SAFETY DATA SHEET

SEVIN® BRAND 85 S CARBARYL INSECTICIDE

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

Product identifier
Trade name
SEVIN® BRAND 85 S CARBARYL INSECTICIDE
Product code (UVP)
80221606
SDS Number
102000026142

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 Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
United States

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
1-800-331-2867

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200
Carcinogenicity: Category 2
Acute toxicity(Oral): Category 3
Combustible dust

Labelling in accordance with regulation HCS 29CFR §1910.1200

Signal word: Danger
Hazard statements
Suspected of causing cancer.
Toxic if swallowed.
May form combustible dust concentrations in air.
Conduct Dust Hazard Assessment (DHA).
Precautionary statements
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.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
IF exposed or concerned: Get medical advice/attention.
IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.
Specific treatment (see supplemental first aid instructions on this label).
Rinse mouth.
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

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Concentration % by weight</th>
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</thead>
<tbody>
<tr>
<td>Carbaryl</td>
<td>63-25-2</td>
<td>85.0</td>
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</tbody>
</table>

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
Symptoms
Temporary blurred vision due to contraction of the pupils (miosis) following contact with the eyes.

Indication of any immediate medical attention and special treatment needed
Risks
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. 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: FIREFIGHTING MEASURES

Extinguishing media
Suitable
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable
High volume water jet

Special hazards arising from the substance or mixture
Dangerous gases are evolved in the event of a fire.

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. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Flash point
Not applicable

Auto-ignition temperature
No data available

Lower explosion limit
Not applicable

Upper explosion limit
Not applicable

Explosivity
No data available
SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions
Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces. Avoid dust formation.

Methods and materials for containment and cleaning up

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.

Additional advice
Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal.

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
Handle and open container in a manner as to prevent spillage. Use only in area provided with appropriate exhaust ventilation. Avoid dust formation.

Advice on protection against fire and explosion
Dust may form explosive mixture in air.

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. 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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
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<tr>
<td>Carbaryl</td>
<td>63-25-2</td>
<td>5 mg/m3 (TWA)</td>
<td>1989</td>
<td>OSHA Z1A</td>
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</table>
### 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 accordance with the appropriate regulatory standards and/or industry recommendations.

**Hand protection**
Chemical resistant nitrile rubber gloves

**Eye protection**
Tightly fitting safety goggles

**Skin and body protection**
Wear long-sleeved shirt and long pants and shoes plus socks. Chemical resistant headgear for overhead exposure

**General protective measures**
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.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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<th>Property</th>
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<tr>
<td>Appearance</td>
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<tr>
<td>Bulk density</td>
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</table>
Evaporation rate 19.0 - 26.0 lb/ft³ (bulk density tapped)
Boiling Point Not applicable
Melting / Freezing Point Not applicable
Water solubility dispersible
Minimum Ignition Energy > 3 - < 5 mJ
Decomposition temperature 175 - 190 °C Exothermic decomposition.
Partition coefficient: n-octanol/water No data available
Viscosity Not applicable
Flash point Not applicable
Auto-ignition temperature No data available
Lower explosion limit Not applicable
Upper explosion limit Not applicable
Explosivity No data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity
Thermal decomposition 175 - 190 °C Exothermic decomposition.
Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions No hazardous reactions when stored and handled according to prescribed instructions.
Conditions to avoid Extremes of temperature and direct sunlight.
Incompatible materials No data available
Hazardous decomposition products No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Ingestion, Eye contact, Skin Absorption, Inhalation
Immediate Effects
Eye  May cause redness, irritation, tearing.
Skin  Harmful if absorbed through skin. May produce symptoms similar to those from ingestion.
Ingestion  May be fatal 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.

Information on toxicological effects

Acute oral toxicity  LD50 (Rat)  212 mg/kg
Acute inhalation toxicity  LC50 (Rat)  > 5 mg/l
                        Exposure time: 4 h
Acute dermal toxicity  LD50 (Rabbit)  > 2,000 mg/kg
Skin irritation  Slight irritant effect - does not require labelling. (Rabbit)
Eye irritation  Slight irritant effect - does not require labelling. (Rabbit)
Sensitisation  Non-sensitizing. (Guinea pig)

Assessment STOT Specific target organ toxicity – repeated exposure
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
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

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

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

Toxicity to aquatic plants
EC50 (Raphidocelis subcapitata (freshwater green alga)) 1.75 mg/l
Exposure time: 72 h
The value mentioned relates to the active ingredient carbaryl.

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

Additional ecological information
No other effects to be mentioned.

Environmental precautions
Do not allow to get into surface water, drains and ground water.
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.
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.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods
Product
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.
Dispose in accordance with all local, state/provincial and federal regulations.
Do not contaminate water, food, or feed by disposal.

**Contaminated packaging**

Do not re-use empty containers.

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.

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**SECTION 14: TRANSPORT INFORMATION**

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</table>

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.

Freight Classification: INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN POISON
SECTION 15: REGULATORY INFORMATION

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 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
None.

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
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 International Agency for Research on Cancer
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
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

- Health: 2
- Flammability: 1
- Physical Hazard: 0
- PPE: -

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

Reason for Revision: Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

Revision Date: 10/09/2017

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