

**OPTION®**

Version 2.2

Revision Date 17.03.2009

Ref. 130000013486

This SDS adheres to the standards and regulatory requirements of the Republic of Ireland and may not meet the regulatory requirements of other countries.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product information**

Product name : OPTION®

Synonyms : B10923139
: DPX-T3217 60WG

Use of the Substance/Preparation : Fungicide

Company : Du Pont (UK) Limited
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Stevenage, Herts. SG1 4QN
United Kingdom

Telephone : +44-1438-734.000

Emergency telephone : +44-(0)8456-006.640

E-mail address : sds_support@che.dupont.com

2. HAZARDS IDENTIFICATION

Harmful if swallowed.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	EC-No.	Classification	Concentration [%]
Cymoxanil	57966-95-7	261-043-0	Xn; R22 R43 N; R50 -R53	60
Poly(Dimethylnaphthalenesulfonic Acid/Formaldehyde/Methylnaphthalenesulfonic Acid) Sodium Salt	68425-94-5		Xi; R36/38	>= 1 - < 5
Sodium Phosphate (NaH ₂ PO ₄)	7558-80-7	231-449-2	Xi; R36/37/38	>= 1 - < 5
Fumaric Acid	110-17-8	203-743-0	Xi; R36	>= 1 - < 5

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

4. FIRST AID MEASURES

General advice : Never give anything by mouth to an unconscious person. For specialist advice physicians should contact the National Poisons Information Service, Beaumont

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	Hospital, Dublin. Tel: 01-8379964/8379966.
Inhalation	: Move to fresh air. Oxygen or artificial respiration if needed. Call a physician immediately.
Skin contact	: Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. In the case of skin irritation or allergic reactions see a physician. Wash contaminated clothing before re-use.
Eye contact	: Hold eye open and rinse slowly and gently with water for 15-20 minutes. If eye irritation persists, consult a specialist.
Ingestion	: Obtain medical attention. Do not induce vomiting without medical advice. If victim is conscious: Rinse mouth with water. Drink 1 or 2 glasses of water.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Water spray, Dry chemical, Foam, Carbon dioxide (CO ₂),
Extinguishing media which shall not be used for safety reasons	: High volume water jet, (contamination risk),
Specific hazards during fire fighting	: Hazardous decomposition products formed under fire conditions. Carbon dioxide (CO ₂) nitrogen oxides
Special protective equipment for fire-fighters	: In the event of fire, wear self-contained breathing apparatus.
Further information	: Prevent fire extinguishing water from contaminating surface water or the ground water system. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers / tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	: Avoid breathing dust. Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	: Use appropriate container to avoid environmental contamination. Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods for cleaning up	: Clean-up methods - small spillage Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean-up methods - large spillage Contain spillage, pick up with an electrically

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protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

Additional advice : Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

7. HANDLING AND STORAGE**Handling**

Advice on safe handling : Use only clean equipment. Do not breathe dust or spray mist. Provide appropriate exhaust ventilation at places where dust is formed. Wear personal protective equipment. For personal protection see section 8.

Advice on protection against fire and explosion : During processing, dust may form explosive mixture in air. Keep away from heat and sources of ignition.

Storage

Requirements for storage areas and containers : Store in original container. Keep in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep out of reach of children. Keep away from food, drink and animal feeding stuffs.

Advice on common storage : No special restrictions on storage with other products. Keep away from: Do not store near acids.

Other data : No decomposition if stored and applied as directed.

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

Components	CAS-No.	Type Form of exposure	Control parameters	Update	Basis
Sucrose	57-50-1	TWA	10 mg/m ³	2002	ELV (IE)
		STEL	20 mg/m ³	2002	ELV (IE)
Sodium Lignosulfonate	8061-51-6				
Fumed silica, crystalline-free	112945-52-5	TWA Total inhalable dust.	6 mg/m ³	2007	ELV (IE)
		TWA Respirable dust.	2,4 mg/m ³	2007	ELV (IE)

Engineering measures

Ensure adequate ventilation, especially in confined areas. Provide for appropriate exhaust ventilation and dust

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collection at machinery.

Personal protective equipment

- Respiratory protection : Manufacturing and processing work: Half mask with a particle filter FFP2 (EN149)
- Respiratory protection : Field and greenhouse application: Half mask with a particle filter P2 (EN 143).
- Hand protection : Material: Nitrile rubber
Glove thickness: 0,4 - 0,7 mm
Wearing time: 480 min
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time., The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Safety glasses with side-shields conforming to EN166
- Skin and body protection : Manufacturing and processing work: Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034)

Field and greenhouse application: Full protective clothing Type 3 (EN 14605)
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs. For environmental protection remove and wash all contaminated protective equipment before re-use. Dispose of rinse water in accordance with local and national regulations.
- Protective measures : All chemical protective clothing should be visually inspected prior to use. Clothing and gloves should be replaced in case of chemical or physical damage or if contaminated.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form : granules,
- Colour : light brown,
- Odour : musty, sweet,
- pH : 4,2 at 10 g/l (25 °C), Method: CIPAC MT 75
- Melting point/range : Not available for this mixture.
- Flash point : not applicable
- Flammability (solid, gas) : Does not sustain combustion.
- Thermal decomposition : Decomposition under influence of moisture is highly accelerated by heating.,

