



Creating Value Through Innovative Solutions

## Material Safety Data Sheet

### SEVIN<sup>®</sup> Brand XLR Plus Carbaryl Insecticide

MSDS Number : 5972

DATE: (1/31/2012)

7 Pages

#### Section 1: CHEMICAL PRODUCT and COMPANY IDENTIFICATION

- 1.0** Product Name ..... **SEVIN<sup>®</sup> Brand XLR Plus Carbaryl Insecticide**  
 Chemical Family ..... Carbamate  
 Synonyms ..... 1-naphthyl methylcarbamate  
 Formula ..... NA - blend
- 1.2** **Manufacturer** ..... Tessenderlo Kerley Inc.  
 2255 N. 44<sup>th</sup> Street, Suite 300  
 Phoenix, Arizona 85008-3279  
 Information ..... (602) 889-8300
- 1.3** **Emergency Contact** ..... (866) 374-1975 (Tessenderlo Kerley)  
**(800) 424-9300 (CHEMTREC)**

#### Section 2: COMPOSITION, INFORMATION ON INGREDIENTS

- 2.1** **Chemical Ingredients (% by wt.)**
- |  | CAS No. | %    |
|--|---------|------|
| Carbaryl (1-naphthyl methyl carbamate) | 63-25-2 | 44.1 |
| 1,2 Propanediol                        | 57-5-6  |      |
- (See Section 8 for exposure guidelines)

#### Section 3: HAZARDS IDENTIFICATION

**NFPA:**      **Health - 1**      **Flammability - 2**      **Reactivity - 1**

#### EMERGENCY OVERVIEW

CAUTION! Harmful if swallowed, inhaled or absorbed through the skin. Harmful if exposed to eyes.  
 Harmful if exposed to eyes.  
 Do not breathe vapors or spray mist.  
 Avoid contact with eyes, skin, respiratory tract and clothing.

<b>Section</b>	<b>3:</b>	<b>HAZARDS IDENTIFICATION Cont.</b>
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**3.1 POTENTIAL HEALTH EFFECTS** (if product not handled in the recommended manner)

**EYE:** Contact with the eyes may cause eye irritation with redness and tearing

**SKIN CONTACT:** See **Skin Absorption**.

**SKIN ABSORPTION:** Harmful if absorbed through the skin. May produce symptoms similar to ingestion.

**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./

**INHALATION:** Harmful if inhaled. May produce symptoms similar to ingestion. Do not breathe vapors or mist.

**CHRONIC EFFECTS/CARCINOGENICITY:** This product or its components may have target organ effects. This product contains ingredients that are considered to be probable or suspected human carcinogens.

See Section 11, Toxicological Information

<b>Section</b>	<b>4:</b>	<b>FIRST AID MEASURES</b>
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With any exposure contact the Poison Control Center for medical advise. Have product label with you when calling.

**4.1 EYES:** Immediately flush with large quantities of water for 15 minutes. Hold eyelids apart during irrigation to insure thorough flushing of the entire area of the eye and lids. Obtain immediate medical attention.

**4.2 SKIN:** Immediately flush with large quantities of water for 15 minutes. Remove contaminated clothing under a safety shower. Obtain immediate medical attention.

**4.3 INGESTION:** Contact a physician or Poison Control Center immediately. **DO NOT INDUCE VOMITING** unless directed by a physician. Rinse out mouth, then give small sips of water to drink. If vomiting does occur, repeat fluid administration. If unconscious or convulsing, do not give fluids. Do not leave victim unattended..

**4.4 INHALATION:** Remove victim from contaminated atmosphere. If breathing is labored, administer oxygen. If breathing has ceased, clear airway and start resuscitation. If heart has stopped beating, external heart massage should be applied. Obtain immediate medical attention.

Physician Notes: This product contains o 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. If symptoms of carbamate poisoning are present, the administration of atropine sulfate is indicated.

