

**SEVIN® 80WSP CARBARYL INSECTICIDE**

MSDS Version 2.3

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name	SEVIN® 80WSP CARBARYL INSECTICIDE
Chemical Name	Carbaryl
Synonym	
MSDS Number	196
Chemical Family	
Chemical Formulation	C12H11NO2
EPA Registration No.	432-1226
Canadian Registrat. No.	

Bayer Environmental Science
 2 T.W. Alexander Drive
 Research Triangle PK, NC 27709
 USA

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

Product Use Description FIFRA regulated use only.

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	80.0000	
CALCIUM SILICATE	1344-95-2		
QUARTZ	14808-60-7	0.1100	
DIATOMACEOUS EARTH	61790-53-2		
Other ingredients (Trade secret)			

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SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview

Warning! Keep out of the reach of children. Hazard to humans and domestic animals. May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Harmful if gets in eyes.

Physical State

solid powder

Odor

phenolic

Appearance

off-white to pale yellow

Immediate Effects

Eye

Do not get in eyes. Causes redness, irritation, tearing.

Skin

Harmful if absorbed through skin. Do not get on skin or clothing. May produce symptoms similar to those from ingestion.

Ingestion

May be fatal if swallowed. This product causes reversible cholinesterase inhibition. Repeated overexposure may cause more severe cholinesterase inhibition with 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, and convulsions.

Inhalation

Harmful if inhaled. Do not breathe vapors, dusts or spray mists. May produce symptoms similar to those from ingestion.

Chronic or Delayed Long-Term

This product contains ingredients that are considered to be probable or suspected human carcinogens (See Section 11 - Chronic).

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.

Signs and Symptoms

Overexposure may cause salivation, watery eyes, pinpoint eye pupils, blurred vision, muscle tremors, difficult breathing, excessive sweating, abdominal cramps, nausea, vomiting, diarrhea, weakness, headache.

In severe cases convulsion, unconsciousness and respiratory failure may occur. Signs and symptoms occur rapidly following overexposure to this product.

SECTION 4. FIRST AID MEASURES

Eye

Flush eyes with plenty of water. Seek medical attention if irritation develops or persists.

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Skin	Wash skin thoroughly with soap and water.
Ingestion	Never give anything by mouth to an unconscious or convulsing person. If conscious and not convulsing, drink 1 to 2 glasses of water and induce vomiting by touching the back of the throat with finger. Get medical attention.
Inhalation	Remove victim from contaminated atmosphere. Call a physician.
Note to Physician	<p>Contact a physician immediately in all cases of suspected poisoning. Transport to a physician or hospital immediately and show a copy of this label to the physician. If poisoning is suspected in animals, contact a veterinarian.</p> <p>Treat symptomatically. Overexposure to materials other than this product may have occurred.</p> <p>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. Gastric lavage may be used if this product has been swallowed. Poisoning may occur rapidly after ingestion and prompt removal of stomach contents is indicated.</p> <p>Specific treatment consists of parenteral atropine sulfate. Caution should be maintained to prevent overatropinization. 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 overexposure is to be expected within 24 hours.</p> <p>Narcotics and other sedative should not be used. Further, drugs like 2-PAM (pyridine-2-aldoxime methiodide) are NOT recommended.</p> <p>To aid in confirmation of a diagnosis, urine samples should be obtained within 24 hours of exposure and immediately frozen. Analysis will be arranged by Bayer.</p>

SECTION 5. FIRE FIGHTING MEASURES

Flash Point	Not applicable
Fire and Explosion Hazards	Like all organic and most dry chemicals, as a powder or dust, this product (when mixed with air in critical proportions and in the presence of an ignition source) may present an explosion hazard.
Suitable Extinguishing Media	Small Fires:, carbon dioxide (CO2), dry chemical

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Large Fires:, 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 gear for the situation. See Personal Protection information in Section 8.

Cleanup and Disposal of Spill: Shovel up into an appropriate closed container (see Section 7: Handling and Storage). Clean up residual material by washing area with water. Decontaminate tools and equipment following cleanup. Avoid creation of dusty conditions.

