



Material Safety Data Sheet

SEVIN® BRAND XLR PLUS CARBARYL INSECTICIDE

MSDS Number: 102000001927
 MSDS Version 2.1
 Revision Date: 01/17/2008

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name SEVIN® BRAND XLR PLUS CARBARYL INSECTICIDE
MSDS Number 102000001927
EPA Registration No. 264-333

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

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
 For Product Information call: 1-866-99BAYER (1-866-992-2937)

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Carbaryl	63-25-2	44.10
1,2-Propanediol	57-55-6	

SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview Caution! Harmful if swallowed, inhaled or absorbed through the skin. Harmful if gets in eyes. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.

Physical State liquid suspension

Odor weak characteristic

Appearance white to beige

Routes of Exposure Ingestion, Inhalation, Eye contact, Skin Absorption

Immediate Effects

Eye Do not get in eyes. May cause redness, irritation, tearing.

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



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Ingestion	Harmful if swallowed. This product causes reversible cholinesterase inhibition. Repeated overexposure may cause more severe cholinesterase inhibition with more pronounced 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 vapours or spray mist. May produce symptoms similar to those from ingestion.
Chronic or Delayed Long-Term	This product is not listed by NTP, IARC or regulated as a carcinogen by OSHA. This product or its components may have target organ effects.
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.
Potential Environmental Effect	Highly toxic to bees. Extremely toxic to aquatic and estuarine invertebrates.

SECTION 4. FIRST AID MEASURES

General	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Skin	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.
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 physician or poison control center immediately.
Notes to Physician Signs and Symptoms	Temporary blurred vision due to contraction of the pupils (miosis) following contact with the eyes. bradycardia low blood pressure Salivation bronchial hypersecretion



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Vomiting
Diarrhoea
sweating
muscular fasciculation
spasm
breathing difficulties
respiratory paralysis
somnia
Coma
respiratory failure
hypothermia
Convulsions
Nausea

Hazards This product contains a cholinesterase inhibitor carbamate.

Treatment The product inhibits cholinesterase resulting in stimulation of the central nervous system, the parasympathetic nervous system, and the somatic motor nerves. If symptoms of carbamate poisoning are present, the administration of atropine sulfate is indicated.

ANTIDOTE: Administer atropine sulfate in large therapeutic doses. Repeat as necessary to the point of tolerance. In mild cases, start treatment by giving 1-2 mg of atropine intravenously every 15 minutes until signs of atropinization appear (dry mouth, flushing and dilated pupils if pupils were originally pinpoint). In severe cases 2 to 4 mg should be injected 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.

Do not use oximes such as 2-PAM unless organophosphate intoxication is suspected. Do not give morphine. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 24-48 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

Flash point > 100 °C / 212 °F
No flash point - Determination conducted up to the boiling point.

Fire and Explosion Hazards In the event of fire the following can be released:
Carbon monoxide (CO)
Nitrogen oxides (NOx)

Suitable Extinguishing Media Water spray, Foam, Carbon dioxide (CO2), Dry powder



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Fire Fighting Instructions

Do not allow run-off from fire fighting to enter drains or water courses.
Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods for Cleaning Up

Recover the product by pumping, suction or absorption using a dry and inert absorbent clay. Collect and transfer the product into a properly labelled and tightly closed container. When picked up, treat product as prescribed in Ch. 13. "Disposal considerations".

Additional Advice

Use personal protective equipment. Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8.

SECTION 7. HANDLING AND STORAGE

Handling Procedures

Use only in area provided with appropriate exhaust ventilation. Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

Storing Procedures

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Keep away from food, drink and animal feedingstuffs.

Work/Hygienic Procedures

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Min/Max Storage Temperatures

Recommended maximum transport/storage temperature: 38 °C / 100 °F

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection

Cholinesterase activity of the worker should be supervised.
Follow all label instructions. Train employees in safe use of the product.
Follow manufacturer's instructions for cleaning/maintaining PPE. If no such



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instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

- Eye/Face Protection** Tightly fitting safety goggles
- Hand Protection** Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber or Viton)
- Body Protection** Wear long-sleeved shirt and long pants and shoes plus socks.
Chemical resistant headgear for overhead exposure
- Respiratory Protection** When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Exposure Limits

Carbaryl	63-25-2	ACGIH	TWA	5 mg/m3
		ACGIH NIC	TWA	0.5 mg/m3
		Form of exposure		Inhalable fraction and vapor
		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
		TX ESL	ST ESL	50 ug/m3
		TX ESL	AN ESL	5 ug/m3
		1,2-Propanediol	57-55-6	WEEL
		Form of exposure	Aerosol.	

