

NEMATHORIN 10 G

Version 5

Revision Date 05.10.2006

Print Date 08.11.2006

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

PRODUCT INFORMATION

Product name : NEMATHORIN 10 G
Design Code : A12842A
Use : Nematicide
Company : Syngenta Crop Protection AG
 Postfach
 CH-4002 Basel
 Switzerland
Telephone : +41 61 323 11 11
Telefax : +41 61 323 12 12
Emergency telephone number : +44 1484 538444



2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-phrase(s)	Concentration
fosthiazate	98886-44-3		T, N	R21 R23/25 R39 R41 R43 R50/53	10 % W/W

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

3. Hazards identification

Harmful if swallowed.
 May cause sensitization by skin contact.
 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 This product contains an anticholinesterase compound. Do not use if under medical advice not to work with such compounds.
 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.

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- Inhalation** : Remove to fresh air.
Keep patient warm and at rest.
If breathing is irregular or stopped, administer artificial respiration.
Call a physician or Poison Control Centre immediately.
- Inhalation** : Remove to fresh air.
Keep patient warm and at rest.
If breathing is irregular or stopped, administer artificial respiration.
Call a physician or Poison Control Centre immediately.
- Skin contact** : Take off contaminated clothing and shoes immediately.
Wash off immediately with soap and 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.
- Symptoms** : The symptoms are of cholinesterase inhibition
- Medical advice** : Call Syngenta at the emergency number shown in this document, a poison control center or doctor immediately for treatment advice.
Consider taking venous blood for determination of blood cholinesterase activity (use heparin tube)
Administer atropine sulfate, either by intramuscular or intravenously, dependant on severity of poisoning
Specific antidotes are oximes (e.g. Pralidoxime) or Toxogonin

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

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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 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. 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.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION**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 should be used.
Gloves should be certified to an appropriate standard.
Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure.
The breakthrough time of gloves varies according to the thickness, material and manufacturer.
Gloves should be changed when breakthrough is suspected.
Suitable material:
Nitrile rubber
- Eye protection** : Eye protection is not usually required.
Follow any site specific eye protection policies.
- Skin and body protection** : Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material.
Wash with soap and water after removing protective clothing.
Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.)
Wear as appropriate:
Dust impervious protective suit

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form** : granules
- Colour** : light yellowish to light brownish
- Odour** : characteristic

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pH	:	5.3 at 1 % w/v
Dust explosion class	:	Forms flammable dust clouds.
Oxidizing properties	:	not oxidizing
Explosive properties	:	Not explosive
Density	:	1.13 g/ml at 20 °C
Bulk density	:	0.435 kg/dm ³
Solubility in other solvents	:	dispersible 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 Rat, 230 - 440 mg/kg
Acute dermal toxicity	:	LD50 Rat, > 2,000 mg/kg
Long term toxicity	:	A study in animals has shown that breast milk can contain fosthiazate. No adverse effects in humans are expected at levels below the occupational exposure limit and when the product is handled and used according to the label.

12. ECOLOGICAL INFORMATION**ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)**

Biodegradability	:	No information available.
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ECOTOXICITY EFFECTS

Toxicity to fish	:	LC50 Oncorhynchus mykiss (rainbow trout), 114 mg/l , 96 h
Toxicity to aquatic invertebrates	:	EC50 Daphnia magna (Water flea), 1.6 - 3.2 mg/l , 48 h

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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.
(FOSTHIAZATE)

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.
(FOSTHIAZATE)

Marine pollutant : Marine pollutant

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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.
 (FOSTHIAZATE)

15. REGULATORY INFORMATION

Labelling according to EC Directives

Hazardous components which must be listed on the label:

- fosthiazate

Symbol(s)	: Xn N	Harmful Dangerous for the environment
R-phrase(s)	: R22 R43 R51/53	Harmful if swallowed. May cause sensitization by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S24 S35 S37 S46 S57	Avoid contact with skin. This material and its container must be disposed of in a safe way. Wear suitable gloves. If swallowed, seek medical advice immediately and show this container or label. 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:

R21	Harmful in contact with skin.
R23/25	Toxic by inhalation and if swallowed.
R39	Danger of very serious irreversible effects.
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.

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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