	EC50 (Water flea (<i>Daphnia magna</i>)) 6,3 mg/l Exposure time: 48 h Test conducted with a similar formulation.
Toxicity to algae	IC50 (<i>Pseudokirchneriella subcapitata</i>) 0,16 mg/l Growth rate Exposure time: 72 h Test conducted with a similar formulation.

13. DISPOSAL CONSIDERATIONS**Product**

In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

Waste key for the unused product

020108 agrochemical waste containing dangerous substances

14. TRANSPORT INFORMATION**ADR/RID/ADNR**

UN-Number	3082
Labels	9
Packaging group	III

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Hazard no.	90
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SPIROXAMINE SOLUTION)

IMDG

UN-Number	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. (SPIROXAMINE SOLUTION)

IATA

UN-Number	3082
Labels	9
Packaging group	III
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SPIROXAMINE 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:

- Prothioconazole
- Spiroxamine

Symbol(s)

Xn	Harmful
N	Dangerous for the environment

R-phrases)

R20/22	Harmful by inhalation and if swallowed.
R36/38	Irritating to eyes and skin.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases)

S35	This material and its container must be disposed of in a safe way.
S57	Use appropriate container to avoid environmental contamination.

Exceptional labelling

To avoid risks to man and the environment, comply with the instructions for use.
Contains spiroxamine. May produce an allergic reaction.

16. OTHER INFORMATION**Further information**



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Text of R phrases mentioned in Section 3:

R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitization by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53	Toxic 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 Regulation (EC) 1907/2006. 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 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.