



Material Safety Data Sheet

SEVIN® XLR CARBARYL INSECTICIDE LIQUID SUSPENSION

MSDS Number: 102000026141
MSDS Version 1.1
Revision Date: 03/29/2012
Print Date: 07/17/2012

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name SEVIN® XLR CARBARYL INSECTICIDE LIQUID SUSPENSION
MSDS Number 102000026141
Product code (UVP) 80201680
PCP Registration No. 27876
Product Use Insecticide

Bayer CropScience Inc
#200, 160 Quarry Park Blvd, SE
Calgary, Alberta T2C 3G3
Canada

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
For Product Information call: 1-888-283-6847

SECTION 2. HAZARDS IDENTIFICATION

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

Emergency Overview Warning! Harmful by inhalation and if swallowed. Avoid breathing spray mist. Avoid contact with skin and clothing. Do not take internally.

Physical State liquid suspension

Odor weak characteristic

Appearance white to beige

Exposure routes Ingestion, Inhalation, Eye contact, Skin Absorption

Immediate Effects

Eye May cause redness, irritation, tearing. Avoid contact with eyes.

skin Harmful if absorbed through skin. Avoid contact with skin and clothing.

Ingestion Harmful if swallowed. This product causes reversible cholinesterase inhibition without long term effects. 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. Do not take internally.

Inhalation Harmful if inhaled. Avoid breathing spray mist. May produce symptoms similar to those from ingestion.



**Material Safety Data Sheet**

**SEVIN® XLR CARBARYL INSECTICIDE LIQUID  
SUSPENSION**

MSDS Number: 102000026141  
MSDS Version 1.1

**Chronic or Delayed Long-Term** This product or its components may have target organ effects. 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.

**Potential Environmental Effect** Highly toxic to bees. Extremely toxic to aquatic and estuarine invertebrates.

**SECTION 3. 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	4.70
Naphthalene and alkyl naphthalene sulphonic acids formaldehyde condensate, sodium salt	68425-94-5	1.20

**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



**Material Safety Data Sheet**

**SEVIN® XLR CARBARYL INSECTICIDE LIQUID  
SUSPENSION**

MSDS Number: 102000026141  
MSDS Version 1.1

Salivation  
Bronchial hypersecretion  
Vomiting  
Diarrhoea  
Sweating  
Muscular fasciculation  
Spasm  
Breathing difficulties  
Respiratory paralysis  
Somnolence  
Coma  
Respiratory failure  
Hypothermia  
Convulsions  
Nausea

**Hazards** This product is a cholinesterase inhibitor carbamate.

**Treatment** Monitor: respiratory, cardiac and central nervous system. Monitor: blood picture. Monitor: red blood cell and plasma cholinesterase. ECG - monitoring (Electrocardiogram). Oxygen or artificial respiration if needed. Keep respiratory tract clear. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. The following antidote is generally accepted: atropine. Before antidote is administered, either clear symptoms of poisoning have to be present or the cholinesterase activity is inhibited to below 30% of normal. In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens. Contraindications: oximes (pralidoxime, obidoxime).

Do not use oximes such as 2-PAM unless organophosphate intoxication is suspected. 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. Contraindications: derivatives of morphine.

**SECTION 5. FIRE FIGHTING MEASURES**

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

**Autoignition temperature** no data available

**Lower Flammability Limit** no data available

**Upper Flammability Limit** no data available



**Material Safety Data Sheet**

**SEVIN® XLR CARBARYL INSECTICIDE LIQUID  
SUSPENSION**

MSDS Number: 102000026141  
MSDS Version 1.1

<b>Explosiveness</b>	no data available
<b>Fire and Explosion Hazards</b>	In the event of fire the following may be released: Carbon monoxide (CO) Nitrogen oxides (NOx)
<b>Suitable extinguishing media</b>	Water spray, Foam, Carbon dioxide (CO2), Dry powder
<b>Fire Fighting Instructions</b>	Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. 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**

<b>Personal precautions</b>	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.
<b>Methods for cleaning up</b>	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. Clean contaminated floors and objects thoroughly, observing environmental regulations.
<b>Additional advice</b>	Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

**SECTION 7. HANDLING AND STORAGE**

<b>Handling procedures</b>	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.
<b>Storing Procedures</b>	Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Protect from freezing.  Keep away from food, drink and animal feedingstuffs.
<b>Work/Hygienic Procedures</b>	Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.



