

**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019  
Revision Date : 10/08/2018

Ref. 130000000046

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

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : DuPont™ Vydate® L Insecticide/Nematicide  
Tradename/Synonym : DPX-D1410 24L  
Vydate 24L  
B10049186

Product Use : Insecticide, Nematicide

Restrictions on use : Do not use product for anything outside of the above specified uses.

Manufacturer/Supplier : DuPont  
974 Centre Road  
Wilmington, DE 19805, USA

Product Information : 1-800-441-7515 (outside the U.S. 1-302-774-1000)  
Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)  
Transport Emergency : +1-800-424-9300 (outside the U.S. +1-703-527-3887)

**SECTION 2. HAZARDS IDENTIFICATION****Product hazard category**

Flammable liquids	Category 3
Acute toxicity (Oral)	Category 2
Acute toxicity (Inhalation)	Category 2
Specific target organ toxicity - single exposure	Category 1
Specific target organ toxicity - single exposure	Category 3

**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019  
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Ref. 130000000046

**Label content**

Pictogram :



Signal word : Danger

Hazardous warnings : Flammable liquid and vapour.  
Fatal if swallowed or if inhaled.  
May cause drowsiness or dizziness.  
Causes damage to organs. (Central nervous system, Eyes)

**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019  
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Ref. 130000000046

**Hazardous prevention measures** : Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ ventilating/ lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
Wash skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/ eye protection/ face protection.  
Wear respiratory protection.  
IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.  
IF exposed: Call a POISON CENTER or doctor/ physician.  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

Information presented in Section 2 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS-No.	Concentration
Oxamyl	23135-22-0	24 %
Methanol	67-56-1	35 - 45 %

**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019  
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Ref. 130000000046

Other Ingredients		31 - 41 %
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The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

**SECTION 4. FIRST AID MEASURES**

- General advice** : ATROPINE IS AN ANTIDOTE - SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONINGS.  
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.  
For medical emergencies involving this product, call toll free 1-800-441-3637.  
See Label for Additional Precautions and Directions for Use.  
Information presented in Section 4 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.
- Inhalation** : Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
- Skin contact** : Take off all contaminated clothing immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- Eye contact** : Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- Ingestion** : If swallowed, call a poison control centre or doctor immediately. If swallowed, drink 1 or 2 glasses of water and try once or twice to induce vomiting by touching the back of throat with finger. Induce vomiting if person is conscious. Do not give anything by mouth to an unconscious person.

**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019 Ref. 130000000046  
Revision Date : 10/08/2018

Most important symptoms/effects, acute and delayed : Poisoning produces effects associated with anticholinesterase activity which may include:  
Weakness Blurred vision Breathing difficulties Nausea Headache Abdominal pain discomfort in the chest constriction of pupils slow pulse sweating muscle twitching

Protection of first-aiders : No applicable data available.  
Notes to physician : This product is an acetyl cholinesterase inhibiting carbamate insecticide. Morphine therapy is contra-indicated. Administer atropine sulphate as an antidote until complete atropinisation (1.2-2.0 mg i.v. every 10-30 minutes). Artificial respiration and/or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until full recovery is assured.

**SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Water spray, Dry chemical, Foam, Carbon dioxide (CO2)

Unsuitable extinguishing media : High volume water jet, (contamination risk)

Specific hazards : Vapours may form explosive mixtures with air. Heating can release vapours which can be ignited.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Wear full protective equipment.

Further information : Evacuate personnel and keep upwind of fire. Shut off source of fuel, if possible and without risk. If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Burning chemicals may produce by-products more toxic than the original material. Cool tank/container with water spray. Control Runoff.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019  
Revision Date : 10/08/2018

Ref. 130000000046

- Safeguards (Personnel) : Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus. Use personal protective equipment.
- Environmental precautions : Prevent material from entering sewers, waterways, or low areas.
- Spill Cleanup : Soak up with sawdust, sand, oil dry or other absorbent material. Shovel or sweep up. Never return to container for reuse. Scoop into bags or boxes with plastic or aluminium shovel. Neutralize with solid sodium hydroxide at a rate of 3 lbs. per gallon spilled.
- Accidental Release Measures : Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

**SECTION 7. HANDLING AND STORAGE**

- Handling (Personnel) : Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Handling (Physical Aspects) : Flammable. Keep away from heat and sources of ignition. Use only in well-ventilated areas.
- Dust explosion class : No applicable data available.
- Storage : Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in original container. Not for use or storage in or around the home. Keep out of the reach of children.
- Storage period : No applicable data available.
- Storage temperature : > 0 °C (> 32 °F)

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

- Engineering controls : Use only with adequate ventilation. Refer to the product label for additional Engineering Controls. Information presented in Section 8 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable

**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019  
Revision Date : 10/08/2018

Ref. 130000000046

information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.