Land Spill or Leaks

Containment of Spill: Follow procedure under Cleanup and Disposal of Spill.

Environmental and Regulatory Reporting: If spilled on the ground, the affected area should be scraped clean and placed in an appropriate container for disposal. Runoff from fire control or dilution water may cause pollution. Prevent material from entering public sewer system or any waterway. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

SECTION 7. HANDLING AND STORAGE

Handling Procedures

Avoid direct or prolonged contact with skin and eyes. Avoid breathing dusts. Do not ingest.

Storing Procedures

Store in original container. Keep in a dry, cool place. Keep out of reach of children and domestic animals.

Work/Hygienic Procedures

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.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this products concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining Personal Protective

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Equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Min/Max Storage Temperatures 0 °C / 38 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls When handlers used closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [(40 CFR 170.240(d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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 Applicators and other handlers must wear: Long-sleeved shirt and long pants waterproof gloves shoes plus socks Chemical resistant headgear for overhead exposure

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

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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 air supply unit or use a self-contained breathing apparatus unit.

General Protection

These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations.

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

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
CALCIUM SILICATE	1344-95-2	ACGIH	TWA	10 mg/m3
		Remarks		The value is for particulate matter containing no asbestos and <1% crystalline silica.
		NIOSH	REL	5 mg/m3
		Form of Exposure	Respirable.	
		NIOSH	REL	10 mg/m3
		Form of Exposure	Total	
		OSHA Z1	PEL	5 mg/m3
		Form of Exposure	Respirable fraction.	
		OSHA Z1	PEL	15 mg/m3
		Form of Exposure	Total dust.	
		OSHA Z1A	TWA	5 mg/m3
		Form of Exposure	Respirable fraction.	
		OSHA Z1A	TWA	15 mg/m3
Form of Exposure	Total dust.			
US CA OEL	TWA PEL	5 mg/m3		
Form of Exposure	Respirable fraction.			
US CA OEL	TWA PEL	10 mg/m3		

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QUARTZ	14808-60-7	Form of Exposure	Total dust.	
		NIOSH REL		0.05 mg/m3
		Form of Exposure	Respirable dust.	
		OSHA Z1A TWA		0.1 mg/m3
		Form of Exposure	Respirable dust.	
DIATOMACEOUS EARTH	61790-53-2	US CA OEL TWA PEL		0.1 mg/m3
		Form of Exposure	Respirable dust.	
		US CA OEL TWA PEL		0.3 mg/m3
		Form of Exposure	Total dust.	
		ACGIH TWA		0.05 mg/m3
		OSHA Z1A TWA		6 mg/m3
		US CA OEL TWA PEL		3 mg/m3
		Form of Exposure	Respirable dust.	
		US CA OEL TWA PEL		6 mg/m3
		Form of Exposure	Total dust.	
US CA OEL TWA PEL		6 mg/m3		
ACGIH TWA		10 mg/m3		
Remarks	The value is for particulate matter containing no asbestos and <1% crystalline silica.			
ACGIH TWA		3 mg/m3		
Remarks	The value is for particulate matter containing no asbestos and <1% crystalline silica.			

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	off-white to pale yellow
Physical State	solid powder
Odor	phenolic
pH	4 - 6.5 at 10 wt/wt%.
Vapor Pressure	Not available
Vapor Density (air = 1)	Not available
Specific Gravity	Not Available
Boiling Point	Not available
Melting/Freezing Point	Not available
Solubility (in water)	dispersible

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Molecular Weight 201.2 g/mol

Decomposition Temperature 140 °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
extreme humidity
moisture

Incompatibility strong acids
bases

Hazardous Products of Decomposition Decomposition Type: thermal
oxides of nitrogen
carbon oxides
methyl isocyanate
(trace; no adverse effects expected)

Hazardous Polymerization (Conditions to avoid) not applicable

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity Rat: LD50: 281 mg/kg

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

Acute Inhalation Toxicity No test data found for product.

Acute Respiratory Irritation:
No test data found for product.

