

**REDIGO DETER**Version 5 / GB
1020000084301/8
Revision Date: 12.02.2010
Print Date: 12.02.2010**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name REDIGO DETER
Product code (UVP) 06277837
Usage Fungicide, seed treatment
Company Bayer CropScience Limited
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Cambridge
Cambridgeshire CB4 0WB
Great Britain

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

May cause sensitization by skin contact.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

Flowable concentrate for seed treatment (FS)
Clothianidin/Prothioconazole 250:50 g/l

Hazardous components

Chemical Name	CAS-No. / EC-No.	Symbol(s)	R-phrase(s)	Concentration [%]
Clothianidin	210880-92-5	N	R50/53	20.84
Prothioconazole	178928-70-6	N	R51/53	4.17
Polyarylphenylether sulfate, ammonium salt	119432-41-6	Xi	R36, R52/53	> 1.00 - < 20.00
Fatty alcohol ethoxylate	380223-00-7	Xn, N	R22, R41, R50	> 0.10 - < 0.25
Glycerine	56-81-5 200-289-5			> 1.00

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

4. FIRST AID MEASURES



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General advice

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

Inhalation

If symptoms persist, call a physician. Move to fresh air. Keep patient warm and at rest.

Skin contact

Wash off immediately with soap and plenty of water.

Eye contact

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Ingestion

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

Notes to physician

Treatment

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray
Carbon dioxide (CO₂)
Foam
Sand

Specific hazards during fire fighting

In the event of fire the following may be released:

Hydrogen chloride (HCl)
Hydrogen cyanide (hydrocyanic acid)
Carbon monoxide (CO)
nitrogen oxides (NO_x)
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 spillage enters drains leading to sewage works inform local water company immediately.
If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).

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Methods for cleaning up

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

Additional advice

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

7. HANDLING AND STORAGE**Handling**

Advice on safe handling

No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice.
Ensure adequate ventilation.

Advice on protection against fire and explosion

No special precautions required.

Storage

Requirements for storage areas and containers

Store in original container.
Store in a place accessible by authorized persons only.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep away from direct sunlight.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

Temperature tolerance	min.	max.
	-10 °C	40 °C

Suitable materials

HDPE (high density polyethylene)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004). Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials.

Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
Clothianidin	210880-92-5	2.8 mg/m ³ (TWA)		OES BCS*
Prothioconazole	178928-70-6	1.4 mg/m ³ (TWA)		OES BCS*
Glycerine (Mist.)	56-81-5	10 mg/m ³ (TWA)	2007	EH40 WEL

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

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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.
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. 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).

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	liquid, suspension
Colour	red
Odour	weak, characteristic

Safety data

pH	4.5 - 6.5 at 100 % (23 °C)
Flash point	> 100 °C No flash point - Determination conducted up to the boiling point.
Autoignition temperature	425 °C
Density	ca. 1.20 g/cm ³ at 20 °C
Explosivity	Not explosive

10. STABILITY AND REACTIVITY

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Conditions to avoid	Extremes of temperature and direct sunlight.
Hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions. Stable under recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	LD50 (rat) \geq 5,000 mg/kg
Acute dermal toxicity	LD50 (rat) $>$ 4,000 mg/kg
Skin irritation	No skin irritation (rabbit)
Eye irritation	No eye irritation (rabbit)
Sensitisation	Sensitising (guinea pig) OECD Test Guideline 406, Magnusson & Kligman test

12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish	LC50 (Rainbow trout (<i>Oncorhynchus mykiss</i>)) 1.83 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient prothioconazole.
Toxicity to fish	LC50 (Rainbow trout (<i>Oncorhynchus mykiss</i>)) $>$ 104.2 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient clothianidin.
Toxicity to daphnia	EC50 (Water flea (<i>Daphnia magna</i>)) 1.3 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient prothioconazole.
Toxicity to daphnia	LC50 (Water flea (<i>Daphnia magna</i>)) $>$ 119 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient clothianidin.
Toxicity to daphnia	EC50 (<i>Chironomus riparius</i> (non-biting midge)) 0.00106 mg/l Exposure time: 28 d The value mentioned relates to the active ingredient clothianidin.
Toxicity to algae	EC50 (<i>Pseudokirchneriella subcapitata</i>) 2.18 mg/l Growth rate; Exposure time: 72 h The value mentioned relates to the active ingredient prothioconazole.

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Toxicity to algae EC50 (Pseudokirchneriella subcapitata) > 120 mg/l
Growth rate; Exposure time: 72 h
The value mentioned relates to the active ingredient clothianidin.

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.

Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).

Contaminated packaging

Empty remaining contents.

Large containers (> 25 l or > 25 kg) should not be rinsed or re-used for any other purpose.

Return large containers to supplier.

Follow advice on product label and/or leaflet.

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
Hazard no.	90
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CLOTHIANIDIN SOLUTION)
Tunnel Code	E

This classification is in principle not valid for carriage by tank vessel on inland waterways.
Please refer to the manufacturer for further information.

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. (CLOTHIANIDIN SOLUTION)

IATA

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

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UN-Number	3082
Labels	9
Packaging group	III
Hazard no.	90
Emergency action code	3Z
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CLOTHIANIDIN SOLUTION)

15. REGULATORY INFORMATION

This product has been classified in accordance with The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002: CHIP 3 and any subsequent amendments.

Classification:

Labelling according to EC Directives

Hazardous components which must be listed on the label:

- Prothioconazole
- Clothianidin

Symbol(s)

Xi	Irritant
N	Dangerous for the environment

R-phrases(s)

R43	May cause sensitization by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.

CLASSIFICATION ACCORDING TO SPECIFIC UK REGULATIONS:

The labelling information below is that which has been approved under 'The Control of Pesticides Regulations 1986' and/or 'Part III of the Food and Environment Protection Act 1985' and/or 'Plant Protection Product Regulations 1999' 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)

Xi	Irritant
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R-phrases(s)

R43	May cause sensitization by skin contact.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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S-phrase(s)

S 2	Keep out of the reach of children.
S13	Keep away from food, drink and animal feedingstuffs.
S24	Avoid contact with skin.
S35	This material and its container must be disposed of in a safe way.
S37	Wear suitable 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 3

R22	Harmful if swallowed.
R36	Irritating to eyes.
R41	Risk of serious damage to eyes.
R50	Very toxic to aquatic organisms.
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.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The above information is intended to give general health and safety guidance on the storage and transport of the product.

It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with.

The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given.

The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate.

No liability will be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.

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