**ANIDOTE:** Administer atropine sulfate in large therapeutic doses. Repeat as necessary to the point of tolerance. In mild cases, start treatment by giving 1-2 mg of atropine intravenously every 15 minutes until signs of atropinization appear (dry mouth, flushing and dilated pupils if pupils were

<b>Section</b>	<b>4:</b>	<b>FIRST AID MEASURES, Cont.</b>
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originally pinpoint). In severe cases 2-4 mg should be injected intravenously every 10 minutes until fully aptropinized, then intramuscularly every 30 to 60 minutes as needed to maintain the effect for at least 12 hours. Dosages for children should be appropriately reduced.

Do not use oximes such as 2-PAM unless organophosphate intoxication is suspected. Do not give morphine. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 24 to 48 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically.

<b>Section</b>	<b>5:</b>	<b>FIRE FIGHTING MEASURES</b>
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Do not allow run-off from the fire fighting to enter drains or water ways.

### 5.1 FLAMMABLE PROPERTIES

**FLASH POINT:** > 100°C / 212°F  
No Flash Point determination conducted up to the boiling point.

**5.2 FLAMMABLE LIMITS** NA

**5.3 EXTINGUISHING MEDIA:** Water spray, Foam, Carbon dioxide (CO<sub>2</sub>), Dry powder.

**5.4 FIRE & EXPLOSIVE HAZARDS:** In the event of fire carbon dioxide and Nitrogen oxides may be released.

**5.5 FIRE FIGHTING EQUIPMENT:** Wear self-contained breathing apparatus, pressure demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

<b>Section</b>	<b>6:</b>	<b>ACCIDENTAL RELEASE MEASURES</b>
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Only allow specifically trained personnel with necessary personnel protective equipment to deal with spilled product.

**6.1 Small releases:** Clear area. Stop leak if safely possible. Do not wash small spills away. Ensure adequate ventilation. Do not discharge into drains or surface waters/groundwater. Dry up with dry and inert absorbent clay, then shovel material into a suitable container for disposal. Dispose as directed by the pesticide product label.

**6.2 Large releases:** Cordon off area of spillage and dike area with dry and inert absorbent clay material to prevent any further migration. Recover as much of usable product using a pump or suction for application (best disposal practice). Handle remaining material as a small spill above.

<b>Section</b>	<b>7:</b>	<b>HANDLING and STORAGE</b>
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**7.1 Handling:** Use product only in areas with appropriate exhaust ventilation. Handle and open containers in a safe manner to prevent spillage. Maintain exposure levels below the exposure limit through the use of local exhaust ventilation.

<b>Section</b>	<b>7:</b>	<b>HANDLING and STORAGE, Cont.</b>
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**7.2 Storage:** Store in cool (recommended 100°F max), dry, well ventilated areas away from heat or flame. Protect containers from physical damage and contamination with other pesticides, fertilizers, food and feed. Store in original container and out of reach of children.

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

<b>Section</b>	<b>8:</b>	<b>EXPOSURE CONTROLS, PERSONAL PROTECTION</b>
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All personnel who handle this product in its end-use application should use this product only in accordance with its pesticide labeling and with the "Worker Protection Standard", 40 CFR 170. Wear long-sleeve work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with shower and eye wash. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with product; do not reuse the clothing.

**8.1 RESPIRATORY PROTECTION:** When required use NIOSH approved respirators based on the actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

**8.2 SKIN PROTECTION:** Wear chemical resistant gloves (butyl , natural, nitrile or neoprene rubber) and coveralls over long-sleeve shirt and long pants and chemical resistant apron to prevent contact with the skin.

