

**LANNATE® 900 SP**

Version 3.2

Revision Date 12.11.2010

Ref.130000000505

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 : LANNATE® 900 SP

Synonyms : DPX-X1179 90SP  
: B10029800

Use of the Substance/Mixture : Insecticide

Company : DuPont de Nemours South Africa (Pty) Ltd  
34 Whiteley Road  
Block B, 1st Floor  
Melrose Arch  
South Africa

Telephone : +27 11 218 8600

Telefax : +27 11 218 8664

Emergency telephone number : +27 (0)83 123 3911

E-mail address : sds-support@che.dupont.com

**2. HAZARDS IDENTIFICATION**

Toxic by inhalation.  
Very toxic if swallowed.  
Very 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 [%]
Methomyl	16752-77-5	240-815-0		T+; R28 N; R50 -R53	90

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.  
Never give anything by mouth to an unconscious person.

Inhalation : Move to fresh air. Artificial respiration and/or oxygen may be necessary. Call a physician or poison control centre immediately.

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- 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.

**Notes to physician**

- Risks : This product is a cholinesterase inhibitor carbamate.
- Symptoms : 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
- Treatment : 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.

**5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media : Water spray, Foam, Dry chemical, Carbon dioxide (CO<sub>2</sub>),
- 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 (CO<sub>2</sub>) nitrogen oxides (NO<sub>x</sub>)
- 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.

**6. ACCIDENTAL RELEASE MEASURES**

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- Personal precautions : Evacuate personnel to safe areas. Avoid breathing dust. Avoid dust formation. Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. 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 : During processing, dust may form explosive mixture in air. Keep away from heat and sources of ignition. Avoid dust formation in confined areas.

**Storage**

- Requirements for storage areas and containers : Keep locked up. Store in original container. Store in a place accessible by authorized persons only. 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.
- Storage temperature : < 38 °C
- 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
Methomyl	16752-77-5	TWA	2,5 mg/m3	1995	ZA REL
		SKIN_DES		1995	ZA REL
		Can be absorbed through skin.			

**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)

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 : Material: Nitrile rubber  
 Glove thickness: 0,4 - 0,7 mm  
 Glove length : Gauntlets  
 Protection index: Class 6  
 Wearing time: > 480 min  
 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.

Eye protection : Safety glasses with side-shields conforming to EN166

Skin and body protection : Manufacturing and processing work: Full protective clothing Type 5 (EN 13982-2)

Mixer and loaders must wear: Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034) Rubber apron Rubber or plastic boots

Spray application - outdoor: Full protective clothing Type 3 (EN 14605) Rubber or plastic boots

Spray application - indoor: Full protective clothing Type 3 (EN 14605) Rubber or plastic boots

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**II**

- Hygiene measures** : Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing. Keep working clothes separately. Contaminated work clothing should not be allowed out of the workplace. Avoid breathing dust. Avoid contact with skin, eyes and clothing. Wash hands and face before breaks and immediately after handling the product. When using do not eat or drink. Keep away from food, drink and animal feedingstuffs. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing. Dispose of rinse water in accordance with local and national regulations.
- 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. Only protected handlers may be in the area during application.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

- Form** : solid, powder,
- Colour** : off-white,
- Odour** : slight, sulphurous,
- pH** : 6,8 - 7,2 at 10 g/l ( 25 °C)
- Melting point/range** : 78 - 79 °C
- Flash point** : not applicable
- Explosive properties** : Not explosive
- Relative density** : 1,2946 at 25 °C
- Bulk density** : 540 - 640 kg/m<sup>3</sup>
- Water solubility** : 58 g/l at 25 °C

**10. STABILITY AND REACTIVITY**

- Conditions to avoid** : Temperature : > 38 °C
- Materials to avoid** : No materials to be especially mentioned.
- Hazardous decomposition products** : Hydrogen cyanide (hydrocyanic acid), Sulphur dioxide, Methyl isocyanate
- Hazardous reactions** : No decomposition if stored and applied as directed.

