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DuPont
Material Safety Data Sheet

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"DuPont" "VYDATE" L INSECTICIDE/NEMATICIDE
M0000057 Revised 22-MAY-2007

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

"Vydate" is a registered trademark of DuPont.

DuPont is a trademark of DuPont.

Corporate MSDS Number : DU002105

Tradenames and Synonyms

Vydate L
DPX-D1410
OXAMYL

Company Identification

MANUFACTURER/DISTRIBUTOR

DuPont
1007 Market Street
Wilmington, DE 19898

PHONE NUMBERS

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

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
OXAMYL (METHYL N'N'-DIMETHYL-N-[(METHYLCARBAMOYL)- OXY]-1-THIOOXAMIMIDATE)	23135-22-0	24
INERT INGREDIENTS (INCLUDES PERCENTAGES OF THE FOLLOWING:)		76
*METHYL ALCOHOL	67-56-1	35-45

* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

HAZARDS IDENTIFICATION

Emergency Overview

DANGER-POISON! Fatal if swallowed. May be fatal if inhaled. Do not breathe spray mist. Causes moderate eye irritation. Avoid contact with eyes or clothing. Contains methanol which may cause blindness.

Potential Health Effects

Based on animal data, eye contact with Vydate I may cause eye irritation with discomfort, tearing, or blurring of vision.

OXAMYL

Based on animal data, skin contact, eye contact, inhalation or ingestion exposures to Oxamyl may cause acute cholinesterase depression characterized by weakness, nausea, headache, abdominal cramps, excessive salivation, tearing, constricted pupils, blurred vision, muscle twitching and confusion. Higher exposures may lead to loss of consciousness, convulsions, or severe respiratory depression.

METHANOL

Methanol is a skin, eye, and upper respiratory tract irritant. Inhalation, ingestion, or skin absorption may initially include: visual disturbances including blindness; temporary nervous system depression with anesthetic effects such as dizziness, headache, confusion, incoordination, and loss of consciousness; nonspecific discomfort, such as nausea, headache, or weakness; acidosis; irritation of the upper respiratory passages; or fatality from gross over-exposure.

Carcinogenicity Information

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

FIRST AID MEASURES

First Aid

CONTAINS AN N-METHYL CARBAMATE THAT INHIBITS CHOLINESTERASE.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

(FIRST AID MEASURES - Continued)

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

IF IN EYES: 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.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

ATROPINE IS AN ANTIDOTE -- SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If symptoms appear (see SYMPTOMS), get medical attention.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

SYMPTOMS--Oxamyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors.

Notes to Physicians

TREATMENT--Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to this product alone. However, for exposure to combinations of this product and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

For medical emergencies involving this product, call toll free 1-800-441-3637.

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point : 23 C (73 F)
Method : Closed Cup

May be ignited by heat, sparks, or open flame.

Flammable liquid. Vapor forms explosive mixture with air.
Heating can release vapors which can be ignited.

Extinguishing Media

Water Spray, Foam, Dry Chemical, CO2.

Fire Fighting Instructions

Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Shut off source of fuel, if possible and without risk. Use water spray. Cool tank/container with water spray. Runoff from fire control may be a pollution hazard.

If area is exposed to fire and conditions permit, let fire burn itself out. Burning chemicals may produce by-products more toxic than the original material. If product is on fire, wear self-contained breathing apparatus and full protective equipment. Use water spray. Control runoff.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

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

Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus. Keep upwind of leak - evacuate until gas has dispersed.

Emergency Response - Chemical resistant coveralls, waterproof gloves, waterproof boots and face/eye protection. If dusting occurs, use NIOSH approved respirator protection.

Initial Containment

Remove source of heat, sparks, flame, impact, friction or electricity. Dike spill. Prevent material from entering sewers, waterways, or low areas.

Follow applicable Federal, State/Provincial and Local laws/regulations.

(ACCIDENTAL RELEASE MEASURES - Continued)

Spill Clean Up

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 aluminum shovel.

Neutralize with solid sodium hydroxide at rate of 3 lb per gallon spilled.

HANDLING AND STORAGE

Handling (Personnel)

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/-PPE immediately if pesticide gets inside. Then 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, sparks, and open flame. Keep container closed. Use with adequate ventilation.

Storage

Do not contaminate water, food, or feed by storage or disposal. Do not subject to temperatures below 32°F. Store product in original container only. Not for use or storage in or around the home. Keep out of reach of children.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Refer to the product label.

Personal Protective Equipment

Some materials that are chemical resistant to this product are listed below. If you want more options follow the instructions for Category C on the EPA chemical resistance category selection chart.

Mixers, loaders, applicators and other handlers must wear:

- Coveralls over long-sleeved shirt and long pants.

(EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

- Chemical-resistant gloves, such as barrier laminate or butyl rubber or neoprene rubber or polyvinyl chloride (PVC) or viton or nitrile rubber.
- Chemical-resistant footwear, plus socks.
- Protective eyewear.
- Chemical-resistant headgear for overhead exposure.
- Chemical-resistant apron when cleaning equipment, mixing or loading.
- A respirator with an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/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.

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

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.
- Socks and shoes.

