

**DuPont™ Lannate® SP Insecticide**

Version 3.0

Issue Date : 03/18/2019 Ref. 130000000505
Revision Date : 02/07/2019

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™ Lannate® SP Insecticide
Tradename/Synonym : B10029800
DPX-X1179 90SP
Yugo
Lannate SP
Methomyl 90SP
Lannate 90WD
90WD
METHOMYL (S-methyl N-[(methylcarbamoyl)oxy]thioacetimidate)

Product Use : Insecticide

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**

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

DuPont™ Lannate® SP Insecticide

Version 3.0

Issue Date : 03/18/2019
Revision Date : 02/07/2019

Ref. 130000000505

Label content

Pictogram :



Signal word : Danger

Hazardous warnings : Fatal if swallowed or if inhaled.
May cause drowsiness or dizziness.Hazardous prevention measures : 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 respiratory protection.
IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Immediately call a POISON CENTER/doctor.
Store in a well-ventilated place. Keep container tightly closed.
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.

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 1.1375 %

**DuPont™ Lannate® SP Insecticide**

Version 3.0

Issue Date : 03/18/2019
Revision Date : 02/07/2019

Ref. 130000000505

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Methomyl	16752-77-5	90 %
Other Ingredients		10 %

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 : Call a physician or poison control centre 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. Never give anything by mouth to an unconscious person.



DuPont™ Lannate® SP Insecticide

Version 3.0

Issue Date : 03/18/2019 Ref. 130000000505
 Revision Date : 02/07/2019

Most important symptoms/effects, acute and delayed : Poisoning produces effects associated with anticholinesterase activity which may include: Weakness Blurred vision Headache Nausea Abdominal pain discomfort in the chest constriction of pupils Sweating slow pulse 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. Probable mucosal damage may contraindicate the use of gastric lavage. Morphine, 2-PAM and oxime therapy are contra-indicated. Administer atropine sulphate as an antidote until complete atropinisation (1.2-2.0 mg i.v. every 10-30 minutes). However, for exposure to methomyl in combination with organophosphorous insecticides, 2-PAM (1-2 g slow i.v.) may be used as required to supplement the atropine sulfate treatment as described above. 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, Foam, Dry chemical, Carbon dioxide (CO₂)

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

Specific hazards : Fire or intense heat may cause violent rupture of packages. Dust may form explosive mixture in air.

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

Further information : 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.

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™ Lannate® SP Insecticide**

Version 3.0

Issue Date : 03/18/2019 Ref. 130000000505
Revision Date : 02/07/2019

- 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 : Sweep up and shovel into suitable containers for disposal. Soak up with sawdust, sand, oil dry or other absorbent material. If product enters crevices and can not be removed, treat with a sodium hydroxide solution and allow to stand 4 hours. Note: Sodium hydroxide is caustic and causes burns. Do not get in eyes, skin or clothing.
- 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) : Do not breathe dust or spray mist. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. 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. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing.
- Handling (Physical Aspects) : 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. Handle this package carefully to prevent breakage of inner bag when stored at low temperatures. Allow to warm above 10°C (50°F) for normal handling. Store in original container. Keep container tightly closed in a dry and well-ventilated place. 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 : No applicable data available.


DuPont™ Lannate® SP Insecticide

Version 3.0

Issue Date : 03/18/2019 Ref. 130000000505
 Revision Date : 02/07/2019

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 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 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. Use only with adequate ventilation.
- Personal protective equipment
- Respiratory protection : For exposures in enclosed areas: 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.
 For exposures outdoors: A NIOSH approved dust/mist filtering respirator with any R, P, or HE filter or with approval number prefix TC-21C.
- Skin and body protection : Applicators and other handlers exposed to the diluted material must wear:
 Long sleeved shirt and long pants
 Chemical-resistant gloves
 Shoes plus socks
 Protective eyewear
 Mixers, loaders, applicators and other handlers who may be exposed to the concentrate must wear:
 Long sleeved shirt and long pants
 Chemical-resistant gloves
 Chemical resistant footwear plus socks
 Protective eyewear
 Chemical resistant apron
 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, Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all greater than or equal to 14 mils
 Shoes plus socks
 Protective eyewear
- 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


DuPont™ Lannate® SP Insecticide

Version 3.0

 Issue Date : 03/18/2019
 Revision Date : 02/07/2019

Ref. 130000000505

instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

 Exposure Guidelines
 Exposure Limit Values

Methomyl			
TLV	(ACGIH)	0.2 mg/m ³	TWA
REL	(NIOSH)	2.5 mg/m ³	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
PEL (Permissible Exposure Limit)	(OSHA)	2.5 mg/m ³	TWA

Biological Exposure Indices

Methomyl			
BEI	(ACGIH)	70	Acetylcholinesterase activity/In red blood cells End of shift
BEI	(ACGIH)	60	Butyrylcholinesterase activity/In serum or plasma 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 : solid
 Form : solid, powder
 Color : white, or, blue

Odor : slight, sulphurous

Odor threshold : No applicable data available.

pH : No applicable data available.

Melting point/range : No applicable data available.

Boiling point/boiling range : No applicable data available.