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** white to beige
- Physical State** liquid suspension
- Odor** weak characteristic
- pH** 4.0 - 5.0 (10 %) at 20 °C
- Density** approx. 1.07 - 1.10 g/cm³ at 20 °C
- Melting / Freezing Point** -4 °C / 25 °F
- Water solubility** miscible
- Decomposition Temperature** 175 - 190 °C
Exothermic decomposition.
- Viscosity** 500 - 700 mPa.s at 25 °C



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SECTION 10. STABILITY AND REACTIVITY

Incompatibility	Acids Bases
Hazardous Reactions	No hazardous reactions when stored and handled according to prescribed instructions.

SECTION 11. TOXICOLOGICAL INFORMATION

The non-acute information pertains to the technical-grade active ingredient, carbaryl.

Acute Oral Toxicity	rat: LD50: 699 mg/kg
Acute Dermal Toxicity	rat: LD50: > 4,000 mg/kg
Acute Inhalation Toxicity	rat: LC50: > 3.8 mg/l Exposure time: 4 h (actual)
	rat: LC50: 15.2 mg/l Exposure time: 1 h Extrapolated from the 4 hr LC50. (actual)
Skin Irritation	rabbit: No skin irritation.
Eye Irritation	rabbit: Slight irritation.
Sensitization	guinea pig: Non-sensitizing.
Chronic Toxicity	Carbaryl causes reversible cholinesterase inhibition. Changes in urinary bladder, thyroid, kidney and liver were observed in chronic studies in rats.

Assessment Carcinogenicity

Carbaryl has been shown to cause tumors in laboratory animals in lifetime feeding studies.

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

Reproductive & Developmental Toxicity	REPRODUCTION: Carbaryl was not a reproductive toxicant in a two-generation study in rats.
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DEVELOPMENTAL: Carbaryl was not a primary developmental toxicant in rats and rabbits. Developmental effects were observed in both species but were considered secondary to maternal toxicity.

Neurotoxicity Carbaryl caused transient neurobehavioral effects (e.g., tremors) related to cholinergic toxicity without correlating neuropathological changes in acute and subchronic neurotoxicity studies in rats. Carbaryl did not cause developmental neurotoxic effects in offspring in a one-generation developmental neurotoxicity study in rats.

Mutagenicity Carbaryl poses only a slight mutagenic risk based on the overall weight of evidence in a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions Do not apply when weather conditions favor runoff or drift. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not allow to get into surface water, drains and ground water.

Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Do not contaminate water, food, or feed by disposal. Dispose in accordance with all local, state/provincial and federal regulations. It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines.

Container Disposal Do not re-use empty containers. Triple rinse containers. Puncture container to avoid re-use. Consult state and local regulations regarding the proper disposal of container.

RCRA Classification The RCRA Classifications may be on the individual component(s) and not necessarily on the product as a whole.

63-25-2 Carbaryl
US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261): U279

63-25-2 Carbaryl
US. EPA Resource Conservation and Recovery Act (RCRA) U List of Hazardous Wastes (40 CFR 261.33(f) and 40 CFR 302 [CERCLA]): U279



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SECTION 14. TRANSPORT INFORMATION

TDG CLASSIFICATION:

Not regulated for Road and Rail

DOT CLASSIFICATION:

NON BULK:

Not Regulated for Domestic Surface Transportation

BULK:

Environmentally Hazardous Substances, Liquid, N.O.S. (Carbaryl) // 9 // UN3082 // PG III // RQ(Carbaryl)

Carbaryl RQ is 100 lbs. It takes 227 lbs or 25 gallons of product per package to meet RQ

Carbaryl is a Marine Pollutant

FREIGHT CLASSIFICATION:

Insecticides or Fungicides, N.O.I., other than poison

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 264-333

US Federal Regulations

TSCA list

Carbaryl	63-25-2
1,2-Propanediol	57-55-6

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

Carbaryl	63-25-2	1.0%
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US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

Carbaryl	63-25-2	CA, CT, IL, MA, MN, NJ, PA, RI
1,2-Propanediol	57-55-6	MN, RI

Canadian Regulations

Canadian Domestic Substance List

1,2-Propanediol	57-55-6
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Environmental



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CERCLA

Carbaryl

63-25-2

100 lbs

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)

1,2-Propanediol

57-55-6

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 2 Reactivity - 1 Others - none

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason to Revise: Updated Section 3: HAZARDS IDENTIFICATION; Updated Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION; Updated Section 11: TOXICOLOGICAL INFORMATION.

Revision Date: 01/17/2008

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