

**VYDATE® 100 GR**

Version 4.2

Revision Date 15.11.2010

Ref.130000000049

This SDS adheres to the standards and regulatory requirements of the European Union and may not meet the regulatory requirements in other countries.

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

Product name : VYDATE® 100 GR

Synonyms : B10049174
: DPX-D1410 10G

Use of the Substance/Mixture : Insecticide, Nematicide

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2. HAZARDS IDENTIFICATION

Toxic by inhalation and if swallowed.
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.	Registration number	Classification	Concentration [%]
Oxamyl	23135-22-0	245-445-3		T+; R26/28 Xn; R21 N; R51 -R53	10
Cyclohexanone	108-94-1	203-631-1		R10 Xn; R20	5 - < 10
Orthophosphoric acid	7664-38-2	231-633-2		C; R34	1 - < 5

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

4. FIRST AID MEASURES

General advice : Contains an N-methyl carbamate that inhibits cholinesterase.



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- Never give anything by mouth to an unconscious person.
- Inhalation : Move to fresh air. Call a physician or poison control centre immediately. Artificial respiration and/or oxygen may be necessary.
- 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 : Call a physician or poison control centre immediately. Do not induce vomiting without medical advice. If victim is conscious: Rinse mouth with water. Drink 1 or 2 glasses of water.

Notes to physician

- Risks : This product is a cholinesterase inhibitor carbamate.
- Symptoms : Blurred vision, Daze, Breathing difficulties, Weakness, Headache, constriction of pupils, sweating, slow pulse, muscle twitching
- Treatment : Administer atropine sulphate as an antidote until complete atropinisation (1.2-2.0 mg i.v. every 10-30 minutes). Morphine, 2-PAM and oxime therapy are contra-indicated.
- Allow no further exposure to any cholinesterase inhibitor until full recovery is assured.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray, Foam, Dry chemical, Carbon dioxide (CO₂),
- 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 (CO₂) nitrogen oxides (NO_x)
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
- 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.



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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Evacuate personnel to safe areas. Avoid breathing dust. Avoid dust formation. Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Prevent further leakage or spillage if safe to do so. Use appropriate container to avoid environmental contamination. 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 spill area is porous, the contaminated material must be collected for subsequent treatment or disposal. 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 Avoid dust formation. 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).
- 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 in an area equipped with a safety shower.
- Use only clean equipment. Do not breathe dust or spray mist. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment. Wear personal protective equipment. For personal protection see section 8.
- Advice on protection against fire and explosion : Keep away from heat and sources of ignition. Avoid dust formation in confined areas. During processing, dust may form explosive mixture in air.

Storage

- Requirements for storage areas and containers : Keep locked up or in an area accessible only to qualified or authorised persons. Store in original container. 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.
- Advice on common storage : No special restrictions on storage with other products.
- Other data : Stable under recommended storage conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

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Components	CAS-No.	Type Form of exposure	Control parameters	Update	Basis	
Quartz	14808-60-7	TWA	0,4 mg/m ³	1995	ZA REL	
		Respirable dust.				
Cyclohexanone	108-94-1	SKIN_DES		02 2006	EU ELV	
		Can be absorbed through skin.				
		TWA	40,8 mg/m ³ 10 ppm	12 2009	EU ELV	
		Indicative				
		STEL	81,6 mg/m ³ 20 ppm	12 2009	EU ELV	
		Indicative				
		TWA	100 mg/m ³ 25 ppm	1995	ZA REL	
		STEL	400 mg/m ³ 100 ppm	1995	ZA REL	
Orthophosphoric acid	7664-38-2	TWA	1 mg/m ³	12 2009	EU ELV	
		Indicative				
		STEL	2 mg/m ³	12 2009	EU ELV	
		Indicative				
		TWA	1 mg/m ³	1995	ZA REL	
		STEL	3 mg/m ³	1995	ZA REL	

Engineering measures

Ensure adequate ventilation, especially in confined areas. Use only in area provided with appropriate exhaust ventilation. Provide for appropriate exhaust ventilation and dust collection at machinery.

Personal protective equipment

Respiratory protection : Manufacturing and processing work: Half mask with a particle filter FFP3 (EN149)

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|--------------------------|---|---|
| Respiratory protection | : | Mixer and loaders must wear: Half mask with vapour filter A3 (EN 141) |
| Respiratory protection | : | Spray application - outdoor: Half mask with combination filter A2/P3 (EN 141) |
| Respiratory protection | : | Spray application - indoor: Half mask with combination filter A2/P3 (EN 141) |
| Hand protection | : | <p>Material: Nitrile rubber
 Glove thickness: 0,4 - 0,7 mm
 Glove length
 : Gauntlets
 Protection index: Class 6
 Wearing time: > 480 min</p> <p>The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it., 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., Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough., Before removing gloves clean them with soap and water.</p> |
| Eye protection | : | Safety glasses with side-shields conforming to EN166 |
| Skin and body protection | : | <p>Manufacturing and processing work: Full protective clothing Type 5 (EN 13982-2)</p> <p>Mixer and loaders must wear: Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034) Rubber apron Rubber or plastic boots</p> |
| Hygiene measures | : | <p>Spray application - outdoor: Full protective clothing Type 4 (EN 14605) Rubber or plastic boots</p> <p>Spray application - indoor: Full protective clothing Type 4 (EN 14605) Rubber or plastic boots</p> <p>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. Avoid contact with skin, eyes and clothing. Avoid breathing dust or solution spray. 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 feedingstuffs. For environmental protection remove and wash all contaminated protective equipment before re-use. Dispose of rinse water in accordance with local and national regulations.</p> |
| Protective measures | : | The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. 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,