**Material Safety Data Sheet**

**SEVIN® XLR CARBARYL INSECTICIDE LIQUID  
SUSPENSION**

MSDS Number: 102000026141  
MSDS Version 1.1

Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

- General Protection** Follow all label instructions. Train employees in safe use of the product.  
  
Follow manufacturer's instructions for cleaning/maintaining PPE. If no such 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	OEL (QUE)	TWA	5 mg/m3
		CAD AB OEL	TWA	5 mg/m3
		CAD BC OEL	TWA	5 mg/m3
		CAD ON OEL	TWAEV	5 mg/m3
		OES BCS*	TWA	5 mg/m3
		OEL (QUE)	TWA	5 mg/m3
		CAD BC OEL	TWA	0.5 mg/m3
		CAD SK OEL	8 HR ACL	5 mg/m3
		CAD SK OEL	15 MIN ACL	10 mg/m3
				TWA
1,2-Propanediol	57-55-6	CAD ON OEL	TWAEV	50 ppm
		CAD ON OEL	TWAEV	10 mg/m3

\*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Appearance** white to beige
- Physical State** liquid suspension



**Material Safety Data Sheet**

**SEVIN® XLR CARBARYL INSECTICIDE LIQUID  
SUSPENSION**

MSDS Number: 102000026141  
MSDS Version 1.1

<b>Odor</b>	weak characteristic
<b>pH</b>	3.0 - 5.0 (1 %) at 20 °C
<b>Vapor Pressure</b>	no data available
<b>Vapor Density (Air = 1)</b>	no data available
<b>Density</b>	1.09 g/cm <sup>3</sup> at 20 °C
<b>Evaporation rate</b>	no data available
<b>Boiling Point</b>	no data available
<b>Melting / Freezing Point</b>	-4 °C / 25 °F
<b>Water solubility</b>	dispersible
<b>Minimum Ignition Energy</b>	no data available
<b>Decomposition temperature</b>	175 - 190 °C Exothermic decomposition.
<b>Partition coefficient: n-octanol/water</b>	no data available
<b>Viscosity</b>	<= 850 mPa.s at 25 °C

**SECTION 10. STABILITY AND REACTIVITY**

<b>Conditions to avoid</b>	Extremes of temperature and direct sunlight.
<b>Incompatibility</b>	Acids Bases
<b>Hazardous Decomposition Products</b>	Thermal decomposition can lead to release of: Carbon monoxide Nitrogen oxides (NO <sub>x</sub> )
<b>Hazardous reactions</b>	No hazardous reactions when stored and handled according to prescribed instructions.
<b>Chemical Stability</b>	Stable under normal conditions.



**Material Safety Data Sheet**

**SEVIN® XLR CARBARYL INSECTICIDE LIQUID  
SUSPENSION**

MSDS Number: 102000026141  
MSDS Version 1.1

**SECTION 11. TOXICOLOGICAL INFORMATION**

Only acute toxicity studies have been performed on the formulated product. The non-acute information pertains to the technical-grade active ingredient, carbaryl.

**Acute oral toxicity** male rat: LD50: 867 mg/kg  
female rat: LD50: 575 mg/kg  
male/female combined rat: LD50: 699 mg/kg

**Acute dermal toxicity** rat: LD50: > 4,000 mg/kg

**Acute inhalation toxicity** male/female combined rat: LC50: 3.8 mg/l  
Exposure time: 4 h  
male/female combined rat: LC50: 15.2 mg/l  
Exposure time: 1 h  
Extrapolated from the 4 hr LC50.

**Skin irritation** rabbit: Slight irritation

**Eye irritation** rabbit: Slight irritation

**Sensitisation** guinea pig: Non-sensitizing.  
OECD Test Guideline 406, Buehler test

**Chronic toxicity** Carbaryl caused reversible cholinesterase inhibition without long term effects in animal studies.

**Assessment Carcinogenicity**

Carbaryl caused an increased incidence of tumours in the liver, thyroid, kidney, cardio-vascular system at high dose levels. The mechanism that triggers tumours in rodents is not relevant for the low exposures encountered under normal use conditions.

**ACGIH**  
Carbaryl 63-25-2 Group A4

**NTP**  
None.

**IARC**  
Carbaryl 63-25-2 Overall evaluation: 3

**OSHA**  
None.

**Reproductive toxicity** Carbaryl did not cause reproductive toxicity in a two-generation study in rats.

**Developmental Toxicity** Did not show teratogenic effects in animal experiments.



**Material Safety Data Sheet**

**SEVIN® XLR CARBARYL INSECTICIDE LIQUID  
SUSPENSION**

MSDS Number: 102000026141  
MSDS Version 1.1

Carbaryl was not a primary developmental toxicant in laboratory animals. Developmental effects were observed but were considered secondary to maternal toxicity.

