



Material Safety Data Sheet

SEVIN[®] SL CARBARYL INSECTICIDE

MSDS Number: 200
MSDS Version 1.3

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name SEVIN[®] SL CARBARYL INSECTICIDE
Chemical Name CARBARYL
Synonym
MSDS Number 200
Chemical Family
Chemical Formulation C₁₂H₁₁NO₂
EPA Registration No. 432-1227
Canadian Registrat. No.

Aventis
95 Chestnut Ridge Road
Montvale, NJ 07645
USA

☎ For Product Use Information: (800)331-2867 Monday through Friday
8:00AM-4:30PM
For Medical Emergency contact DART: (800) 334-7577 24 Hours/Day
For Transportation Emergency CHEMTREC: (800) 424-9300 24 Hours/Day

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component Name</u>	<u>CAS No.</u>	<u>Concentration % by Weight</u>	
		<u>Minimum</u>	<u>Maximum</u>
CARBARYL, (1-NAPHTHYL N- METHYLCARBAMATE)	63-25-2	43.0000	
1,2-Propylene glycol	57-55-6		
ETHANOL	64-17-5		
Other ingredients (Trade secret)			

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview CAUTION! MAY BE HARMFUL IF INGESTED.

Physical State liquid

Odor mild odor.

Appearance off-white to pale yellow

Immediate Effects

Eye Causes redness, irritation, tearing.

Skin Harmful if absorbed through skin. May produce symptoms similar to those from ingestion.

Ingestion Harmful if ingested. This product causes reversible cholinesterase inhibition. Repeated overexposure may cause more severe cholinesterase inhibition with

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more pronounced signs and symptoms. May lead to rapid onset of nausea, vomiting, diarrhea, abdominal pain, involuntary shaking, excess salivation, pinpoint pupils, blurred vision, profuse sweating, temporary paralysis, respiratory depression, convulsions.

Inhalation Harmful if inhaled. May produce symptoms similar to those from ingestion.

Chronic or Delayed Long-Term This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

Medical Conditions Aggravated by Exposure Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

SECTION 4. FIRST AID MEASURES

Eye Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.

Skin In case of contact, immediately wash with plenty of soap and water for at least 5 minutes. Seek medical attention if irritation develops or persists. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before re-use.

Ingestion If victim is conscious and alert, give 2-3 glasses of water to drink and induce vomiting by touching back of throat with a finger. Do not induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention. Do not leave victim unattended. Vomiting may occur spontaneously. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. If vomiting occurs and the victim is conscious, give water to further dilute the chemical.

Inhalation Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation). Seek medical attention.

Note to Physician All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

This product contains a methyl carbamate insecticide, which is a cholinesterase inhibitor.

Overexposure to this substance may cause toxic signs and symptoms due to stimulation of the cholinergic nervous system. These effects of overexposure are spontaneously and rapidly reversible.

Specific treatment consists of parenteral atropine sulfate. Improve tissue oxygenation as much as possible before administering atropine to minimize the risk of ventricular fibrillation. Mild cases may be given 1 to 2 mg intramuscularly every 10 minutes until full atropinization has been achieved and repeated thereafter whenever symptoms reappear. Severe cases should be given 2 to 4 mg intravenously every 10 minutes until fully atropinized, then intramuscularly every 30 to 60 minutes as needed to maintain the effect for at least 12 hours. Dosages for children should be appropriately reduced. Complete recovery from

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overexposure is to be expected within 24 hours.

To aid in confirmation of a diagnosis, urine samples should be obtained within 24 hours of exposure and immediately frozen. Call Aventis at 1-800-334-7577 before sending samples. Analyses will be arranged by Aventis.

Persons regularly exposed in manufacturing and handling this product should have a preexposure and periodic red blood cell cholinesterase level checks.

Narcotics and other sedatives should not be used. Further, drugs like 2-PAM (pyridine-2-aldoxime methiodide) are NOT recommended.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point	> 93 °C / > 199 °F Flammability Class: WILL BURN
Lower Flammable Limit	2.6 %(V)
Upper Flammable Limit	19 %(V)
Fire and Explosion Hazards	Product will burn under fire conditions.
Suitable Extinguishing Media	Recommended (small fires): carbon dioxide, dry chemical, Recommended (large fire): alcohol foam, polymer foam, water spray.
Fire Fighting Instructions	Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Keep unnecessary people away, isolate hazard area and deny entry. Evacuate residents who are downwind of fire. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Persons who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation.

