
"Vydate" L Insecticide/Nematicide
M0000057 Revised 17-MAR-1999 Printed 14-JUN-1999

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

"Vydate" is a registered trademark of DuPont.

Corporate MSDS Number : DU002105

Company Identification

MANUFACTURER/DISTRIBUTOR

DuPont
1007 Market Street
Wilmington, DE 19898

PHONE NUMBERS

Product Information : 1-800-441-7515
Transport Emergency : CHEMTREC 1-800-424-9300
Medical Emergency : 1-800-441-3637

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
OXAMYL	23135-22-0	24
(METHYL N'N'-DIMETHYL-N-[(METHYLCARBAMOYL)- OXY]-1-THIOOXAMIMIDATE)		
INERT INGREDIENTS		76
(INCLUDES PERCENTAGES OF THE FOLLOWING:)		
*METHYL ALCOHOL	67-56-1	35-45
*METHYLENE CHLORIDE	75-09-2	<2

* 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! Contains methanol. May be fatal or c blindness if swallowed. May be fatal if absorbed through skin or inhaled.

Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Pilot should not assist in the mixing and loading operation.

WARNING SYMPTOMS (All Oxamyl Products)

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.

Potential Health Effects

SUPPLEMENTAL INFORMATION

METHANOL

Methanol is a skin, eye, and upper respiratory tract irritant. Inhalation, ingestion, or skin absorption may initially include: visual disturbances including blindness; tempory nervous system depression wtih anaesthetic 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 overexposure.

Individuals with preexisting diseases of the retina or liver may have increased susceptibility to methanol toxicity.

METHYLENE CHLORIDE

The compound is a skin, eye, nose and throat irritant and may cause skin rashes, defatting, burns and ulceration on prolong exposure. Moderate to high exposures via inhalation or ingestion may cause dizziness, headache, confusion, incoordination, pulmonary edema, loss of consciousness and elevated levels of carbon monoxide in the blood. High exposures may cause red blood cell destruction and fatal heart irregularities.

Based on animal data, skin contact with Oxamyl may cause dermatitis with itching or rash. Skin permeation may occur in amounts capable of producing the effects of systemic toxicity.

(HAZARDS IDENTIFICATION - Continued)

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.

Individuals with pre-existing diseases of the central nervous system or conditions which lower cholinesterase levels may have increased susceptibility to the toxicity of excessive exposures.

Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

Material	IARC	NTP	OSHA	ACGIH
METHYLENE CHLORIDE	2B	X	X	

FIRST AID MEASURES

First Aid

INHALATION

If inhaled, immediately remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT

In case of contact, wash skin with plenty of soap and water. Wash contaminated clothing before reuse. Get medical attention if irritation persists.

EYE CONTACT

In case of contact, flush eyes with plenty of water. Call a physician if irritation persists.

INGESTION

If ingested, call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching the back of the throat with finger. If person is unconscious, do not give anything by mouth and do not induce vomiting.

(FIRST AID MEASURES - Continued)

Notes to Physicians

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

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.

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 lbs. per gallon spilled.

HANDLING AND STORAGE

Handling (Personnel)

Do not breathe vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Wash clothing after use. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing 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)

Keep away from heat, sparks and flames.

Storage

Store above 0 C (32 F). Store product in original container only. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material. Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation.

Personal Protective Equipment

Always follow the label instructions when handling this product.

Applicators and other handlers must wear:

Coveralls over short-sleeved shirt and short pants.
Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or polyvinyl chloride or viton or neoprene rubber.
Chemical-resistant footwear plus socks.
Protective eyewear.
Chemical-resistant headgear for overhead exposure.
Chemical-resistant apron when mixing, or loading, or cleaning equipment.

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 over short-sleeved shirt and short pants.

(EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or polyvinyl chloride or viton or neoprene rubber.
Chemical-resistant footwear plus socks.
Protective eyewear.
Chemical-resistant headgear for overhead exposure.