Skin Irritation Rabbit: Minimally Irritating

Eye Irritation Rabbit: Slightly irritating.

Chronic Toxicity Carbaryl has been shown to cause tumors in laboratory animals in lifetime

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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
CALCIUM SILICATE	1344-95-2	Group A4
QUARTZ	14808-60-7	Group A2

NTP

QUARTZ	14808-60-7	
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IARC

CARBARYL, (1-NAPHTHYL N-METHYLCARBAMATE)	63-25-2	3
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OSHA

None

SECTION 12. ECOLOGICAL INFORMATION

Acute and Prolonged Toxicity to Fish

The following data is based on the technical grade active ingredient(s) (TGA).
Rainbow trout
LC50: 1950 ug/l
Exposure Time: 96 h

The following data is based on the technical grade active ingredient(s) (TGA).
Bluegill sunfish
LC50: 6760 ug/l
Exposure Time: 96 h

Toxicity Other Non Mammal Terr. Species

The following data is based on the technical grade active ingredient(s) (TGA).
Mallard duck
LC50: > 5,000 mg/kg
Exposure Time: 8 d
Dietary concentrations.

The following data is based on the technical grade active ingredient(s) (TGA).
Bobwhite quail
LC50: > 5,000 mg/kg
Exposure Time: 8 d
Dietary concentrations.

Environmental Precautions

This product is toxic to aquatic and estuarine invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below mean high water mark. Discharge for rice fields may kill aquatic and estuarine invertebrates. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning of equipment or disposal of equipment wastewaters. Do not contaminate water when disposing of

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equipment washwaters.

BEE CAUTION: MAY KILL HONEYBEES IN SUBSTANTIAL NUMBERS.

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

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.

Pesticide Disposal: Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

EPA Hazardous Waste - Yes

Container Disposal

Do not reuse outer bag. Dispose of outer bag in the trash, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

RCRA Classification

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

US. EPA Resource Conservation and Recovery Act (RCRA) U List of Hazardous Wastes (40 CFR 261.33(f) and 40 CFR 302 [CERCLA]): U279

SECTION 14. TRANSPORT INFORMATION

Transportation Status:

The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

US Department of Transportation

Shipping Name: NOT REGULATED

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SECTION 15. REGULATORY INFORMATION

US Federal

EPA Registration No. 432-1226

TSCA list

CARBARYL, (1-NAPHTHYL N-METHYLCARBAMATE) 63-25-2
CALCIUM SILICATE 1344-95-2
QUARTZ 14808-60-7
DIATOMACEOUS EARTH 61790-53-2

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%

US States Regulatory

CA Prop65

This product contains a chemical known to the state of California to cause cancer. QUARTZ 14808-60-7

US State right-to-know ingredients

CARBARYL, (1-NAPHTHYL N-METHYLCARBAMATE) 63-25-2 CA, CT, IL, MA, MN, NJ, PA, RI
CALCIUM SILICATE 1344-95-2 IL, MN, PA, RI
QUARTZ 14808-60-7 IL, MA, MN, PA
DIATOMACEOUS EARTH 61790-53-2 IL

Canadian Regulations

Canadian Registrat. No.

Canadian Domestic Substance List

CALCIUM SILICATE 1344-95-2
QUARTZ 14808-60-7

Environmental

CERCLA

CARBARYL, (1-NAPHTHYL N-METHYLCARBAMATE) 63-25-2 100 lbs

Clean Water Section 307 Priority Pollutants

None

Safe Drinking Water Act Maximum Contaminant Levels

None

International Regulations

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EU Classification

None

European Inventory of Existing Commercial Substances (EINECS)

CARBARYL, (1-NAPHTHYL N-METHYLCARBAMATE)	63-25-2
CALCIUM SILICATE	1344-95-2
QUARTZ	14808-60-7

SECTION 16. OTHER INFORMATION

	Health	Flammability	Reactivity	Others
HMIS	2	1	1	
NFPA	3	1	1	

Reason for Revisions: Company name change.

Print Date: 02/05/2003

Supersedes MSDS, which is older than: 02/05/2003

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