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Colour	:	blue green,
Odour	:	slight, solvent-like,
pH	:	6,8 at 100 g/l (24 °C)
Melting point/range	:	Not available for this mixture.
Flash point	:	not applicable
Flammability (solid, gas)	:	Does not sustain combustion.
Oxidizing properties	:	The product is not oxidizing.
Explosive properties	:	Not explosive
Bulk density	:	720 kg/m ³
Water solubility	:	229 g/l at 25 °C

10. STABILITY AND REACTIVITY

Conditions to avoid	:	Heating can release hazardous gases. Under severe dusting conditions, this material may form explosive mixtures in air.
Materials to avoid	:	No materials to be especially mentioned.
Hazardous reactions	:	No dangerous reaction known under conditions of normal use. Burning produces noxious and toxic fumes. No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	LD50/ ratmale: 43 mg/kgMethod: OECD Test Guideline 401 (Data on the product itself) Information source: Internal study report LD50/ ratfemale: 34 mg/kgMethod: OECD Test Guideline 401 (Data on the product itself) Information source: Internal study report
Acute inhalation toxicity	:	LC50/ 4 h / rat : 0,68 mg/l Method: OECD Test Guideline 403 (Data on the product itself) Information source: Internal study report
Acute dermal toxicity	:	LD50/ rabbit > 5 000 mg/kg Method: OECD Test Guideline 402 (Data on the product itself) Information source: Internal study report



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Skin irritation	: rabbit Result: No skin irritation Method: OECD Test Guideline 404 (Data on the product itself)
Eye irritation	: rabbit Result: No eye irritation Method: OECD Test Guideline 405 (Data on the product itself)
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)
Mutagenicity assessment Oxamyl	: Did not cause genetic damage in animals., Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Carcinogenicity assessment • Oxamyl	: Did not show carcinogenic effects in animal experiments.
Toxicity to reproduction assessment • Oxamyl	: Animal testing showed effects on reproduction at levels equal to or above those causing parental toxicity.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability	: Not readily biodegradable. Estimation based on data obtained on active ingredient.
Bioaccumulation	: This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Ecotoxicity effects

Toxicity to fish	: static test LC50/ 96 h/ <i>Lepomis macrochirus</i> (Bluegill sunfish) :: 47 mg/l Method: OECD Test Guideline 203 (Data on the product itself) Information source: Internal study report
Toxicity to algae	: / EbC50/ 72 h/ <i>Pseudokirchneriella subcapitata</i> (green algae): 8,6 mg/l Method: OECD Test Guideline 201 (Data on the product itself) Information source: Internal study report
Toxicity to daphnia	: / EC50/ 48 h/ <i>Daphnia magna</i> (Water flea): 3,3 mg/l Method: OECD Test Guideline 202 (Data on the product itself) Information source: Internal study report

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.
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Contaminated packaging : Do not re-use empty containers.

14. TRANSPORT INFORMATION**ADR**

Class: 6.1
 Packaging group: II
 Classification Code: T7
 HI No.: 60
 UN number: 2757
 Labelling No.: 6.1
 Proper shipping name: Carbamate pesticide, solid, toxic (Oxamyl)

IATA_C

Class: 6.1
 Packaging group: II
 UN number: 2757
 Labelling No.: 6.1
 Proper shipping name: Carbamate pesticide, solid, toxic (Oxamyl)

IMDG

Class: 6.1
 Packaging group: II
 UN number: 2757
 Labelling No.: 6.1
 Proper shipping name: Carbamate pesticide, solid, toxic (Oxamyl)

Marine pollutant: Marine pollutant

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

Symbol(s)	: T N	Toxic Dangerous for the environment
Hazardous components:	Oxamyl	
R-phrases(s)	: R23/25 R51/53	Toxic by inhalation and if swallowed. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases(s)	: S 2 S13 S20/21 S23 S35 S36/37/39 S38	Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. Do not breathe spray. This material and its container must be disposed of in a safe way. Wear suitable protective clothing, gloves and eye/face protection. In case of insufficient ventilation, wear suitable respiratory equipment.



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S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S57	Use appropriate container to avoid environmental contamination.
SP 1	Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).
SPo 2	Wash all protective clothing after use.
SPe 3	To protect aquatic organisms respect an unsprayed buffer zone of 20 m to surface water bodies.

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

Further information : Restricted to professional users.

16. OTHER INFORMATION

Text of R-phrases mentioned in Section 3

R10	Flammable.
R20	Harmful by inhalation.
R21	Harmful in contact with skin.
R26/28	Also very toxic by inhalation and if swallowed.
R34	Causes burns.
R51	Toxic to aquatic organisms.
R53	May cause long-term adverse effects in the aquatic environment.

Further information

Before use read DuPont's safety 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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