



Safety Data Sheet

SECTION 1. IDENTIFICATION

Product Name: Lemur LV Methomyl Insecticide
EPA Registration No.: 83100-27-84237
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 3; Acute Dermal Toxicity: Category 4; Acute Inhalation (dusts/mists) Toxicity: Category 2; Eye Damage/Irritation: Category 2; Carcinogenicity: Category 1B; Specific Organ Toxicity (single exposure): Category 1; Flammable liquids: Category 3;

SIGNAL WORD Danger

HAZARD STATEMENTS

CONTAINS METHANOL. Methanol may cause blindness. Corrosive. Causes irreversible eye damage. May be fatal if swallowed or if inhaled. Harmful if absorbed through the skin.

Toxic if Swallowed. Harmful in contact with skin. Fatal if inhaled. May cause cancer. Causes damage to organs. Flammable liquid and vapor.

PICTOGRAMS



PRECAUTIONARY STATEMENTS

Restricted Use Pesticide due to toxicity categories. For retail sale and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Do not get in eyes or on clothing. Do not breathe spray mist. Avoid contact with Skin.

Precautionary Statements - Prevention

- 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 face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Do not breathe dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- Wear respiratory protection
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking
- Keep container tightly closed
- Ground/bond container and receiving equipment
- Use explosion-proof electrical/ ventilating/ lighting/ equipment
- Use only non-sparking tools
- Take precautionary measures against static discharge

Precautionary Statements - Storage

- Store locked up
- Store in a well-ventilated place. Keep container tightly closed
- Keep cool

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.

Combustible. Do not use or store near open heat or flame. Keep container closed. Use with adequate ventilation. This product shows potential explosive properties when heated to elevated temperatures.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Other	Proprietary	36.0
Methomyl	16752-77-5	29.0
Cyclohexanone	108-94-1	10.0-30.0
Methanol	67-56-1	5-.0-10.0

SECTION 4. FIRST AID MEASURES

GENERAL

This Product is an N-Methyl Carbamate insecticide.

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

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 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 SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have 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 to an unconscious person.

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 treatment advice.

ATROPINE IS AN ANTIDOTE -- SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), 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 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 SP METHOMYL INSECTICIDE alone. However, for exposure to combinations of LEMUR SP METHOMYL and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

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

You may also contact the National Poison Control Center 24-hr Emergency Hotline at: **1-800-222-1222**.

SECTION 5. FIRE FIGHTING MEASURES

FIRE EXTINGUISHING EQUIPMENT:

Water, Dry Chemical powder, foam Carbon dioxide (CO2)

FIRE AND EXPLOSION HAZARDS:

Hazardous decomposition products may be released during prolonged heating including Carbon monoxide, carbon dioxide, smoke, sulfur oxides, methyl isocyanate and hydrogen cyanide

Product is not explosive. (Shows potential explosive properties when heated to elevated temperatures)

The product is stable at normal handling and storage conditions.

PPE FOR FIREFIGHTERS/FIRE FIGHTING INSTRUCTIONS:

In the event of fire, wear self-contained breathing apparatus. Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Dike area to prevent runoff and contamination of water sources. Equipment or materials involved in pesticide fires may become contaminated.

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Wear appropriate personal protective equipment (PPE) : goggles, protective gloves/clothing, approved particulate respirator (see Section 8). Soak up with sawdust, sand, oil dry or other absorbent material. Shovel or sweep up and dispose of in accordance with federal, state and local regulations. 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.

EMERGENCY PROCEDURES

Avoid contact with spilled material. Do not allow product to enter streams, sewers or other waterways. Wear appropriate personal protective equipment (PPE) : goggles, protective gloves/clothing, approved particulate respirator (see Section 8).

METHODS FOR CLEANING UP

Soak up with sawdust, sand, oil dry or other absorbent material. Shovel or sweep up. up and dispose of in accordance with federal, state and local regulations. Clean contaminated floors and objects thoroughly, observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

HANDLING PROCEDURES

Combustible/Flammable. Shows potential explosive properties when heated to elevated temperatures. Do not use or store near heat or open flame. Keep container closed. Use with adequate ventilation. 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

Store in original container. Store in a cool, dry place (Above 32 °F). Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Keep out of the 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. As soon as possible, wash thoroughly and change into clean clothing

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS

Methomyl

PEL: (OSHA) 2.5 mg/m³ 8 hr. TWA

TLV (ACGIH) 2.5 mg/m³ TWA
(skin absorber)

Methanol

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

TLV (ACGIH) 250 ppm STEL (Skin designation)

TLV (ACGIH) 200 ppm TWA

IDLH(NIOSH): 6000 ppm

Cyclohexanone

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

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

IDLH (NIOSH): 700 PPM

TLV (ACGIH) 50 ppm STEL

TLV (ACGIH) 20 ppm TWA (Skin designation)

ENGINEERING CONTROLS

Use only with adequate ventilation. Keep container tightly closed.

PERSONAL PROTECTIVE EQUIPMENT

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

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as natural rubber or other materials in EPA category C.
- 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.

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.

Pilots must not assist in the mixing and loading operations.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear Blue Liquid
Odor	Aromatic
Melting Point	Not applicable
Boiling Point	Not available
Vapor Pressure	~17 mmHg
Density	1.03g/ml(25 °C)
Solubility	Disperses
pH	6.33
Vapor Density	Not available
Volatility	Not available
Log Pow	Not available
Log Kow	2.3 (active ingredient)
Flammability	Not available
Lower explosion limit (LEL)	Not available
Upper explosion limit (UEL)	Not available
Explosive Properties	Non explosive
Oxidizing Properties	Non oxidizing
Flash point	105.9 °F (41 °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

Strong acids, strong bases and oxidizing agents.