Exposure Guidelines

Applicable Exposure Limits

OXAMYL

PEL (OSHA) : None Established
 TLV (ACGIH) : None Established
 AEL * (DuPont) : 0.05 mg/m³, 8 & 12 Hr. TWA

METHYL ALCOHOL

PEL (OSHA) : 200 ppm, 260 mg/m³, 8 Hr. TWA
 TLV (ACGIH) : 200 ppm, 8 Hr. TWA, Skin
 STEL 250 ppm
 AEL * (DuPont) : 200 ppm, 8 & 12 Hr. TWA, Skin

* 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.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Solubility in Water : Soluble
Odor : Slightly sulfurous
Form : Liquid
Color : Green, blue, or colorless depending on
region
Density : 0.97-0.98 g/cc

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials

Incompatible with strong acids or bases (slowly hydrolyzes).

Decomposition

Decomposition will not occur.

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

VYDATE L

Inhalation 4 hour LC50: 0.3 mg/L in rats
(Highly toxic)
Ingestion LD50: 10 mg/kg in male rats
Ingestion LD50: 9 mg/kg in female rats
(Highly toxic)
Skin absorption LD50: > 5000 mg/kg in rats
(Slightly toxic)

Vydate L is a slight eye irritant, but is not a skin irritant or skin sensitizer in animals.

Single exposure to Vydate L by ingestion or inhalation caused signs of cholinesterase inhibition including salivation, tremors, and mortality.

OXAMYL

Repeated or long-term oral exposure to Oxamyl caused non-specific effects such as weight loss, irritation, and liver enzyme changes, as well as signs of cholinesterase

(TOXICOLOGICAL INFORMATION - Continued)

inhibition.

Tests in animals demonstrate no carcinogenic activity. Oxamyl did not produce birth defects in developmental studies in rats and rabbits. There was no indication of increased fetal susceptibility to Oxamyl in these studies.

Tests in animals demonstrate no effect on reproductive indices (mating, fertility, or gestation). There was no indication of increased offspring susceptibility in a two generation reproduction study.

Oxamyl does not produce genetic damage in bacterial or mammalian cell cultures, but has not been tested in animals.

ECOLOGICAL INFORMATION

Ecotoxicological Information

VYDATE L

AQUATIC TOXICITY:

96 hour LC50, Rainbow trout: 12.4 ppm
48 hour LC50, Daphnia magna: 1.95 ppm

AVIAN TOXICITY:

Acute LD50, Bobwhite Quail: 39.2 mg/kg
Acute LD50, Mallard Duck: 10.75 mg/kg

8-Day Dietary LC50 - Bobwhite Quail: 225 ppm
8-Day Dietary LC50 - Mallard Duck: 1536 ppm

OXAMYL

AQUATIC TOXICITY:

96 hour LC50, Rainbow trout: 4.2 mg/L.
96 hour LC50, Sheepshead minnow: 2.6 mg/L.
96 hour LC50, Bluegill Sunfish: 5.6 ppm

AVIAN TOXICITY:

Acute LD50, Cotumix Quail: 4.18 mg/kg

8-Day Dietary LC50 - Bobwhite Quail: 340 ppm
8-Day Dietary LC50 - Mallard Duck: 766 ppm

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops or weeds if bees are visiting the treatment area.

DISPOSAL CONSIDERATIONS

Waste Disposal

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.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms (fish and invertebrates) and extremely toxic to birds and mammals. Cover or disc spill areas. Birds and mammals in treated areas may be killed. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment waste waters.

Container Disposal

For Metal Containers (non aerosol): Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by the State and local authorities.

For Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For Container Refilling and Disposal (For Containers up to 250 gal): Refer to the product label for instructions.

TRANSPORTATION INFORMATION

Shipping Information

DOT/IMO

Proper Shipping Name : CARBAMATE
PESTICIDE, LIQUID, TOXIC, FLAMMABLE
(Oxamyl, Methanol)
Hazard Class : 6.1
UN No. : UN 2991
Packing Group : II
Subsidiary Hazard Class : 3

(TRANSPORTATION INFORMATION - Continued)

Marine Pollutant : MARINE POLLUTANT (Oxamyl)-Water or Bulk
Reportable Quantity : Yes (if 5,000 or more pounds
methanol in a single container)

REGULATORY INFORMATION

U.S. Federal Regulations

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes
Chronic : No
Fire : Yes
Reactivity : No
Pressure : No

This product is registered under EPA/FIFRA regulations. It is a violation of Federal Laws to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

EPA Reg. No. 352-372.

ADDITIONAL REGULATORY INFORMATION:

Section 302 Extremely Hazardous Substance:
Oxamyl - Threshold Planning Quantity (TPQ)
(100/10,000 lbs.)

SARA/CERCLA Reportable Quantity (RQ):
Oxamyl (100 lbs.)
Methyl Alcohol (5,000 lbs.)

RCRA Hazardous Waste: Oxamyl (P194)

OTHER INFORMATION

NFPA, NPCA-HMIS

NFPA Rating
Health : 2
Flammability : 3
Reactivity : 0

NPCA-HMIS Rating
Health : 3
Flammability : 3
Reactivity : 0

(Continued)

Personal Protection rating to be supplied by user depending on use conditions.

Additional Information

****RESTRICTED USE PESTICIDE****

Due to Acute Toxicity and Toxicity to Birds and Mammals.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS : DuPont Crop Protection
Address : Wilmington, Delaware 19898
Telephone : 1-888-638-7668

Indicates updated section.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS