

SAFETY DATA SHEET



SEVIN T&O INSECTICIDE

Version 1.0 / CDN
102000004253

1/12
Revision Date: 06/09/2016
Print Date: 06/10/2016

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name SEVIN T&O INSECTICIDE

Product code (UVP) 05927226

SDS Number 102000004253

PCP Registration No. 16653

Relevant identified uses of the substance or mixture and uses advised against

Use Insecticide

Restrictions on use See product label for restrictions.

Information on supplier

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

Responsible Department Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577

Product Information Telephone Number 1-888-283-6847

SECTION 2: HAZARDS IDENTIFICATION

Classified in accordance with Part 2 of the Hazardous Products Regulations

Acute toxicity(Oral): Category 4

Carcinogenicity: Category 2

Labelling in accordance with Part 2 of the Hazardous Products Regulations



Signal word: Warning

Hazard statements

Harmful if swallowed.

Suspected of causing cancer.

Precautionary statements

Wash thoroughly after handling.

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Do not eat, drink or smoke when using this product.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.
Rinse mouth.
IF exposed or concerned: Get medical advice/ attention.
Store locked up.
Dispose of contents/container in accordance with local regulation.

Hazards Not Otherwise Classified (HNOC)

This product contains an cholinesterase inhibitor.
No physical hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Hazardous Component Name | CAS-No. | Concentration % by weight |
|--|------------|---------------------------|
| Carbaryl | 63-25-2 | 43.0 |
| Naphthalene and alkyl naphthalene sulphonic acids formaldehyde condensate, sodium salt | 68425-94-5 | 1.1 |

SECTION 4: FIRST AID MEASURES

Description of first aid measures

| | |
|-----------------------|---|
| General advice | When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment. |
| 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. |
| Skin contact | 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. |
| Eye contact | 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. |
| 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. |

Most important symptoms and effects, both acute and delayed

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| | |
|---|---|
| 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 |
| Indication of any immediate medical attention and special treatment needed | |
| Risks | This product is a cholinesterase inhibitor carbamate. |
| Treatment | <p>The product inhibits cholinesterase resulting in stimulation of the central nervous system, the parasympathetic nervous system, and the somatic motor nerves.</p> <p>The following antidote is generally accepted: atropine.</p> <p>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.</p> |

SECTION 5: FIREFIGHTING MEASURES

| | |
|--|---|
| Extinguishing media | |
| Suitable | Water spray, Foam, Carbon dioxide (CO ₂), Dry powder |
| Unsuitable | None known. |
| Special hazards arising from the substance or mixture | In the event of fire the following may be released:, Carbon monoxide (CO), Nitrogen oxides (NO _x) |
| Advice for firefighters | |
| Special protective equipment for firefighters | Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing. |
| Further information | Keep out of smoke. Fight fire from upwind position. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth. Do not allow run-off from fire fighting to enter drains or water courses. |
| Flash point | > 100 °C |
| Auto-ignition temperature | No data available |
| Lower explosion limit | 2.6 %(V) |
| Upper explosion limit | 19 %(V) |
| Explosivity | Not applicable |

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Isolate hazard area. Keep people away from and upwind of spill/leak. Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke.

Methods and materials for containment and cleaning up

Methods for cleaning up Dike area to prevent runoff. 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.

Check also for any local site procedures.

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes and clothing. Use only in area provided with appropriate exhaust ventilation.

Hygiene measures 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. Contaminated work clothing should not be allowed out of the workplace. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers 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.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Components | CAS-No. | Control parameters | Update | Basis |
|--|-------------|--|---------|---------------|
| Carbaryl | 63-25-2 | 5 mg/m ³ (TWA) | 07 2009 | CAD AB OEL |
| Carbaryl | 63-25-2 | 5 mg/m ³ (TWA) | 09 2011 | CAD BC OEL |
| Carbaryl (Inhalable fraction and vapor.) | 63-25-2 | 0.5 mg/m ³ (TWA) | 03 2011 | CAD MB OEL |
| Carbaryl (Inhalable fraction and vapor.) | 63-25-2 | 0.5 mg/m ³ (TWAEV) | 11 2010 | CAD ON OEL |
| Carbaryl | 63-25-2 | 5 mg/m ³ (8 HR ACL) | 05 2009 | CAD SK OEL |
| Carbaryl | 63-25-2 | 10 mg/m ³ (15 MIN ACL) | 05 2009 | CAD SK OEL |
| Carbaryl | 63-25-2 | 5 mg/m ³ (TWA) | 11 2011 | OEL (QUE) |
| Carbaryl | 63-25-2 | 0.5 mg/m ³ (TLV) | | OES BCS* |
| Synthetic amorphous silica (Respirable.) | 112926-00-8 | 1.5 mg/m ³ (TWA) | 09 2011 | CAD BC OEL |
| Synthetic amorphous silica (Total) | 112926-00-8 | 4 mg/m ³ (TWA) | 09 2011 | CAD BC OEL |
| Synthetic amorphous silica (Respirable dust.) | 112926-00-8 | 6 mg/m ³ (TWA) | 11 2011 | OEL (QUE) |
| 1,2-Propanediol (Aerosol.) | 57-55-6 | 10 mg/m ³ (TWAEV) | 11 2010 | CAD ON OEL |
| 1,2-Propanediol (Vapor and aerosol.) | 57-55-6 | 155 mg/m ³ /50 ppm (TWAEV) | 06 2015 | CAD ON OEL |

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

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in

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accordance with the appropriate regulatory standards and/or industry recommendations.

| | |
|------------------------------------|--|
| Hand protection | Chemical resistant nitrile rubber gloves Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. |
| Eye protection | Safety glasses with side-shields |
| Skin and body protection | Wear long-sleeved shirt and long pants and shoes plus socks. |
| General protective measures | Cholinesterase activity of the worker should be supervised. 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 wash facility and safety shower should be available. |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|--|
| Appearance | white to beige |
| Physical State | liquid suspension |
| Odor | mild |
| Odour Threshold | No data available |
| pH | 4.0 - 5.0 at 100 % |
| Vapor Pressure | 23.7 hPa / 17.8 mm Hg at 20 °C |
| Vapor Density (Air = 1) | No data available |
| Density | 1.10 g/cm ³ at 20 °C |
| Evaporation rate | No data available |
| Boiling Point | 98.8 °C / 209.84 °F |
| Melting / Freezing Point | -3 °C / 26.6 °F |
| Water solubility | miscible |
| Minimum Ignition Energy | Not applicable |
| Decomposition temperature | 175 - 190 °C Exothermic decomposition. |
| Partition coefficient: n-octanol/water | Not applicable |
| Viscosity | 500 - 700 mPaxs |
| Flash point | > 100 °C |
| Auto-ignition temperature | No data available |
| Lower explosion limit | 2.6 %(V) |

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Upper explosion limit 19 %(V)
Explosivity Not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition 175 - 190 °C
Exothermic decomposition.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions No hazardous reactions when stored and handled according to prescribed instructions.

Conditions to avoid Heat, flames and sparks.

Incompatible materials Strong acids, Bases

Hazardous decomposition products No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Ingestion, Inhalation, Skin contact, Eye contact

Immediate Effects

Eye Causes redness, irritation, tearing.

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

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.

Inhalation Harmful if inhaled. May produce symptoms similar to those from ingestion.

Information on toxicological effects

Acute oral toxicity LD50 (Rat) 699 mg/kg

Acute inhalation toxicity LC50 (male/female combined Rat) \geq 3.84 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.
Highest attainable concentration.