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Autoignition temperature	: , not auto-flammable
Oxidizing properties	: The product is not oxidising.
Explosive properties	: Not explosive
Bulk density	: 600 kg/m ³ , loose
Bulk density	: 650 kg/m ³ , packed
Solubility/qualitative	: dispersible

10. STABILITY AND REACTIVITY

Conditions to avoid	: Decomposes slowly on exposure to water. Under severe dusting conditions, this material may form explosive mixtures in air.
Materials to avoid	: Incompatible with acids.
Hazardous decomposition products	: Hydrogen cyanide (hydrocyanic acid)
Hazardous reactions	: No dangerous reaction known under conditions of normal use. No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50/ rat: 433 mg/kg Method: OECD Test Guideline 401 (Data on the product itself) Information source: Internal study report
Acute inhalation toxicity	: LC50/ 4 h / rat : > 5,0 mg/l Method: OECD Test Guideline 403 (Data on the product itself) Information source: Internal study report
Acute dermal toxicity	: LD50/ rat > 5 000 mg/kg Method: OECD Test Guideline 402 (Data on the product itself) Information source: Internal study report
Skin irritation	: rabbit Result: No skin irritation Method: OECD Test Guideline 404 (Data on the product itself) Information source: Internal study report
Eye irritation	: rabbit Result: No eye irritation Method: OECD Test Guideline 405 (Data on the product itself) Information source: Internal study report
Sensitisation	: Modified Buehler Test guinea pig Result: Animal test did not cause sensitization by skin contact. Method: OECD Test Guideline 406 (Data on the product itself)

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Information source: Internal study report

Mutagenicity assessment

- Cymoxanil : Did not show mutagenic effects in animal experiments., Evidence suggests this substance does not cause genetic damage in cultured mammalian cells., Evidence suggests this substance does not cause genetic damage in cultured bacterial cells.

Carcinogenicity assessment

- Cymoxanil : Did not show carcinogenic effects in animal experiments.

Toxicity to reproduction assessment

- Cymoxanil : Animal testing did not show any effects on fertility.

12. ECOLOGICAL INFORMATION**Elimination information (persistence and degradability)**

Biodegradability : Not readily biodegradable. Estimation based on data obtained on active ingredient.

Bioaccumulation : This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Toxicity to fish

- Cymoxanil : LC50 / 96 h/ *Lepomis macrochirus* (Bluegill sunfish) : 29 mg/l

Toxicity to algae

- Cymoxanil : / EbC50/ 72 h/ *Pseudokirchneriella subcapitata* (green algae): < 0,662 mg/l

Aquatic toxicity

- Cymoxanil : static test / EC50/ 48 h/ *Daphnia magna* (Water flea): 27 mg/l
Method:

Chronic toxicity to fish

- Cymoxanil : / NOEC/ 21 d/ *Oncorhynchus mykiss* (rainbow trout): 0,22 mg/l

Chronic toxicity to aquat. Invertebrates

- Cymoxanil : Immobilization / NOEC/ 21 d/ *Daphnia magna* (Water flea): 0,067 mg/l

Further information on ecology

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Additional ecological information : No data is available on the product itself.

13. DISPOSAL CONSIDERATIONS

Product : In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging : Do not re-use empty containers.

14. TRANSPORT INFORMATION**ADR**

Class: 9
 Packaging group: III
 Classification Code: M7
 HI No.: 90
 UN-Number: 3077
 Labelling No.: 9
 Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Cymoxanil)

Further information : Not classified as dangerous in the meaning of sea and air transport regulations., Optional classification as per IMDG Special Provision 909., Optional classification as per IATA Special Provision A97.

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

Symbol(s) : Xn Harmful
 N Dangerous for the environment

Hazardous components: Cymoxanil

R-phrase(s) : R22 Harmful if swallowed.
 R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s) : S 2 Keep out of reach of children.
 S13 Keep away from food, drink and animal feeding stuffs.
 S20/21 When using do not eat, drink or smoke.
 S23 Do not breathe spray.
 S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 S35 This material and its container must be disposed of in a safe way.
 S46 If swallowed, seek medical advice immediately and show this container or label.
 S57 Use appropriate container to avoid environmental

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contamination.

Special labelling of certain preparations : To avoid risks to man and the environment, comply with the instructions for use.

Sensitising components contains:
Cymoxanil
May produce an allergic reaction.

16. OTHER INFORMATION**Text of R-phrases mentioned in Section 3**

R22	Harmful if swallowed.
R36	Irritating to eyes.
R36/37/38	Irritating to eyes, respiratory system and skin.
R36/38	Irritating to eyes and skin.
R43	May cause sensitization by skin contact.
R50	Very toxic to aquatic organisms.
R53	May cause long-term adverse effects in the aquatic environment.

Further information

Take notice of the directions of use on the label.

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Significant change from previous version is denoted with a double bar.

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