



Safety Data Sheet

SECTION 1. IDENTIFICATION

Product Name: Lemur LV Methomyl Insecticide
EPA Registration No.: 82557-2-84237
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 dermal Toxicity: Category 5 Acute Inhalation Toxicity: Category 3;
Acute aquatic Toxicity: Category 1. Flammable liquids: Category 3

SIGNAL WORD Danger

HAZARD STATEMENTS

CONTAINS METHANOL. Methanol may cause blindness. Restricted Use Pesticide due to acute oral and primary eye irritation Toxicity Category I. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Combustible. Do not use or store near heat or open flame. Keep container closed. Use with adequate ventilation.

PICTOGRAMS



PRECAUTIONARY STATEMENTS

Fatal if swallowed. Corrosive. Causes irreversible eye damage. May be fatal if absorbed through skin. Harmful if inhaled. Avoid breathing spray mist. Do not get in eyes, on skin, or on clothing.

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 highwater 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 ground-water 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>Weight</u>	<u>CAS-No.</u>	<u>Average % by</u>
Methomyl (S-methyl-N-[(methylcarbamoyl)oxy]thioacetimidate)	16752-77-5	29.0
Cyclohexanone	108-94-1	29-34%
Methanol	67-56-1	≤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 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.

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.

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, Foam, Dry Chemical, CO2

FIRE AND EXPLOSION HAZARDS:

Hazardous gases produced in a fire under conditions that produce incomplete combustion may consist of SOx, NOx, COx, CH3NCO, HCN, CS2. When combusted at higher temperatures with sufficient oxygen, the following are greatly reduced: CS2, CO, HCN, and CH3NCO.

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

PERSONAL PRECAUTIONS

Remove source of heat, sparks, flame, impact, friction or electricity. Dike spill. Prevent material from entering sewers, waterways, or low areas.

EMERGENCY PROCEDURES

If product enters crevices and cannot be removed, treat with a sodium hydroxide solution and allow standing 4 hours.

NOTE: Sodium hydroxide is caustic and causes burns. Do not get in eyes, on skin or clothing.

METHODS FOR CLEANING UP

Soak up with sawdust, sand, oil dry or other absorbent material. Shovel or sweep up.

SECTION 7. HANDLING AND STORAGE

HANDLING PROCEDURES

Do not breathe vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Wash clothing after use. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.

STORING PROCEDURES

Do not subject to temperatures below 32°F. Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home

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

Cyclohexanone

PEL: (OSHA) 25 ppm 100 mg/m³ 8 hr. TWA

TLV (ACGIH) 50 ppm STEL

PEL: (OSHA) 50 ppm 200 mg/m³ 8 hr. TWA

TLV (ACGIH) 20 ppm TWA (Skin designation)

Methomyl

PEL: (OSHA) 2.5 mg/m³ 8 hr. TWA

TLV (ACGIH) 2.5 mg/m³ TWA

Methanol

PEL: (OSHA) 200 ppm 260 mg/m³ 8 hr. TWA

TLV (ACGIH) 250 ppm STEL (Skin designation)

TLV (ACGIH) 200 ppm TWA

ENGINEERING CONTROLS

Use only with adequate ventilation. Keep container tightly closed.

PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemically resistant to this product are listed below. If you want more options follow the instructions for Category B on the EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

Long-sleeved shirt and long pants

Chemical-resistant gloves, such as barrier laminate or butyl rubber

Shoes plus socks

Protective eyewear

For exposures in enclosed areas, a 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 NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter.

For exposures outdoors, a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any R, P, or HE prefilter.

Cleaners and repairers of application equipment must wear:

Long-sleeved shirt and long pants

Chemical resistant gloves

Chemical resistant footwear

Protective eyewear

Respirator as outlined above

Chemical resistant apron

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.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is:

Coveralls

Chemical-resistant gloves, such as barrier laminate or butyl rubber

Shoes plus socks

Protective eyewear

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Yellowish Liquid
Odor	Mild characteristic
Melting Point	Not applicable
Boiling Point	Not available
Vapor Pressure	0.72 mPa (25 °C) (tech)
Density	1.055g/ml(20 °C)
Solubility	Full soluble
pH	4.5 (1% water at 25 °C)
Vapor Density	Not available
Volatility	Not available
Log Pow	0.12 (pH 4); 0.15 (pH 7 & 9) at 25°C (Tech.)
Flammability	Not available
Lower explosion limit (LEL)	5 vol%
Upper explosion limit (UEL)	75 vol%
Explosive Properties	Not available
Oxidizing Properties	Not available
Flash point	38.4°C
Decomposition Temperature	Not Available
Autoignition Temperature	Not Available

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability:

Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials

None reasonably foreseeable.