**11. TOXICOLOGICAL INFORMATION**

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Acute oral toxicity	: LD50/ rat: 23 mg/kg(Data on the product itself) Information source: Internal study report
Acute inhalation toxicity	: LC50/ rat : 0,258 mg/l Method: OECD Test Guideline 403 The toxicological data has been taken from products of similar composition. Information source: Internal study report
Acute dermal toxicity	: LD50/ rat > 2 000 mg/kg Method: US EPA Test Guideline OPP 81-2 The toxicological data has been taken from products of similar composition. Information source: Internal study report
Skin irritation	: rabbit Result: No skin irritation Method: OECD Test Guideline 404 The toxicological data has been taken from products of similar composition. Information source: Internal study report
Eye irritation	: rabbit Result: No eye irritation Method: OECD Test Guideline 405 The toxicological data has been taken from products of similar composition. Information source: Internal study report
Sensitisation	: guinea pig Result: Animal test did not cause sensitization by skin contact. (Data on the product itself) Information source: Internal study report
Mutagenicity assessment Methomyl	: Tests on bacterial or mammalian cell cultures did not show mutagenic effects., Did not cause genetic damage in animals.
Carcinogenicity assessment • Methomyl	: Did not show carcinogenic effects in animal experiments.
Toxicity to reproduction assessment • Methomyl	: Animal testing showed no reproductive toxicity.
Further information	: May be lethal if absorbed through eyes: a rabbit died via ocular exposure. This exposure was within the equivalent range that produced mortalities via oral administration.

**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/ Oncorhynchus mykiss (rainbow trout) :: 2,49 mg/l
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Method: OECD Test Guideline 203  
The toxicological data has been taken from products of similar composition.  
Information source: Internal study report

LC50/ 96 h/ *Lepomis macrochirus* (Bluegill sunfish) :: 0,63 mg/l  
Method: OECD Test Guideline 203  
The toxicological data has been taken from products of similar composition.  
Information source: Internal study report

Toxicity to algae : / ErC50/ 72 h/ *Pseudokirchneriella subcapitata*: > 100 mg/l  
Method: OECD Test Guideline 201  
The toxicological data has been taken from products of similar composition.  
Information source: Internal study report

Toxicity to daphnia : static test / EC50/ 48 h/ *Daphnia*: 0,017 mg/l  
Method: OECD Test Guideline 202  
The toxicological data has been taken from products of similar composition.  
Information source: Internal study report

Chronic toxicity to aquatic Invertebrates

• Methomyl : / NOEC/ 21 d/ *Daphnia magna* (Water flea): 0,0016 mg/l

**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.

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 (Methomyl)

**IATA\_C**

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

**IMDG**

Class: 6.1  
Packaging group: II

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UN number: 2757  
 Labelling No.: 6.1  
 Proper shipping name: Carbamate pesticide, solid, toxic (Methomyl)  
 Marine pollutant: Marine pollutant

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

Symbol(s)	: T+ N	Very toxic Dangerous for the environment
Hazardous components:	Methomyl	
R-phrase(s)	: R23 R28 R50/53	Toxic by inhalation. Very toxic if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S 1/2 S13 S20/21 S23 S24/25 S36/37/39  S38 S45 S35 S57 SP 1  SPo 2	Keep locked up and 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. Avoid contact with skin and eyes. Wear suitable protective clothing, gloves and eye/face protection. In case of insufficient ventilation, wear suitable respiratory equipment. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of in a safe way. Use appropriate container to avoid environmental contamination. 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). Wash all protective clothing after use.
Special labelling of certain mixtures	: To avoid risks to man and the environment, comply with the instructions for use.	

**16. OTHER INFORMATION****Text of R-phrases mentioned in Section 3**

R28	Very toxic if swallowed.
R50	Very toxic to aquatic organisms.
R53	May cause long-term adverse effects in the aquatic environment.





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**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.

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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The above information relates only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.