SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name: GARDENTECH® SEVIN® CONCENTRATE BUG KILLER
EPA Registration No.: 264-334-71004
Product codes: S7100, S7101, S7101D, S7103
SAP Numbers: 100064376, 100064377, 100047721, 100047722

TechPac, LLC.
2030 Powers Ferry Road – Suite 370
Atlanta, GA 30339

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 if swallowed, inhaled or absorbed through the skin. Moderate eye irritation. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapour or mist. Wash thoroughly and put on clean clothing.

Physical State
liquid

Odor
weak

Appearance
white to light beige

Exposure routes
Ingestion, Inhalation, Skin Absorption, Eye contact

Immediate Effects
Eye
Causes redness, irritation, tearing. Moderate 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. 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 inhalation of vapour or mist.
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.

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

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Average % by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbaryl</td>
<td>63-25-2</td>
<td>22.50</td>
</tr>
<tr>
<td>1,2-Propanediol</td>
<td>57-55-6</td>
<td>3.50</td>
</tr>
<tr>
<td>Sulphonated aromatic polymer, sodium salt</td>
<td></td>
<td>1.50</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary blurred vision due to contraction of the pupils (miosis) following contact with the eyes.</td>
</tr>
<tr>
<td>bradycardia</td>
</tr>
<tr>
<td>low blood pressure</td>
</tr>
<tr>
<td>Salivation</td>
</tr>
<tr>
<td>bronchial hypersecretion</td>
</tr>
<tr>
<td>Vomiting</td>
</tr>
<tr>
<td>Diarrhoea</td>
</tr>
<tr>
<td>sweating</td>
</tr>
<tr>
<td>Muscular fasciculation</td>
</tr>
<tr>
<td>Spasm</td>
</tr>
<tr>
<td>breathing difficulties</td>
</tr>
</tbody>
</table>
respiratory paralysis  
Somnolence  
Coma  
respiratory failure  
hypothermia  
Convulsions  
Nausea

**Hazards**  
This product is 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.

The following antidote is generally accepted: atropine.

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

<table>
<thead>
<tr>
<th>Flash point</th>
<th>&gt; 93.4 °C / &gt; 200.1 °F</th>
</tr>
</thead>
</table>

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

**Suitable extinguishing media**  
Water spray, Foam, Carbon dioxide (CO2), Dry powder

**Fire Fighting Instructions**  
Evacuate personnel to safe areas. 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

<table>
<thead>
<tr>
<th>Personal precautions</th>
<th>Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.</th>
</tr>
</thead>
</table>

**Methods for cleaning up**  
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**Additional advice**  
Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal. Inform appropriate authorities immediately if contamination occurs.
SECTION 7. HANDLING AND STORAGE

Handling procedures
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 crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. The 30-day storage temperature average must not exceed the recommended maximum.

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 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.

Min/Max Storage Temperatures
Recommended minimum transport/storage temperature: -20 °C / -4 °F
Recommended maximum transport/storage temperature: 40 °C / 104 °F

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.

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

Eye/Face Protection
Tightly fitting safety goggles

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Code</th>
<th>Agency</th>
<th>Standard</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbaryl</td>
<td>63-25-2</td>
<td>ACGIH TWA</td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH NIC TWA</td>
<td>0.5 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL</td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA Z1 PEL</td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA Z1A TWA</td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>US CA OEL TWA PEL</td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TX ESL ST ESL</td>
<td>50 ug/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TX ESL AN ESL</td>
<td>5 ug/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OES BCS* TWA</td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TWA</td>
<td>0.5 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TN OEL TWA</td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td>1,2-Propanediol</td>
<td>57-55-6</td>
<td>WEEL TWA</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TX ESL ST ESL</td>
<td>20 ug/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TX ESL ST ESL</td>
<td>500 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TX ESL AN ESL</td>
<td>2 ug/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TX ESL AN ESL</td>
<td>50 ppm</td>
<td></td>
</tr>
<tr>
<td>Synthetic amorphous silica</td>
<td>112926-00-8</td>
<td>OSHA Z1A TWA</td>
<td>6 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TX ESL ST ESL</td>
<td>40 ug/m³</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>TX ESL AN ESL</td>
<td>4 ug/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>6 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>white to light beige</td>
</tr>
<tr>
<td>Physical State</td>
<td>liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>weak</td>
</tr>
<tr>
<td>pH</td>
<td>4.0 - 5.0 (100 %) at 23 °C</td>
</tr>
<tr>
<td>Density</td>
<td>1.05 g/cm³ at 20 °C</td>
</tr>
<tr>
<td>Water solubility</td>
<td>miscible</td>
</tr>
<tr>
<td>Viscosity</td>
<td>500 - 700 cps</td>
</tr>
</tbody>
</table>

SECTION 10. STABILITY AND REACTIVITY

| Conditions to avoid        | Heat, flames and sparks.    |
| Hazardous Decomposition Products | Thermal decomposition nitrogen oxides (NOx) |
|                           | 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 normal conditions.

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/female combined rat: LD50: ca. 1,820 mg/kg

Acute dermal toxicity
rabbit: LD50: > 2,000 mg/kg

Acute inhalation toxicity
male rat: LC50: 3.1 mg/l
Exposure time: 1 h
Determined in the form of liquid aerosol.

Skin irritation
rabbit: slight irritation

Eye irritation
rabbit: Minimally irritating.

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 63-25-2 Group A4

NTP
None.

IARC
Carbaryl 63-25-2 Overall evaluation: 3

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

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.

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

Toxicity to fish

Oncorhynchus mykiss (rainbow trout)
LC50: 3.3 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient carbaryl.

Toxicity to aquatic plants

Pseudokirchneriella subcapitata
Growth rate
EC50: 1.75 mg/l
Exposure time: 72 h
The value mentioned relates to the active ingredient carbaryl.

Acute Toxicity to Aquatic Invertebrates

Water flea (Daphnia magna)
EC50: 0.0164 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient carbaryl.

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 carbaryl.

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

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 contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not apply when weather conditions favor runoff or drift. Drift or runoff from treated areas may adversely affect non-target plants. 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. Inform appropriate authorities immediately if contamination occurs.

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

Follow advice on product label and/or leaflet. Do not re-use empty containers. Triple rinse containers. Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke.
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  3082
Class  9
Packaging group  III
Description of the goods  ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CARBARYL)
RQ  Reportable Quantity is reached with 444 lb of product.

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

IATA
UN-Number  3082
Class  9
Packaging group  III
Description of the goods  ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (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.

SECTION 15. REGULATORY INFORMATION

US Federal Regulations
TSCA list
Carbaryl  63-25-2
1,2-Propanediol  57-55-6
Sulphonated aromatic polymer, sodium salt
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
Sulphonated aromatic polymer, 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 - 2 Flammability - 1 Reactivity - 1 Others - none

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

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

The information contained herein is offered only as a guide to the handling of this specific material. Since such information does not related 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.