Decomposition:

Thermal decomposition products include: Carbon Monoxide, Carbon Dioxide, Smoke, sulfur oxides, methylisocyanate and HCN (Hydrogen Cyanide).

SECTION 11. TOXICOLOGICAL INFORMATION

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 and seek medical attention at once. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. May result in permanent damage including blindness.

Inhalation May be fatal if inhaled.
Eye contact Corrosive to the eyes and may cause severe damage including blindness. Inhalation, ingestion, or skin absorption of methanol can cause blindness.
Skin contact Harmful in contact with skin. May be absorbed through the skin in harmful amounts.
Ingestion May be fatal if swallowed.
Component Information Inhalation, ingestion, or skin absorption of methanol can cause blindness

ACUTE TOXICITY:

Acute oral LD50 55-74 mg/kg rat
Acute dermal LD50 >2000mg/kg rabbit
Acute inhalation LC50 0.053-0.351.1 mg/L in rats (4h)
Eye irritation Severely irritating to eyes (note – methomyl may be fatal if it gets in eyes).
Skin irritation Slightly irritating to skin
Skin sensitization Not a sensitizer (guinea pig)

SUB-CHRONIC AND CHRONIC TOXICITY

Carcinogenicity: Methomyl: IARC Group 2A (probable to humans); Cyclohexanone: ACGIH A3 (animal) and IARC Group 3.

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.

Specific Target Organ

Toxin – Single Exposure: Methanol may cause blindness if ingested or absorbed through skin. Central Nervous system.

Specific Target Organ

Toxin – Repeat Exposure: No Information available.

Aspiration Hazard: Not classified

STOT - single exposure Specific target organ toxicity (STOT) - single exposure, category 1. Target Organs. Eyes. Central nervous system.

Chronic toxicity Avoid repeated exposure. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.

Target Organ Effects Central nervous system, Central Vascular System (CVS), Eyes, Gastrointestinal tract (GI), Respiratory system, blood, kidney, liver.

Aspiration hazard Based on available data, the classification criteria are not met.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 40.00 mg/kg
ATEmix (dermal) 912.00 mg/kg
ATEmix (inhalation-dust/mist) 2.80 mg/l
ATEmix (inhalation-vapor) 28,306.00 mg/l

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 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 over-laying tile drainage systems that drain to surface water.

ECOTOXICITY (ACUTE) – ACTIVE INGREDIENT

Aquatic toxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Methomyl 16752-77-5	-	2.11: 96 h Pimephales promelas mg/L LC50 flow-through 1.2: 96 h Oncorhynchus mykiss mg/L LC50 static 0.71: 96 h Lepomis macrochirus mg/L LC50 static	0.0041 - 0.019: 48 h Daphnia magna mg/L EC50 Static
Cyclohexanone 108-94-1	20: 96 h Chlorella vulgaris mg/L EC50	481 - 578: 96 h Pimephales promelas mg/L LC50 flow-through 8.9: 96 h Pimephales promelas mg/L LC50	800: 24 h Daphnia magna mg/L EC50
Methyl alcohol 67-56-1	-	100: 96 h Pimephales promelas mg/L LC50 static 28200: 96 h Pimephales promelas mg/L LC50 flow-through 19500 - 20700: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 13500 - 17600: 96 h Lepomis macrochirus mg/L LC50 flow-through 18 - 20: 96 h Oncorhynchus mykiss mL/L LC50 static	-

Mobility

Not available.

Persistence and Degradability:

Not readily biodegradable.

Bioaccumulative Potential:

Not available.

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 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.

Consult container label for specific disposal instructions.

SECTION 14. TRANSPORT INFORMATION

GROUND TRANSPORT (US DOT)

Proper shipping name Carbamate Pesticide, Liquid, Toxic, Flammable
NOTE - For containers with a net quantity of 344 LBS or more, the descriptive text/designation "RQ" is required either before or after the shipping description

UN number 2991

Class 6.1(3)

Packing group III

Marine pollutant Yes (Methomyl – DOT Listed)

MARITIME TRANSPORT

IMDG: Proper shipping name Carbamate Pesticide, Liquid, Toxic, Flammable

UN number 2991

Class 6.1(3)

Packing group III
Marine pollutant Yes
RQ


AIR TRANSPORT (IATA)-INTERNATIONAL

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

SECTION 15. REGULATORY INFORMATION

FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Symbol :  (Skull and Crossbones)
Signal word : **DANGER**
Hazard statements: Contains Methanol. Methanol may cause blindness. Corrosive. Causes irreversible eye damage. May be fatal if swallowed or if inhaled. Harmful if absorbed through skin.
Precautionary statements: Do not get in eyes or on clothing. Do not breathe spray mist. Avoid contact with skin.

SARA 313 Regulated Chemical(s): Methanol

Title III hazard classification:
Acute Health Hazard: Yes
Chronic Health Hazard: Yes
Fire: No
Reactivity/Physical hazard: No
Pressure: No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

California Prop. 65 Regulated Chemical(s):

Warning: Contains a chemical (methanol) known to the State of California to cause cancer, birth defects or other reproductive harm.

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Haardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Methomyl 16752-77-5	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ
Cyclohexanone 108-94-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Methyl alcohol 67-56-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

SECTION 16. OTHER INFORMATION

NFPA Rating	NPCA-HMIS Rating
Health : 3	Health : 3
Flammability : 2	Flammability : 2
Reactivity : 0	Reactivity : 0

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

Revision Date : 03-31-17