Decomposition:

Decomposes with heat.

Hazardous gases/vapors produced are toxic and/or noxious.

They may include sulfur oxides, methylisocyanate and HCN.

Hazardous Polymerization:

Polymerization will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Acute oral	LD50 89 mg/kg in male rats; 49 mg/kg in female rats.
Acute dermal	LD50 >2000mg/kg for rats.
Acute inhalation	LC50 1.1 mg/L in rats (4h).
Eye irritation	moderate irritation (rabbit)
Skin irritation	slight irritation (rabbit)
Skin sensitization	Non-sensitive to skin (guinea pig)

CHRONIC TOXICITY

Prolonged or repeated exposure to methomyl may cause symptoms similar to the pesticide's acute effects. Repeated exposure to small amounts of methomyl may cause an unsuspected inhibition of cholinesterase, resulting in flu-like symptoms, such as weakness, lack of appetite, and muscle aches. Cholinesterase-inhibition may persist for two to six weeks. This condition is reversible if exposure is discontinued. Since cholinesterase is increasingly inhibited with each exposure, severe cholinesterase-inhibition symptoms may be produced in a person who has had previous methomyl exposure, while a person without previous exposure may not experience any symptoms at all.

Based on a 5 mg/kg NOEL in a two-year feeding study with dogs, and utilizing a 100 fold safety margin, the EPA has established an ADI (Acceptable Daily Intake) for methomyl of 0.02 mg/kg of body weight/day.

MUTAGENIC TOXICITY

In all of several assays (including Ames test, a reverse mutation assay, a recessive lethal assay, three DNA damage studies, an unscheduled DNA synthesis assay, and in vivo and in vitro cytogenetic assays), methomyl was not mutagenic. Methomyl showed no transforming activity in a host mediated hamster cell culture. There is no evidence that methomyl is a mutagen.

SECTION 12. ECOLOGICAL INFORMATION

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 highwater 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 ground-water 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

Aquatic toxicity

96 hour LC50, rainbow trout: 3.4 ppm

48 hour EC50, Daphnia magna: 7.6 ppm

96 hour LC50, bluegill sunfish: 0.72 ppm

Mobility

Not available.

Persistence and Degradability:

Not available.

Bioaccumulative Potential:

Not available.

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

This product is toxic to fish, birds and other wildlife. Keep out of any body of water. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system. Do not contaminate water, food, or feed by disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or reinstatement is a violation of Federal Law. If these wastes cannot be disposed of by us 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 Metal Containers (non aerosol): Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by the State and local authorities.

For Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

SECTION 14. TRANSPORT INFORMATION

MARITIME TRANSPORT

IMDG: Proper shipping name	Carbamate Pesticide, Liquid, Toxic, Flammable (methomyl, Cyclohexanone)
UN number	2991
Class	6.1(3)
Packing group	II
Marine pollutant	Yes

AIR TRANSPORT (IATA)-INTERNATIONAL

Proper shipping name	Carbamate Pesticide, Liquid, Toxic, Flammable (methomyl, Cyclohexanone)
UN number	2991
Class	6.1(3)
Packing Group	II

SECTION 15. REGULATORY INFORMATION

SARA 313 Regulated Chemical(s): Methanol

Title III hazard classification:

Acute Health Hazard: Yes

Chronic Health Hazard: No

Fire: Yes

Reactivity/Physical hazard: No

Pressure: No

CERCLA Reportable Quantity: 345 lbs

Based on the percentage composition of this chemical in the product: Methomyl

SARA Reportable Quantity: 345 lbs

Based on the percentage composition of this chemical in the product: Methomyl

California Prop. 65 Regulated Chemical(s):

Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known

PA Right to Know Regulated Chemical(s): Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Cyclohexanone , Methomyl , Methanol

NJ Right to Know Regulated Chemical(s): Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Cyclohexanone , Methomyl , Methanol

SECTION 16. OTHER INFORMATION

NFPA, NPCA-HMIS

NFPA Rating

Health : 2

Flammability : 2

Reactivity : 0

NPCA-HMIS Rating

Health : 3

Flammability : 2

Reactivity : 0

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

Revision Date : 09-30-15