**Personal protective equipment**

Respiratory protection : Mixers, loaders, applicators and other handlers must wear: A respirator with an organic vapor-removing cartridge with a prefilter approved for pesticides (NIOSH approval number prefix TC-23C), or a canister approved for pesticides (NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter.

Hand protection : Additional protection: See skin and body protection

Eye protection : See skin and body protection

Skin and body protection : Mixers, loaders, applicators and other handlers must wear:  
Coveralls worn over long-sleeved shirt and long pants  
Chemical-resistant gloves  
Barrier laminate  
butyl-rubber  
Neoprene  
Polyvinylchloride  
Viton®  
Chemical resistant footwear plus socks  
Protective eyewear  
Chemical resistant headgear for overhead exposure  
Chemical-resistant apron when cleaning equipment, mixing or loading  
PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:  
Coveralls  
Chemical resistant gloves made of any waterproof material  
Shoes plus socks

Protective measures : Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Exposure Guidelines  
Exposure Limit Values

**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019  
Revision Date : 10/08/2018

Ref. 130000000046

Methanol			
Permissible exposure limit:	(OSHA)	200 ppm 260 mg/m <sup>3</sup>	8 hr. TWA
TLV	(ACGIH)	200 ppm	TWA
TLV	(ACGIH)		Skin
TLV	(ACGIH)	250 ppm	STEL
AEL *	(DuPont)	200 ppm	8 & 12 hr. TWA, Skin

Oxamyl			
AEL *	(DuPont)	0.05 mg/m <sup>3</sup>	8 & 12 hr. TWA

## Biological Exposure Indices

Methanol			
BEI	(ACGIH)	15 mg/l	Methanol/Urine Sampling time: End of shift.

\* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

## Appearance

Physical state : liquid  
Form : liquid  
Color : green, or, blue

Odor : slight, sulphurous

Odor threshold : No applicable data available.

pH : 3.6 at 10 g/l 25 °C (77 °F)

Melting point/range : No applicable data available.

Boiling point/boiling range : No applicable data available.

Flash point : 23 °C  
closed cup

Evaporation rate : No applicable data available.



**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019 Ref. 130000000046  
Revision Date : 10/08/2018

Flammability (solid, gas) : not auto-flammable  
Upper explosion limit : No applicable data available.  
Lower explosion limit : No applicable data available.  
Vapour Pressure : No applicable data available.  
Vapour density : No applicable data available.  
Density : 0.97 - 0.98 g/cm<sup>3</sup>  
Specific gravity (Relative density) : No applicable data available.  
Water solubility : soluble  
Solubility(ies) : No applicable data available.  
Partition coefficient: n-octanol/water : No applicable data available.  
Auto-ignition temperature : Not available for this mixture.  
Decomposition temperature : No applicable data available.  
Viscosity, kinematic : No applicable data available.  
Viscosity, dynamic : 2 - 2.2 mPa.s at 25 °C (77 °F)  
Oxidizing Substance : The product is not oxidizing.

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No applicable data available.  
Chemical stability : Stable at normal temperatures and storage conditions.  
Possibility of hazardous reactions : Hazardous polymerization will not occur.  
Conditions to avoid : No applicable data available.  
Incompatible materials : Hydrolyses in presence of:  
Strong acids and strong bases  
Hazardous decomposition : Decomposition will not occur.

**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019  
Revision Date : 10/08/2018

Ref. 130000000046

products

**SECTION 11. TOXICOLOGICAL INFORMATION**

DuPont™ Vydate® L Insecticide/Nematicide

Inhalation 4 h LC50 : 0.3 mg/l , Rat

Dermal LD50 : &gt; 5,000 mg/kg , Rabbit

Oral LD50 : 9 mg/kg , female, Rat

Oral LD50 : 10 mg/kg , male, Rat

Skin irritation : No skin irritation, Rabbit

Eye irritation : Rabbit  
Minimal effects that do not meet the threshold for classification.

Sensitisation : Animal test did not cause sensitization by skin contact., Guinea pig

Further information : Information presented in this Section conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.

Oxamyl

Repeated dose toxicity : Ingestion  
Rat  
- 24 Months  
No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for classification., cholinesterase inhibition

Skin contact  
Rabbit  
- 21 dMethod: US EPA Test Guideline OPP 82-2  
No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for classification.

Carcinogenicity : Not classifiable as a human carcinogen.  
Animal testing did not show any carcinogenic effects.