**8.3 EYE PROTECTION:** Chemical goggles and a full face shield to prevent contact with face and eyes.

**8.4 EXPOSURE GUIDELINES:**

Carbaryl	ACGIH	TWA	5 mg/m <sup>3</sup>
	NIOSH	REL	5 mg/m <sup>3</sup>
	OSHA	PEL	5 mg/m <sup>3</sup>
	OSHA	TWA	5 mg/m <sup>3</sup>
1,2 Propanediol	WEEL	TWA	10ug/m <sup>3</sup>

**ENGINEERING CONTROLS:** Use adequate exhaust ventilation to prevent inhalation of product vapors, mist or dust..

<b>Section</b>	<b>9:</b>	<b>PHYSICAL and CHEMICAL PROPERTIES.</b>
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<b>9.1 APPEARANCE:</b>	white to beige liquid suspension
<b>9.2 ODOR:</b>	weak characteristic
<b>9.3 BOILING POINT:</b>	No data available
<b>9.4 VAPOR PRESSURE:</b>	No data available
<b>9.5 VAPOR DENSITY:</b>	No data available
<b>9.6 SOLUBILITY IN WATER:</b>	miscible
<b>9.7 DENSITY:</b>	approximately 1.09 g/cm <sup>3</sup> (9.63 lb/gal)
<b>9.8 MELTING/FREEZING POINT:</b>	-4°C / 25°F
<b>9.9 pH:</b>	4.0 – 5.0 (10%) @ 20°C
<b>9.10 DECOMPOSITION TEMPERATURE:</b>	175 – 190°C (exothermic decomposition)

<b>Section</b>	<b>9:</b>	<b>PHYSICAL and CHEMICAL PROPERTIES, Cont.</b>
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**9.11 Viscosity** 500 – 700 mPa. @ 25°C (77°F)

<b>Section</b>	<b>10:</b>	<b>STABILITY and REACTIVITY</b>
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**10.1 STABILITY:** This is a stable material under normal temperature and storage conditions.

**10.2 HAZARDOUS POLYMERIZATION:** Will not occur.

**10.3 HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, Nitrogen oxides

**10.4 INCOMPATIBILITY:** Acids and bases

<b>Section</b>	<b>11:</b>	<b>TOXICOLOGICAL INFORMATION</b>
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**11.1 ORAL:** male rat: LD<sub>50</sub>: 867 mg/kg  
Female rat: LD<sub>50</sub>: 575 mg/kg  
Combined rat: LD<sub>50</sub>: 699 mg/kg

**11.12 DERMAL:** rat LD<sub>50</sub>: >4,000 mg/kg

**11.3 INHALATION:** male/female rat LC<sub>50</sub>: 3.8 mg/l

**11.4 SKIN IRRITATION:** rabbit slight irritation

**11.5 EYE IRRITATION:** rabbit: slight irritation

**11.6 SENSITATION:** guinea pig: Non-sensitizing

**11.7 CHRONIC TOXICITY:** Carbaryl causes reversible cholinesterase inhibition. Changes in urinary Bladder, thyroid, kidney, and liver were observed in chronic rat studies

**11.8 CARCINOGENICITY:** Carbaryl has been shown to cause tumors in lab animals in lifetime feeding studies.

Carbaryl	ACGIH	Group A4
	NTP	None
	IARC	Overall evaluation : 3
	OSHA	None

**11.9 REPRODUCTIVE & DEVELOPMENTAL TOXICITY:** Reproduction: Carbaryl not a reproductive toxicant in a 2 generation study.

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

**11.10 NEUROTOXICITY:** Carbaryl cause transient neurobehavioral effects (e.g., tremors) related to Cholinergic toxicity without correlating neuropathological changes in acute And sub chronic neurotoxicity studies in rats. Carbaryl did not cause developmental neurotoxic effects in offspring in a 1 generation study in rats.

<b>Section</b>	<b>11:</b>	<b>TOXICOLOGICAL INFORMATION, Cont.</b>
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**11.11 MUTAGENICITY:** Carbaryl poses only a slight mutagenic risk based on the overall weight of Evidence in a battery of in-vitro and vivo tests.

<b>Section</b>	<b>12:</b>	<b>ECOLOGICAL INFORMATION</b>
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Do not apply when weather conditions favor runoff or drift. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label. 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 allow to get into surface water, drains and ground water.

Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

<b>Section</b>	<b>13:</b>	<b>DISPOSAL CONSIDERATIONS</b>
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Disposal of product waste should be handled by licensed waste handlers in accordance with all governmental regulations. Do not contaminate water, food or feed by improper disposal. Wastes resulting from the use of this product may be disposed of at an approved waste disposal facility.

