

Material Safety Data Sheet

This product is used by
Homeowners and Professionals
July 2011

GARDENTECH® SEVIN®-READY-TO-USE 5% DUST

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name GARDENTECH® SEVIN®-READY-TO-USE 5% DUST
Product codes S7000, S7000D, S7007, S7007D, S7008, S7009, S7013, S7013D, S7017, S7017D, S7023, S7023D, S7115
EPA Registration No. 432-1209-71004
Product Use Insecticide

TechPac, LLC.
P.O. Box 24830
Lexington, KY 40524
For MEDICAL EMERGENCY: call 800-420-9347
For TRANSPORTATION or SPILL: call 800-420-9300
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 if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Avoid contact with skin, eyes and clothing. Avoid breathing dust.

Physical State powder

Odor slight

Appearance light tan to brown

Exposure routes Ingestion, Inhalation, Eye contact, Skin Absorption

Immediate Effects

Eye Causes eye irritation. Avoid contact with eyes.

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

Chronic or Delayed Long-Term

This product or its components may have target organ effects. This product or its components may have long term (chronic) health effects.

This product is not listed as a carcinogen by ACGIH, NTP, IARC or OSHA. However, it may contain crystalline silica (quartz), a substance which has been listed as a carcinogen by ACGIH, NTP and IARC. Crystalline silica is a naturally-occurring mineral component of many sands and clays. Although the carcinogenic potential of crystalline silica in humans is controversial, it must be considered if it is inhaled under excessive exposure conditions. The respirable portion of the silica that may be contained in this product, however, is small, such that inhalation exposure during anticipated conditions of use is minimal.

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

Extremely toxic to aquatic and estuarine invertebrates. Highly toxic to bees.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Carbaryl	63-25-2	5.00
Quartz (Silica, Crystalline) Crystalline quartz (respirable)	14808-60-7	50.80
Synthetic amorphous silica	112926-00-8	2.00

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
 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	not applicable
Autoignition temperature	no data available
Lower Flammability Limit	no data available
Upper Flammability Limit	no data available
Explosiveness	no data available
Fire and Explosion Hazards	Dangerous gases are evolved in the event of a fire.

Suitable extinguishing media	Water spray, Foam, Dry chemical, Carbon dioxide (CO ₂)
Fire Fighting Instructions	<p>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. Whenever possible, contain fire-fighting water by diking area with sand or earth.</p> <p>Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.</p>
Dust Explosion Class	no data available

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	Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations. Contaminated soil may have to be removed and disposed.
Additional advice	Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

SECTION 7. HANDLING AND STORAGE

Handling procedures	Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation. Handle and open container in a manner as to prevent spillage.
Storing Procedures	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.
Work/Hygienic Procedures	<p>Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.</p> <p>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.</p>

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection	<p>Follow all label instructions. Train employees in safe use of the product.</p> <p>Follow manufacturer's instructions for cleaning/maintaining PPE. If no such</p>
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instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

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

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.

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.

Exposure Limits

Carbaryl	63-25-2	ACGIH	TWA	5 mg/m ³
		ACGIH NIC	TWA	0.5 mg/m ³
		NIOSH	REL	5 mg/m ³
		OSHA Z1	PEL	5 mg/m ³
		OSHA Z1A	TWA	5 mg/m ³
		US CA OEL	TWA PEL	5 mg/m ³
		TX ESL	ST ESL	50 ug/m ³
		TX ESL	AN ESL	5 ug/m ³
		OES BCS*	TWA	5 mg/m ³
		ACGIH	TWA	0.5 mg/m ³
		TN OEL	TWA	5 mg/m ³
Quartz (Silica, Crystalline)	14808-60-7	ACGIH	TWA	0.025 mg/m ³
		NIOSH	REL	0.05 mg/m ³
		OSHA Z1A	TWA	0.1 mg/m ³
		Z3	TWA	2.4 millions of particles per cubic foot of air
		Z3	TWA	0.1 mg/m ³
		Z3	TWA	0.3 mg/m ³
		US CA OEL	TWA PEL	0.1 mg/m ³
		US CA OEL	TWA PEL	0.3 mg/m ³
		TX ESL	ST ESL	1 ug/m ³
		TX ESL	ST ESL	1 ug/m ³
		TX ESL	AN ESL	0.1 ug/m ³
		TX ESL	AN ESL	0.1 ug/m ³
		TX ESL	ST ESL	10 ug/m ³
		TX ESL	AN ESL	1 ug/m ³
		Mica (less than 1 % quartz)	12001-26-2	ACGIH
ACGIH	TWA			3 mg/m ³
NIOSH	REL			3 mg/m ³
OSHA Z1A	TWA			3 mg/m ³
Z3	TWA			20 millions of particles per cubic foot of air
US CA OEL	TWA PEL			3 mg/m ³