SECTION 6. ACCIDENTAL RELEASE MEASURES

General and Disposal	Evacuation Procedures and Safety: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8. Cleanup and Disposal of Spill: Absorb with an inert absorbent. Shovel up into an appropriate closed container (see Section 7: Handling and Storage). Decontaminate tools and equipment following cleanup.
Land Spill or Leaks	Containment of Spill: Stop leak if it can be done without risk. Dike spill using absorbent or impervious materials such as earth, sand or clay. Follow procedure described below under Cleanup and Disposal of Spill. Collect and contain contaminated absorbent and dike material for disposal. Environmental and Regulatory Reporting: Runoff from fire control or dilution water may cause pollution. Prevent material

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from entering public sewer system or any waterways. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies. If spilled on the ground, the affected area should be removed to a depth of one or two inches and placed in an appropriate container for disposal.

SECTION 7. HANDLING AND STORAGE

Handling Procedures	Avoid direct or prolonged contact with skin and eyes. Do not ingest. Do not breathe vapors and mists.
Storing Procedures	Store in original container. Store in an area that is cool, dry, away from foodstuffs or animal feed, out of reach of children and animals.
Work/Hygienic Procedures	<p>Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:</p> <ol style="list-style-type: none">(1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.(2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.(3) Wash exposed skin promptly to remove accidental splashes of contact with this material. <p>In addition, based upon the specific hazards of this product:</p> <ol style="list-style-type: none">(4) Do not take clothing/objects contaminated by this material off the work site.(5) Shower and change into street clothes before leaving the work site.
Min/Max Storage Temperatures	/ 38 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: general area dilution/exhaust ventilation.

Eye/Face Protection Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area.

Body Protection Skin contact should be prevented through use of suitable protective clothing, gloves and footwear, selected with regard for use conditions and exposure potential. Consideration must be given both to durability as well as permeation resistance.

Respiratory Protection When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified by the appropriate OSHA, WHMIS or ANSI standard(s): Air-purifying (half-mask/full-face) respirator with cartridges/canister approved for use against pesticides.

Under conditions immediately dangerous to life or health, or emergency conditions with unknown concentrations, use a full-face positive pressure air-supplied respirator equipped with an emergency escape airsupply unit or use a self-contained breathing apparatus unit.

Exposure Limits

CARBARYL, (1-NAPHTHYL N-METHYLCARBAMATE)	63-25-2	ACGIH	TWA		5 mg/m3
		NIOSH	REL		5 mg/m3
		OSHA Z1	PEL		5 mg/m3
		OSHA Z1A	TWA		5 mg/m3
		US CA OEL	TWA PEL		5 mg/m3
1,2-Propylene glycol	57-55-6	WEEL	TWA		50 ppm
		Form of Exposure		Total vapor and aerosol.	
		WEEL	TWA		10 mg/m3
		Form of Exposure		Aerosol.	
ETHANOL	64-17-5	ACGIH	TWA	1,000 ppm	1,880 mg/m3
		NIOSH	REL	1,000 ppm	1,900 mg/m3
		OSHA Z1	PEL	1,000 ppm	1,900 mg/m3
		OSHA Z1A	TWA	1,000 ppm	1,900 mg/m3

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US CA OEL TWA PEL 1,000 ppm 1,900 mg/m3

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	off-white to pale yellow
Physical State	liquid
Odor	mild odor.
pH	4 - 5 at 1 wt/wt%.
Vapor Pressure	17.8 mmHg at 20 °C
Vapor Density (air = 1)	0.62
Specific Gravity	1.1 at 20 °C
Boiling Point	98 °C at 760 mmHg
Melting/Freezing Point	-3.0 °C
Solubility (in water)	miscible
Molecular Weight	201.2 g/mol
Decomposition Temperature	40 °C
Other Information	Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	This material is stable under normal handling and storage conditions described in Section 7.
Conditions to Avoid	extreme heat open flame
Incompatibility	strong acids bases
Hazardous Products of Decomposition	Decomposition Type: thermal oxides of nitrogen oxides of carbon methyl isocyanate (trace; no adverse effects expected)

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Hazardous Polymerization (Conditions to avoid) Will Not Occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity (Rat) LD50 - lethal dose 50% of test species, 590 mg/kg.