**Container disposal:** Do not re-use empty containers. Triple rinse containers. Puncture container to avoid Re-use. Consult state and local regulations regarding proper disposal of container.

**RCRA Classification:** Carbaryl is listed in 40 CFR 261.33(f) as a U279, listed toxic waste.

<b>Section</b>	<b>14:</b>	<b>TRANSPORT INFORMATION</b>
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In accordance with 49 CFR 171.4(c), **non-bulk packagings** (*max capacity of 119 gal (450 L) or less for liquids or 882 lbs (400 kg) or less for solids*) transported by motor vehicle, rail car or aircraft are excepted from all Marine Pollutants regulations in 49 CFR and therefore treated as non-hazardous material. All bulk shipments or any shipment transported partially or entirely by vessel are treated as regulated Marine Pollutants and are shipped according to the requirements listed below. Since Carbaryl has a Reportable Quantity of 100 lbs, shipments exceeding 227 lbs (25 gallons) of product also must use the description below.

**14.1 DOT Shipping Name:** Environmentally Hazardous Substance, liquid, n.o.s.

**14.2 DOT Hazard Class:** 9

**14.3 UN/NA Number:** UN3082

**14.4 Packing Group:** III

**14.5 DOT Placard:** Class 9

**14.6 DOT Mark** Marine Pollutant (Carbaryl)

**14.7 IMO Shipping Name:** Environmentally Hazardous Substance, liquid, n.o.s.

<b>Section</b>	<b>14:</b>	<b>TRANSPORT INFORMATION, Cont.</b>
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**14.8 Reportable Quantity (RQ):** 100 lbs (Carbaryl)

**14.9 IATA/ICAO (Ai):** Environmentally Hazardous Substance, liquid, n.o.s.

<b>Section</b>	<b>15:</b>	<b>REGULATORY INFORMATION</b>
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**15.1 OSHA:** Federal This product is considered a hazardous chemical under criteria of the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**15.2 SARA TITLE III:**

a.	<b>EHS (Extremely Hazardous Substance) List:</b>	No
b.	Section 311/312, (Tier I,II) Categories:	Immediate (acute) Yes
	Fire	No
	Sudden release	No
	Reactivity	No
	Delayed (chronic)	Yes
c.	Section 313 (Toxic Release Reporting-Form R):	Yes
	<u>Chemical name</u>	<u>CAS No.</u>
	Carbaryl	63-25-2
		<u>Concentration</u>
		44.1%

**15.3 CERCLA/SUPERFUND:** RQ (Reportable Quantity) Carbaryl (100 lbs) Yes

**15.4 TSCA:** (Toxic Substance Control Act) Inventory List: Yes

**15.5 RCRA:** (Resource Conservation and Recovery Act) Status: Yes, U279

**15.6 DOT:** Hazardous Material: (See Section 14) Yes

**15.7 CAA:** Hazardous Air Pollutant (HAP) No

**15.8 FIFRA:** Registered pesticide Yes  
EPA REG # 61842-37

**15.9 Prop 65 (CA):** Yes

**15.10 Canadian DSL** Yes  
1,2 Propanediol

<b>Section</b>	<b>16:</b>	<b>OTHER INFORMATION</b>
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**REVISIONS:** The entire MSDS was reformatted to comply to ANSI Standard Z400.1-1993, by Technical Services-Tessenderlo Kerley, Inc.

<p>THE INFORMATION PUBLISHED IN THIS MATERIAL SAFETY DATA SHEET HAS BEEN COMPILED FROM OUR EXPERIENCE AND OSHA, ANSI, NFPA, DOT, ERG, AND CHRIS. IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE SUITABILITY OF THIS INFORMATION FOR THE ADOPTION OF NECESSARY SAFETY PRECAUTIONS. WE RESERVE THE RIGHT TO REVISE MATERIAL SAFETY DATA SHEETS PERIODICALLY AS NEW INFORMATION BECOMES AVAILABLE.</p>
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