**Mutagenicity**

Carbaryl was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

**SECTION 12. ECOLOGICAL INFORMATION**

**Toxicity to fish**

Rainbow trout (*Oncorhynchus mykiss*)  
LC50: 1.4 mg/l  
Exposure time: 96 h

*Cyprinodon variegatus* (sheepshead minnow)  
LC50: 13.6 mg/l  
Exposure time: 96 h

**Toxicity to aquatic plants**

*Selenastrum capricornutum*  
1.8 mg/l  
Exposure time: 96 h

**Acute Toxicity to Aquatic Invertebrates**

Water flea (*Daphnia magna*)  
EC50: 0.00067 mg/l  
Exposure time: 48 h

*Mysidopsis bahia* (mysid shrimp)  
0.0088 mg/l  
Exposure time: 96 h

**Environmental precautions**

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 apply when weather conditions favor runoff or drift. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. 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 this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.





**Material Safety Data Sheet**

**SEVIN® XLR CARBARYL INSECTICIDE LIQUID  
SUSPENSION**

MSDS Number: 102000026141  
MSDS Version 1.1

**SECTION 13. DISPOSAL CONSIDERATIONS**

**General Disposal Guidance** Do not contaminate water, food, or feed by disposal. Open dumping is prohibited. Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.

**Container Disposal** Do not re-use empty containers. Empty residue into application equipment. Triple rinse containers. Add washings to sprayer at time of filling. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.

**SECTION 14. TRANSPORT INFORMATION**

**TDG**

UN-Number **3082**  
Labels **9**  
Packaging group **III**  
Marine pollutant **Marine pollutant**  
Description of the goods **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CARBARYL)**

**49CFR**

UN-Number **3082**  
Class **9**  
Packaging group **III**  
Marine pollutant **Marine pollutant**  
Description of the goods **ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CARBARYL)**  
RQ **Reportable Quantity is reached with 226 lb of product.**

**IMDG**

UN-Number **3082**  
Class **9**  
Packaging group **III**  
Marine pollutant **YES**  
Description of the goods **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CARBARYL SOLUTION)**

**IATA**

UN-Number **3082**  
Class **9**  
Packaging group **III**  
Environm. Hazardous Mark **YES**  
Description of the goods **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.**



**Material Safety Data Sheet**

**SEVIN® XLR CARBARYL INSECTICIDE LIQUID  
SUSPENSION**

MSDS Number: 102000026141  
MSDS Version 1.1

(CARBARYL SOLUTION )

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

**Further Information** Exempt from regulation when transported by road or rail, in accordance with TDG Regulations 1.45.1.  
This exemption provides that this product does not require dangerous goods shipping documentation or safety marks when transported on land by road or rail.

**Freight Classification:** INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN POISON

**SECTION 15. REGULATORY INFORMATION**

**PCP Registration No.** 27876

**US Federal Regulations**

**TSCA list**

Carbaryl	63-25-2
1,2-Propanediol	57-55-6
Naphthalene and alkyl naphthalene sulphonic acids formaldehyde condensate, sodium salt	68425-94-5

**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%
----------	---------	------

**US States Regulatory Reporting**

**CA Prop65**

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

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

Carbaryl	63-25-2	Male reproductive toxin.
----------	---------	--------------------------

**US State Right-To-Know Ingredients**

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

**Canadian Regulations**

**Canadian Domestic Substance List**

1,2-Propanediol	57-55-6
Naphthalene and alkyl naphthalene sulphonic	68425-94-5



**Material Safety Data Sheet**

**SEVIN® XLR CARBARYL INSECTICIDE LIQUID  
SUSPENSION**

MSDS Number: 102000026141  
MSDS Version 1.1

acids formaldehyde condensate, sodium salt

**Environmental**

**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)**

Carbaryl

63-25-2

**SECTION 16. OTHER INFORMATION**

**NFPA 704 (National Fire Protection Association):**

Health - 1

Flammability - 1

Instability - 1

Others - none

**HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)**

Health - 1

Flammability - 1

Physical Hazard - 1

PPE -

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

Reason for Revision: Reviewed and updated for general editorial purposes. The following sections have been revised: Section 11: Toxicological Information. Section 14: Transport Information.

Prepared by the HSE Department of Bayer CropScience Inc. (306)-721-0310.

Revision Date: 03/29/2012

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.