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| Acute dermal toxicity | LD50 (male/female combined Rabbit) > 4,000 mg/kg |
| Skin irritation | slight irritation (Rabbit) |
| Eye irritation | slight irritation (Rabbit) |
| Sensitisation | Non-sensitizing. (Guinea pig) |

Assessment repeated dose toxicity

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

Assessment mutagenicity

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

Assessment carcinogenicity

Carbaryl caused at high dose levels an increased incidence of tumours in the following organ(s): Liver, Thyroid, Kidney, Cardio-vascular system. 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.

Assessment toxicity to reproduction

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

Assessment developmental toxicity

Carbaryl did not cause developmental toxicity in rats and rabbits.

Further information

Acute toxicity studies have been bridged from a similar formulation(s).
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

| | |
|--|--|
| Toxicity to fish | LC50 (Oncorhynchus mykiss (rainbow trout)) 1.4 mg/l Exposure time: 96 h |
| Toxicity to aquatic invertebrates | EC50 (Daphnia magna (Water flea)) 0.00067 mg/l Exposure time: 48 h |

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|-----------------------------------|---|
| | EC50 (Mysidopsis bahia (mysid shrimp)) 0.0088 mg/l Exposure time: 96 h |
| Toxicity to aquatic plants | (Raphidocelis subcapitata (freshwater green alga)) 1.8 mg/l Exposure time: 96 h Test conducted with a similar formulation. |
| Biodegradability | Carbaryl: rapidly biodegradable |
| Koc | Carbaryl: Koc: 624 |
| Bioaccumulation | Carbaryl: Bioconcentration factor (BCF) 44 Does not bioaccumulate. |
| Mobility in soil | Carbaryl: Slightly mobile in soils |
| 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. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Apply this product as specified on the label. |

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

| | |
|-------------------------------|--|
| Product | Do not contaminate water, food, or feed by disposal. 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. Follow container label instructions for disposal of wastes generated during use in compliance with the product label. |
| Contaminated packaging | 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. |

SECTION 14: TRANSPORT INFORMATION

| | |
|------------------|------------------|
| TDG | |
| UN number | 3082 |
| Labels | 9 |
| Packaging group | III |
| Marine pollutant | Marine pollutant |

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Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(CARBARYL)

49CFR

UN number **3082**
Class 9
Packaging group III
Marine pollutant Marine pollutant
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID,
N.O.S.
(CARBARYL)

RQ Reportable Quantity is reached with 232 lb of product.

IMDG

UN number **3082**
Class 9
Packaging group III
Marine pollutant YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(CARBARYL SOLUTION)

IATA

UN number **3082**
Class 9
Packaging group III
Environm. Hazardous Mark YES
Proper shipping name 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.

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.

SECTION 15: REGULATORY INFORMATION

PCP Registration No. 16653
US Federal Regulations
TSCA list
None.

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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 25,000lbs

US States Regulatory Reporting

CA Prop65

This product contains a chemical known to the State of California to cause cancer.

Carbaryl 63-25-2

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.

Carbaryl 63-25-2 Developmental toxin.

US State Right-To-Know Ingredients

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

Canadian Regulations

Canadian Domestic Substance List

Naphthalene and alkyl naphthalene 68425-94-5
sulphonic acids formaldehyde
condensate, sodium salt

Environmental

CERCLA

Carbaryl 63-25-2

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

| | |
|---------|---|
| 49CFR | Code of Federal Regulations, Title 49 |
| ACGIH | US. ACGIH Threshold Limit Values |
| ATE | Acute toxicity estimate (ATE) |
| CAS-Nr. | Chemical Abstracts Service number |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| EINECS | European inventory of existing commercial substances |
| ELINCS | European list of notified chemical substances |
| IARC | US. IARC Monographs on Occupational Exposures to Chemical Agents |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| N.O.S. | Not otherwise specified |
| NTP | US. National Toxicology Program (NTP) Report on Carcinogens |
| OECD | Organization for Economic Co-operation and Development |

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TDG Transportation of Dangerous Goods
TWA Time weighted average
UN United Nations
WHO World health organisation

NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 1 Instability - 1 Others - none

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

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

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

Reason for Revision: New Safety Data Sheet.

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

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