Exposure Guidelines

Applicable Exposure Limits

OXAMYL

PEL (OSHA) : None Established
TLV (ACGIH) : None Established
AEL * (DuPont) : 0.5 mg/m³, 8 Hr. TWA
1.0 mg/m³, 15 minute TWA

METHYL ALCOHOL

PEL (OSHA) : 200 ppm, 260 mg/m³, 8 Hr. TWA
TLV (ACGIH) : 200 ppm, 8 Hr. TWA, Skin
STEL 250 ppm
Notice of Intended Changes (1998)
200 ppm, 8 Hr. TWA, Skin, A4
STEL 250 ppm
AEL * (DuPont) : 200 ppm, 8 & 12 Hr. TWA, Skin

METHYLENE CHLORIDE

PEL (OSHA) : 25 ppm, 8 Hr. TWA
STEL 125 ppm, 15 minute TWA
action level, 12.5 ppm, 8 Hr. TWA
TLV (ACGIH) : 50 ppm, 174 mg/m³, 8 Hr. TWA, A3
AEL * (DuPont) : 50 ppm, 8 Hr. TWA
25 ppm, 12 Hr. TWA

* 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 or blue 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

Single or repeated skin contact with Oxamyl caused mild skin irritation and cholinesterase inhibition (tremors, salivation, watery eyes).

Single exposure to Oxamyl by ingestion caused signs of cholinesterase inhibition, reduced weight gain, and temporary alterations in clinical chemistry including liver enzymes and glucose levels. Repeated or long-term exposure caused nonspecific effects such as weight loss and irritation, as well as signs of cholinesterase inhibition. Changes in liver enzyme levels have been reported, but the structure of the liver itself appeared normal. In an acute neurotoxicity study there was unequivocally decreased blood and brain cholinesterase activity. The NOEL in this study was 0.1 mg/kg.

Tests in animals demonstrate no carcinogenic activity. Tests in some animals indicate that Oxamyl may have developmental toxicity, but only at doses close to those which cause maternal toxicity. The only reported effects were slightly reduced fetal weights and fewer implantations. Tests in animals demonstrate no effect on reproductive indices (mating, fertility, or gestation). Reductions in litter size, pup weight and survival occurred only at dose levels that also caused toxicity in the parental animals.

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

(TOXICOLOGICAL INFORMATION - Continued)

Acute Animal Data - "Vydate" L

Oral LD50: 37 mg/kg (male rats)
Highly toxic by ingestion.

Dermal LD50: 2,960 mg/kg (rabbits)
Moderately toxic by contact.

Product was not irritating to the skin of guinea pigs when applied at sub-lethal doses; it is not a skin sensitizer.

INHALATION

1-Hour, LC50, 0.035 mg/L.

ECOLOGICAL INFORMATION

Ecotoxicological Information

Aquatic Toxicity

"Vydate" L

96 hour LC50, rainbow trout: 12.4 ppm

DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system. Do not contaminate water supply, food or feed by storage or 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.

Container Disposal

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

TRANSPORTATION INFORMATION

Shipping Information

DOT/IMO
Proper Shipping Name : PESTICIDES, LIQUID, TOXIC, FLAMMABLE,
N.O.S.
(oxamyl, methanol)
Hazard Class : 6.1
UN No. : UN 2903
Marine Pollutant : MARINE POLLUTANT (water or bulk)
Subsidiary Hazard Class : 3
Packing Group : I

REGULATORY INFORMATION

U.S. Federal Regulations

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

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

ADDITIONAL REGULATORY INFORMATION

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

SARA/CERCLA Reportable Quantity:
Oxamyl (1 lb)
Methyl alcohol (5000 lbs)
Methylene chloride (1000 lbs)

RCRA Hazardous Waste: Oxamyl (P194)

REGULATORY CONTROLS

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.

OTHER INFORMATION

NFPA, NPCA-HMIS

NFPA Rating
Health : 2
Flammability : 3
Reactivity : 0

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

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
Address : Agricultural Products
Wilmington, DE 19898
Telephone : 800-441-7515

Indicates updated section.

End of MSDS