**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019  
Revision Date : 10/08/2018

Ref. 130000000046

- Mutagenicity : Animal testing did not show any mutagenic effects.  
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
- Reproductive toxicity : No toxicity to reproduction  
Animal testing showed effects on reproduction at levels equal to or above those causing parental toxicity.  
No effects on or via lactation
- Teratogenicity : Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

## Methanol

- Carcinogenicity : Not classifiable as a human carcinogen.  
Overall weight of evidence indicates that the substance is not carcinogenic.
- Mutagenicity : Weight of evidence does not support classification as a germ cell mutagen.  
Animal testing did not show any mutagenic effects.  
Genetic damage in cultured mammalian cells was observed in some laboratory tests but not in others.  
Genetic damage in cultured bacterial cells was observed in some laboratory tests but not in others.
- Reproductive toxicity : No toxicity to reproduction  
Evidence suggests the substance is not a reproductive toxin in animals.
- Teratogenicity : Evidence suggests the substance is not a developmental toxin in animals.

## Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019  
Revision Date : 10/08/2018

Ref. 130000000046

**SECTION 12. ECOLOGICAL INFORMATION**

## Aquatic Toxicity

## DuPont™ Vydate® L Insecticide/Nematicide

96 h LC50 : Oncorhynchus mykiss (rainbow trout) 27 mg/l  
72 h ErC50 : Selenastrum capricornutum (green algae) 34 mg/l  
48 h EC50 : Daphnia magna (Water flea) 3 mg/l

## Oxamyl

29 d : NOEC Cyprinodon variegatus (sheepshead minnow) 0.356 mg/l  
OECD Test Guideline 210  
61 d : NOEC Oncorhynchus mykiss (rainbow trout) 0.77 mg/l  
28 d : NOEC Americamysis bahia (mysid shrimp) 0.0189 mg/l

## Environmental Fate

## Methanol

Bioaccumulation : Bioaccumulation is unlikely.

Additional ecological information : Environmental Hazards: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. See product label for additional application instructions relating to environmental precautions.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Waste disposal methods - Product : Do not contaminate water, food or feed by disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Waste disposal methods - Container : Container Refilling and Disposal:  
Refer to the product label for instructions.

**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019  
Revision Date : 10/08/2018

Ref. 130000000046

In the event of a major spill, fire or other emergency, call 1-800-441-3637 day or night.

Contaminated packaging : No applicable data available.

**SECTION 14. TRANSPORT INFORMATION**

DOT	UN number	: 2991
	Proper shipping name	: Carbamate pesticides, liquid, toxic, flammable (Methanol, Oxamyl)
	Class	: 6.1 (3)
	Packing group	: II
	Labelling No.	: 6.1 (3)
IATA_C	Reportable Quantity	: 100 lbs Oxamyl
	UN number	: 2991
	Proper shipping name	: Carbamate pesticide, liquid, toxic, flammable (Methanol, Oxamyl)
	Class	: 6.1 (3)
	Packing group	: II
IMDG	Labelling No.	: 6.1 (3)
	UN number	: 2991
	Proper shipping name	: CARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE (Methanol, Oxamyl)
	Class	: 6.1 (3)
	Packing group	: II
	Labelling No.	: 6.1 (3)
	Marine pollutant	: yes (Oxamyl)

**SECTION 15. REGULATORY INFORMATION**

Other regulations : This Safety Data Sheet is for a pesticide product registered by the US Environmental Protection Agency (USEPA) and various state regulatory agencies, and is therefore also subject to certain requirements under US and state pesticide laws, including the Federal Insecticide Fungicide and Rodenticide Act (FIFRA). These requirements differ from the classification criteria and hazard information required by OSHA for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is information determined by USEPA, and various states.

DANGER! POISON!

**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019  
Revision Date : 10/08/2018

Ref. 130000000046

Fatal if swallowed. May be fatal if inhaled. Avoid breathing spray mist. Causes moderate eye irritation. Avoid contact with skin, eyes and clothing. This product is toxic to: Aquatic organisms This product is extremely toxic to: Birds Mammals

SARA 311/312 Hazard classification : Flammable (gases, aerosols, liquids, or solids)  
Acute toxicity (any route of exposure)  
Specific target organ toxicity (single or repeated exposure)

SARA 313 Regulated Chemical(s) : Methanol

PA Right to Know Regulated Chemical(s) : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances):  
Methanol, Oxamyl, Phosphoric acid

CERCLA Reportable Quantity : Based on the percentage composition of this chemical in the product.:  
417 lbs Oxamyl

SARA Reportable Quantity : Based on the percentage composition of this chemical in the product.:  
417 lbs Oxamyl

EPA Reg. No. : 352-372  
In the United States this product is regulated by the US Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

California Prop. 65 : This product can expose you to Methanol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**SECTION 16. OTHER INFORMATION**

	NFPA
Health :	2
Flammability :	3
Reactivity/Physical hazard :	0



**DuPont™ Vydate® L Insecticide/Nematicide**

Version 5.0

Issue Date : 03/18/2019 Ref. 130000000046  
Revision Date : 10/08/2018

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Contact person : DuPont Crop Protection, Wilmington, DE, 19805, Phone: 1-888-638-7668

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.