



## Material Safety Data Sheet

### SECTION 1. IDENTIFICATION

**Product Name:** Lemur SP Methomyl Insecticide  
**EPA Registration No.:** 83100-28-84237  
**Recommended Use:** Insecticide  
**Manufacturer:** Solera ATO, LLC  
12230 E Del Norte  
Yuma, AZ 85367  
Customer Service (928) 503-1518

**FOR MEDICAL EMERGENCIES, CONTACT the National Poison Information Center 1-800-222-1222**  
**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300**

### SECTION 2. HAZARDS IDENTIFICATION

*NOTE: Please refer to Section 11 for detailed toxicological information.*

#### HAZARD CLASSIFICATION

Acute Oral Toxicity: Category 2; Acute Inhalation Toxicity: Category 2; Acute aquatic Toxicity: Category 1.

**SIGNAL WORD** Danger

#### HAZARD STATEMENTS

Fatal if swallowed. May be fatal if inhaled or gets in eyes. Do not breathe dust. Do not get in eyes. Avoid contact with clothing. This pesticide is toxic to fish, aquatic invertebrates, and mammals. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds.

Keep container closed. Use with adequate ventilation.

#### PICTOGRAMS



#### PRECAUTIONARY STATEMENTS

Fatal if swallowed. May be fatal if inhaled or gets in eyes. Do not breathe dust. Do not get in eyes. Avoid contact with clothing. Do not get into eyes or on clothing. Do not breathe dust. Avoid contact with skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### DESCRIPTION OF HAZARDS NOT OTHERWISE CLASSIFIED

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Methomyl (S-methyl-N-[(methylcarbamoyl)oxy]thioacetimidate)	16752-77-5	90.0
Other	NA	10

### SECTION 4. FIRST AID MEASURES

#### GENERAL

This Product is an N-Methyl Carbamate insecticide.

When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

#### IF SWALLOWED:

Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**IF INHALED:**

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF IN EYES:**

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:**

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

**ATROPINE IS AN ANTIDOTE --SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.** If poisoning symptoms appear, get medical attention.

**POISONING SYMPTOMS** — Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section on front panel of LEMUR LV label and seek medical attention at once.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT** — Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to LEMUR LV alone. However, for exposure to combinations of LEMUR LV and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

## SECTION 5. FIRE FIGHTING MEASURES

**FIRE EXTINGUISHING EQUIPMENT:**

Water Spray, Water Fog, Dry Chemical, CO2

**FIRE AND EXPLOSION HAZARDS:**

Fire or intense heat may cause violent rupture of packages. Heating can release vapors which can be ignited. Hazardous gases produced in fire under conditions that produce incomplete combustion may consist of SO2, NO2, CO2, HCN, CH3NCO, CO, CS2. Complete combustion greatly reduces the amounts of CS2, CO, HCN, and CH3NCO generated.

**PPE FOR FIREFIGHTERS/FIRE FIGHTING INSTRUCTIONS:**

Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Shut off source of fuel, if possible and without risk. Use water spray. Cool tank/container with water spray. Fight fire from maximum distance, use extreme caution as heat may decompose material and rupture containers.

If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**EMERGENCY PROCEDURES**

Avoid contact with spilled material. Do not allow product to enter streams, sewers or other roadways.

**PERSONAL PRECAUTIONS**

Wear appropriate personal protective equipment (PPE) : goggles, protective gloves/clothing, approved particulate respirator (see Section 8). 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. Prevent material from entering sewers, waterways, or low areas. Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

**METHODS FOR CLEANING UP**

Avoid dust formation. Contain spill. Shovel or sweep up powder. Collect in suitable container for disposal. Do not allow the material to enter sewers, waterways or low areas. Clean contaminated floors and objects thoroughly, observing environmental regulations.

## SECTION 7. HANDLING AND STORAGE

### HANDLING PROCEDURES

Avoid all contact with the skin, eyes, nose and mouth. When opening containers, transferring product, filling spray tanks, etc., wear full protective clothing including long sleeve cotton overalls, PVC or neoprene gloves and apron, rubber boots, goggles and a mask or respirator suitable for protection against toxic insecticides.

### STORING PROCEDURES

Keep away from heat, sparks, and open flame. Store in original container only. Store in a cool dry place. Do not contaminate water, other pesticides, fertilizer, food, or feed in storage. Keep out of reach of children.

### WORK/HYGIENIC PROCEDURES

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing.