**DuPont™ Lannate® SP Insecticide**

Version 3.0

Issue Date : 03/18/2019 Ref. 130000000505
Revision Date : 02/07/2019

Flash point : Not applicable
Evaporation rate : No applicable data available.
Flammability (solid, gas) : No applicable data available.
Upper explosion limit : No applicable data available.
Lower explosion limit : 0.096 g/l
Vapour Pressure : No applicable data available.
Vapour density : No applicable data available.
Specific gravity (Relative density) : 1.2946 at 25 °C (77 °F)
Water solubility : 58 g/l at 25 °C (77 °F)
Solubility(ies) : No applicable data available.
Partition coefficient: n-octanol/water : No applicable data available.
Auto-ignition temperature : No applicable data available.
Decomposition temperature : No applicable data available.
Viscosity, kinematic : No applicable data available.
Viscosity, dynamic : No applicable data available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No applicable data available.
Chemical stability : Stable at normal temperatures and storage conditions.
Possibility of hazardous reactions : No applicable data available.
Conditions to avoid : No applicable data available.
Incompatible materials : Incompatible products Strong bases
Hazardous decomposition : Hazardous thermal decomposition products:: Sulphur oxides, Methyl


DuPont™ Lannate® SP Insecticide

Version 3.0

Issue Date : 03/18/2019 Ref. 130000000505
 Revision Date : 02/07/2019

products isocyanate, Hydrogen cyanide (hydrocyanic acid)

SECTION 11. TOXICOLOGICAL INFORMATION
DuPont™ Lannate® SP Insecticide

Oral LD50 : 23 mg/kg , Rat

Skin irritation : No skin irritation, Rabbit

Eye irritation : slight irritation, Rabbit

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.

Methomyl

Inhalation 4 h LC50 : 0.258 mg/l , Rat

Dermal LD50 : > 2,000 mg/kg , Rabbit

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., altered hematology

Carcinogenicity : Animal testing did not show any carcinogenic effects.

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 no reproductive toxicity.
 No effects on or via lactation

Teratogenicity : Animal testing showed no developmental toxicity.


DuPont™ Lannate® SP Insecticide

Version 3.0

Issue Date : 03/18/2019 Ref. 130000000505
 Revision Date : 02/07/2019

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.

Silica gel, precipitated,
 crystalline-free

SECTION 12. ECOLOGICAL INFORMATION
Aquatic Toxicity
Methomyl

96 h LC50	:	Lepomis macrochirus (Bluegill sunfish) 0.63 mg/l
72 h EC50	:	Pseudokirchneriella subcapitata (green algae) > 100 mg/l
72 h NOEC	:	Pseudokirchneriella subcapitata (green algae) 100 mg/l
48 h EC50	:	Daphnia magna (Water flea) 0.0088 mg/l
48 h EC50	:	Daphnia magna (Water flea) 0.017 mg/l
35 d	:	NOEC Pimephales promelas (fathead minnow) 0.073 mg/l
21 d	:	NOEC Daphnia magna (Water flea) 0.0016 mg/l

Environmental Fate
Methomyl

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. Do not apply this product if bees are visiting the treatment area. See product label for additional application instructions relating



DuPont™ Lannate® SP Insecticide

Version 3.0

Issue Date : 03/18/2019
 Revision Date : 02/07/2019

Ref. 130000000505

to environmental precautions. No data is available on the product itself.

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.
 If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product.
DO NO REUSE THE CONTAINER FOR ANY OTHER PURPOSE.
 Do not transport if this container is damaged or leaking.

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	: 2757
	Proper shipping name	: Carbamate pesticides, solid, toxic (Methomyl)
	Class	: 6.1
	Packing group	: II
IATA_C	Labelling No.	: 6.1
	UN number	: 2757
	Proper shipping name	: Carbamate pesticide, solid, toxic (Methomyl)
	Class	: 6.1
IMDG	Packing group	: II
	Labelling No.	: 6.1
	UN number	: 2757
	Proper shipping name	: CARBAMATE PESTICIDE, SOLID, TOXIC (Methomyl)
	Class	: 6.1
	Packing group	: II



DuPont™ Lannate® SP Insecticide

Version 3.0

Issue Date : 03/18/2019 Ref. 130000000505
 Revision Date : 02/07/2019

Labelling No. : 6.1

Marine pollutant : yes (Methomyl)

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!

Fatal if swallowed. May be fatal if inhaled or absorbed through eyes. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Do not breathe vapours or spray mist. Wear protective eyewear and respirator. Harmful if absorbed through skin. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. This product is toxic to fish. This product is toxic to: Aquatic invertebrates Mammals

SARA 311/312 Hazard classification : Acute toxicity (any route of exposure)
 Specific target organ toxicity (single or repeated exposure)

SARA 313 Regulated Chemical(s) : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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):
 Methomyl, Silica gel, precipitated, crystalline-free

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

111 lbs	Methomyl
---------	----------

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

111 lbs	Methomyl
---------	----------

**DuPont™ Lannate® SP Insecticide**

Version 3.0

Issue Date : 03/18/2019 Ref. 130000000505
Revision Date : 02/07/2019

EPA Reg. No. : 352-342
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 does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16. OTHER INFORMATION

	NFPA
Health :	2
Flammability :	1
Reactivity/Physical hazard :	1

™ Trademark of E.I. du Pont de Nemours and Company.
® Registered trademark of E.I. du Pont de Nemours and Company

Issue Date : 03/18/2019
Revision Date : 02/07/2019

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.