Kaolin	1332-58-7	TX ESL	ST ESL	30 ug/m3
		TX ESL	AN ESL	3 ug/m3
			TWA	3 mg/m3
		ACGIH	TWA	2 mg/m3
		NIOSH	REL	5 mg/m3
		NIOSH	REL	10 mg/m3
		US CA OEL	TWA PEL	2 mg/m3
		TX ESL	ST ESL	20 ug/m3
		TX ESL	AN ESL	2 ug/m3
		TX ESL	ST ESL	20 ug/m3
		TX ESL	AN ESL	2 ug/m3
			TWA	10 mg/m3
Synthetic amorphous silica	112926-00-8	OSHA Z1A	TWA	5 mg/m3
			TWA	6 mg/m3
		TX ESL	ST ESL	40 ug/m3
		TX ESL	AN ESL	4 ug/m3
			TWA	6 mg/m3

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	light tan to brown
Physical State	powder
Odor	slight
pH	9.0 - 9.5 (10 %) at 25 °C aqueous suspension
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Bulk density	47 - 57 lb/ft ³
Evaporation rate	no data available
Melting / Freezing Point	no data available
Water solubility	insoluble
Minimum Ignition Energy	no data available
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	no data available

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	Elevated temperatures Heat, flames and sparks.
Incompatibility	Strong acids Bases
Hazardous Decomposition Products	Thermal decomposition can lead to release of: nitrogen oxides (NO _x) Carbon oxides Methyl isocyanate (trace; no adverse effects expected)
Hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Chemical Stability	Stable under recommended storage conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity data have been bridged from a similar granular formulation containing a slightly higher percentage of the active ingredient, carbaryl. The non-acute information pertains to the technical-grade active ingredient.

Acute oral toxicity	male rat: LD50: 3,310 mg/kg female rat: LD50: 2,330 mg/kg male/female combined rat: LD50: 3,240 mg/kg
Acute dermal toxicity	rabbit: LD50: > 2,000 mg/kg
Acute inhalation toxicity	rat: LC50: > 4.9 mg/l Exposure time: 4 h Determined in the form of dust. rat: LC50: > 19.6 mg/l Exposure time: 1 h Determined in the form of dust. Extrapolated from the 4 hr LC50.
Skin irritation	rabbit: No skin irritation
Eye irritation	rabbit: Mild eye irritation.
Sensitisation	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

Carbaryl Quartz (Silica, Crystalline)	63-25-2 14808-60-7	Group A4 Group A2
NTP Crystalline quartz (respirable)		
IARC Carbaryl Quartz (Silica, Crystalline)	63-25-2 14808-60-7	Overall evaluation: 3 Overall evaluation: 1
OSHA None.		

Reproductive toxicity	<p>REPRODUCTION: Carbaryl was not a reproductive toxicant in a two-generation study in rats.</p> <p>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.</p>
Assessment neurotoxicity	Carbaryl caused tradevent 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	<p>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 contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Apply this product as specified on the label.</p> <p>Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.</p>
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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	Completely empty container into application equipment, then dispose of empty container in a sanitary landfill, by incineration or by other procedures approved by state/provincial and local authorities. If burned, stay out of smoke. Follow advice on product label and/or leaflet.
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

49CFR

UN-Number	3077
Class	9
Packaging group	III
Marine pollutant	Marine pollutant
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (CARBARYL)
RQ	Reportable Quantity is reached with 2,000 lb of product.

IMDG

UN-Number	3077
Class	9
Packaging group	III
Marine pollutant	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CARBARYL MIXTURE)

IATA

UN-Number	3077
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CARBARYL MIXTURE)

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.

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 432-1209-71004

US Federal Regulations

TSCA list

Carbaryl	63-25-2
Quartz (Silica, Crystalline)	14808-60-7

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 contains a chemical known to the State of California to cause cancer.
Crystalline quartz (respirable)

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
Quartz (Silica, Crystalline) 14808-60-7 IL, MA

Canadian Regulations

Canadian Domestic Substance List

Quartz (Silica, Crystalline) 14808-60-7
Synthetic amorphous silica 112926-00-8

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
Quartz (Silica, Crystalline) 14808-60-7

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

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