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE LIMITS

Methomyl

PEL: (OSHA) 2.5 mg/m<sup>3</sup> 8 hr. TWA

TLV (ACGIH) 2.5 mg/m<sup>3</sup> TWA

### Mixers, loaders, applicators, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:

- Long sleeve shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or butyl rubber
- Socks and chemical resistant footwear
- Protective eyewear
- Chemical resistant apron
- Respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### ENGINEERING CONTROL STATEMENTS

Human flaggers must be in enclosed cabs.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR Part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR Part 170.240 (d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

Water soluble packets when used correctly qualify as a closed loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets are permitted to wear long-sleeved shirt, long pants, shoes plus socks, chemical-resistant gloves, and chemical-resistant apron, provided the other required PPE is immediately available in case the bag is opened.

**Pilots must not assist in the mixing and loading operations.**

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	White powder
<b>Odor</b>	Moderate characteristic odor
<b>Melting Point</b>	Not available
<b>Boiling Point</b>	Not applicable
<b>Flash point</b>	Not applicable
<b>Vapor Pressure</b>	0
<b>Density</b>	Bulk density 0.6 g/ml at 20 °C
<b>Solubility</b>	disperses

pH	No data available
Vapor Density	Not available
Volatility	Not available
Log Pow	No data available
Log Kow	2.3
Flammability	Non-flammable
Explosive Properties	Non-explosive
Oxidizing Properties	Non-oxidizing
Decomposition Temperature	Not Available
Autoignition Temperature	Not Available

## SECTION 10. STABILITY AND REACTIVITY

### Chemical Stability:

Stable at normal temperatures and storage conditions.  
Protect from heat.

### Incompatibility with Other Materials

Incompatible with strong bases, strong acids and oxidizing agents.

### Decomposition:

Thermal decomposition and combustion will produce hazardous gases. They may include smoke, sulfur oxides, methyl isocyanate and HCN (hydrogen cyanide).

### Hazardous Polymerization:

Polymerization will not occur.

## SECTION 11. TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY:

Acute oral	LD50 14 mg/kg in rats (male) 7.4 mg/kg (female).
Acute dermal	LD50 >5050 mg/kg for rats.
Acute inhalation	LC50 0.114-0.299 mg/L in rats (4h).
Eye irritation	Slight irritation (methomyl may be fatal if it gets into eyes)
Skin irritation	Non-irritation

### Carcinogenicity

: Not classified as a carcinogen.

Reproductive & Developmental toxicity

: Not classified as a reproductive toxin.

Neurotoxicity

: Not classified as a neurotoxin. However, effects of exposure may include neurotoxic effects such as constriction of pupils and tremors.

Mutagenicity

: Not classified as a mutagen.

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity (Acute)

Bees LC50/EC50 (48 hour):	0.1 ug/bee (contact)
Invertebrates (Daphnia) LC50/EC50 (48 hour):	28.7 ppb
Fish (bluegill ) LC50/EC50 (96 hour):	0.9 mg/L
Birds (Pheasant) LC50/EC50:	15.4 mg/kg
Birds (Mallard Ducks) LC50/EC50 (14-day):	15.9 mg/kg

### Ecotoxicological Summary

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.  
 NOT READILY BIODEGRADABLE.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL**

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance

**CONTAINER DISPOSAL**

**For Water Soluble Packets:** Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

**For Paper and Plastic Bags:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke

**SECTION 14. TRANSPORT INFORMATION**

**MARITIME TRANSPORT**

<b>IMDG: Proper shipping name</b>	Carbamate Pesticide, Liquid, Toxic, Flammable (methomyl, Cyclohexanone)
<b>UN number</b>	2757
<b>Class</b>	6.1
<b>Packing group</b>	II
<b>Marine pollutant</b>	Yes

**AIR TRANSPORT (IATA)-INTERNATIONAL**

<b>Proper shipping name</b>	Carbamate Pesticide, Liquid, Toxic, Flammable (methomyl, Cyclohexanone)
<b>UN number</b>	2757
<b>Class</b>	6.1
<b>Packing Group</b>	II

**SECTION 15. REGULATORY INFORMATION**

SARA 313 Regulated Chemical(s): Methanol  
 Title III hazard classification: Fire: No  
 Acute Health Hazard: Yes Reactivity/Physical hazard: No  
 Chronic Health Hazard: No Pressure: No  
 CERCLA Reportable Quantity: 100 lbs Based on the percentage composition of Methomyl in the product.  
 SARA Reportable Quantity: 110 lbs Based on the percentage composition of Methomyl in the product.

**SECTION 16. OTHER INFORMATION**

NFPA Rating	NPCA-HMIS Rating
Health : 2	Health : 3
Flammability : 1	Flammability : 1
Reactivity : 1	Reactivity : 1

(0: Minimal; 1: Slight; 2: Moderate; 3: Serious; 4: Extreme)

Revision Date : 03-31-17