Acute Dermal Toxicity (Rabbit) LD50 - lethal dose 50% of test species, > 2000 mg/kg.

Acute Inhalation Toxicity Respiratory Irritation:
No test data found for product.

Acute Inhalation Toxicity:
(Rat) LC50 - lethal concentration 50% of test species, > 1.8 mg/l/4 hr.

Skin Irritation (Rabbit) Minimally irritating.

Eye Irritation (Rabbit) Slightly irritating.

Chronic Toxicity Carbaryl has been shown to cause tumors in laboratory animals in lifetime feeding studies. Carbaryl, when administered by various routes, at doses toxic to the maternal animals, has been shown to produce developmental toxicity in a number of species. Carbaryl produces no teratogenic effect in the absence of maternal toxicity.

Assessment Carcinogenicity

ACGIH

CARBARYL, (1-NAPHTHYL N-METHYLCARBAMATE)	63-25-2	Group A4
ETHANOL	64-17-5	Group A4

NTP

None

IARC

CARBARYL, (1-NAPHTHYL N-METHYLCARBAMATE)	63-25-2
ETHANOL	64-17-5

OSHA

None

SECTION 12. ECOLOGICAL INFORMATION

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Ecological Information The following data is based on the technical grade active ingredient(s) (TGAI).

Ecotoxicological Information and Interpretation:

Mallard duck(Anas platyrhynchos).

LC50- lethal concentration 50% of test species, > 5000 mg/kg/8 days,
Dietary concentrations.

Bobwhite quail (Colinus virginianus).

LC50 - lethal concentration 50% of test species, > 5000 mg/kg/8 days
Dietary concentrations.

Rainbow trout (Oncorhynchus mykiss).

LC50 - lethal concentration 50% of test species, 1950 ug/l/96 hr

Bluegill sunfish (Lepomis macrochirus)

LC50 - lethal concentration 50% of test species, 6760 ug/l/96 hr

Environmental Fate For chemical fate data call the product information phone number listed in Section 1.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

EPA Hazardous Waste - YES

SECTION 14. TRANSPORT INFORMATION

For Transportation Regulatory Information call the Product Information phone number in Section 1.

SECTION 15. REGULATORY INFORMATION

US Federal

EPA Registration No. 432-1227

TSCA list

CARBARYL, (1-NAPHTHYL N-METHYLCARBAMATE) 63-25-2

1,2-Propylene glycol 57-55-6

ETHANOL 64-17-5

TSCA 12b export notification

None

SARA Title III - section 302 - notification and information

None

SARA Title III - section 313 - toxic chemical release reporting

CARBARYL, (1-NAPHTHYL N-METHYLCARBAMATE) 63-25-2 1.0%

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US States Regulatory

CA Prop65

This product contains a chemical known to the state of California to cause cancer.

None

This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

None

US State right-to-know ingredients

CARBARYL, (1-NAPHTHYL N-METHYLCARBAMATE)	63-25-2	CA, CT, IL, MA, NJ, PA, RI
1,2-Propylene glycol	57-55-6	PA, RI
ETHANOL	64-17-5	CA, CT, IL, MA, NJ, PA, RI

Canadian Regulations

Canadian Registrat. No.

Canadian Domestic Substance List

1,2-Propylene glycol	57-55-6
ETHANOL	64-17-5

Environmental

CERCLA

CARBARYL, (1-NAPHTHYL N-METHYLCARBAMATE)	63-25-2	100 lbs
ETHANOL	64-17-5	100 lbs

Clean Water Section 307 Priority Pollutants

None

Safe Drinking Water Act Maximum Contaminant Levels

None

International Regulations

EU Classification

None

European Inventory of Existing Commercial Substances (EINECS)

CARBARYL, (1-NAPHTHYL N-METHYLCARBAMATE)	63-25-2
1,2-Propylene glycol	57-55-6
ETHANOL	64-17-5

SECTION 16. OTHER INFORMATION

	Health	Flammability	Reactivity	Others
HMIS	2	1	1	
NFPA	2	1	1	

Reason for Revisions: New Format

Print Date: 09/21/2001

Supersedes MSDS, which is older than: 09/21/2001

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