

Material Safety Data Sheet

This product is used by
Homeowners and Professionals.
July 2011

GARDENTECH® SEVIN® READY-TO-USE BUG KILLER

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name GARDENTECH® SEVIN® READY-TO-USE BUG KILLER
Product codes S2001, S2002, S2002D
EPA Registration No. 432-1211-71004
Product Use Insecticide

TechPac, LLC.
P.O. Box 24830
Lexington, KY 40524

For MEDICAL EMERGENCY: call 800-420-9347
For TRANSPORTATION or SPILL: call 800-424-9300
For Product Information: call 866-945-5033

SECTION 2. HAZARDS IDENTIFICATION

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

Emergency Overview Caution! Harmful by inhalation and if swallowed. Avoid breathing spray mist.
Avoid contact with skin, eyes and clothing.

Physical State liquid opaque

Odor none

Appearance white

Exposure routes Ingestion, Inhalation, Eye contact, Skin contact

Immediate Effects

Eye May cause eye irritation. Avoid contact with eyes.

Skin May cause slight irritation. Avoid contact with skin and clothing.

Ingestion Harmful if swallowed. Do not take internally.

Inhalation Harmful if inhaled. Avoid breathing spray mist.

Medical Conditions Aggravated by Exposure Any disease, medication or prior exposure which reduces normal cholinesterase activity may increase susceptibility to the toxic effects of the active ingredient.

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

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Carbaryl	63-25-2	0.126

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** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
- Skin** Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. 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.
- 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**

This product causes reversible cholinesterase inhibition without long term effects.
Symptoms of Overexposure
Nausea
Vomiting
Diarrhoea
Abdominal pain
Salivation
Blurred vision
sweating
Respiratory disorder
Convulsions

Treatment

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. Before antidote is administered, either clear symptoms of poisoning have to be present or the cholinesterase activity is inhibited to below 30% of normal. The following antidote is generally accepted: atropine. In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens. Contraindications: oximes (pralidoxime, obidoxime).

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SECTION 5. FIRE FIGHTING MEASURES

Flash point	The product is not flammable.
Autoignition temperature	no data available
Lower Flammability Limit	no data available
Upper Flammability Limit	no data available
Suitable extinguishing media	Carbon dioxide (CO2), Alcohol-resistant foam, Water spray
Fire Fighting Instructions	Keep out of smoke. Fight fire from upwind position. 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	Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations.
Additional advice	Use personal protective equipment.

SECTION 7. HANDLING AND STORAGE

Handling procedures	Use only in area provided with appropriate exhaust ventilation. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.
Storing Procedures	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.

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SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection There are no known hazards associated with this product when used according to the label directions. The following guidelines should be followed.

Avoid inhalation of vapour or mist. Avoid contact with skin and eyes.

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

Do not allow children or pets to enter the treated area until it has dried.

Eye/Face Protection Safety glasses with side-shields

Hand protection Chemical resistant nitrile rubber gloves

Body Protection Wear long-sleeved shirt and long pants and shoes plus socks.

Respiratory protection No personal respiratory protective equipment normally required.

Exposure Limits

Carbaryl	63-25-2	ACGIH	TWA	5 mg/m3
		ACGIH NIC	TWA	0.5 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
		TX ESL	ST ESL	50 ug/m3
		TX ESL	AN ESL	5 ug/m3
		OES BCS*	TWA	5 mg/m3
		ACGIH	TWA	0.5 mg/m3
		TN OEL	TWA	5 mg/m3

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance white

Physical State liquid opaque

Odor none

pH 3 - 4 (100 %)

Vapor Pressure no data available

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Vapor Density (Air = 1)	no data available
Density	ca. 1.00 g/cm ³ at 20 °C
Boiling Point	no data available
Melting / Freezing Point	no data available
Water solubility	soluble
Decomposition temperature	140 °C
Partition coefficient: n-octanol/water	no data available
Viscosity	50 - 200 mPa.s

SECTION 10. STABILITY AND REACTIVITY

Incompatibility	Bases Strong acids
Hazardous Decomposition Products	nitrogen oxides (NOx) Sulphur oxides Carbon oxides Methyl isocyanate
Chemical Stability	Stable under recommended storage conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity studies have not been performed on this product as formulated. The acute toxicity data provided has been bridged from a SEVIN dust formulation containing a higher percentage of the active ingredient, carbaryl. The long-term information pertains to the technical-grade active ingredient.

Acute oral toxicity	rat: LD50: > 1,500 mg/kg
Acute dermal toxicity	rabbit: LD50: > 2,000 mg/kg
Eye irritation	rabbit: Mild eye irritation.
Chronic toxicity	Reversible cholinesterase inhibition occurred in chronic toxicity studies in rats and dogs. The principal organs affected in rats from long-term exposure to high-doses of carbaryl included the urinary bladder, thyroid, kidneys and liver.

Assessment Carcinogenicity

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

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ACGIH

Carbaryl

63-25-2

Group A4

NTP

None.

IARC

Carbaryl

63-25-2

Overall evaluation: 3

OSHA

None.

Reproductive toxicity

REPRODUCTION: Carbaryl was not a reproductive toxicant in a two-generation study in rats.

DEVELOPMENTAL TOXICITY: 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.

Assessment 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

A battery of in vitro and in vivo mutagenicity studies have been conducted on carbaryl. Collectively, these studies indicate that carbaryl poses only a slight mutagenic risk.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity to fish

Oncorhynchus mykiss (rainbow trout)
LC50: 1,950 µg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient.

Lepomis macrochirus (Bluegill sunfish)
LC50: 6,769 µg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient.

Toxicity to other organisms

Anas platyrhynchos (Mallard duck)
LC50: > 5,000 mg/kg
Exposure time: 8 d
The value mentioned relates to the active ingredient.

Colinus virginianus (Bobwhite quail)
LC50: > 5,000 mg/kg
Exposure time: 8 d
The value mentioned relates to the active ingredient.

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Environmental precautions Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not allow to get into surface water, drains and ground water. 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 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 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. Never place unused product down any indoor or outdoor drain.

Container Disposal Do not re-use empty containers. Place empty container in trash.

RCRA Information Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14. TRANSPORT INFORMATION

According to national and international transport regulations this material is not classified as dangerous goods / hazardous material.

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 432-1211-71004

US Federal Regulations

TSCA list

Carbaryl 63-25-2

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.

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Carbaryl 63-25-2 Male reproductive toxin.

US State Right-To-Know Ingredients

Carbaryl 63-25-2 CA, CT, IL, MN, NJ, RI

Canadian Regulations

Canadian Domestic Substance List

None.

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 - 0 Instability - 1 Others - none

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

Health - 1 Flammability - 0 Physical Hazard - 0 PPE -

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

This product contained herein is offered only as a guide to the handling of this specific material. Since such information does not relate to use of the material with any other material or in any process, any person using this information must determine for himself its suitability for any particular application. The buyer and user assumes all risk and liability of use, storage and/or handling of this product not in accordance with the terms of the product label.