



Safety Data Sheet

LUNGE - Reg. No: L 10733 (Act No 36 of 1947)

Date of issue: 11/10/2019

1) IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER.	
Product name:	LUNGE
Other means of identification:	Methomyl 900 g/kg SP
UN number:	2757
Recommended use:	Insecticide
Restrictions on use:	Agriculture
Distributed by:	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 0866901386 MOBILE: 0834006056 www.agritech.co.za
Emergency Number:	POISON CENTRE (UNITAS HOSPITAL) 012 664 1100 WESTERN CAPE POISONS TELEPHONE SERVICE 0861 555 777 RAPID SPILL RESPONSE 0800 775 3305 GRIFFON POISON CENTRE: 082 446 8946
Chemical Name:	S-methyl (EZ)-N-(methylcarbamoyloxy)thioacetimidate
2) Classification of the substance / mixture:	
Classification of the product:	Physical hazards: N/A Health hazards: Very toxic. Acute oral toxicity: Category 2 (H300) Skin irritation: Irritant Specific target organ toxicity – repeated exposure: Category 3 (H336) Aquatic Acute 1: H 400 Aquatic chronic 1: H410 Full text of symbols and R-phrases: see section 15.
Label elements:	  Signal word: Danger Hazard Statements: H300 - Fatal if swallowed H400 - Very toxic to aquatic life H410 - Very toxic to aquatic life with long-lasting effects Precautionary Statements

	P264 - Wash hands thoroughly after handling. P273 - Avoid release to the environment P280 - Wear protective gloves. P312 - Call a POISON CENTER or doctor / physician if you feel unwell. P362 - Take off contaminated clothing. P364 - Wash contaminated clothing before reuse. P391 - Collect spillage. P501 - Dispose of contents / container as hazardous waste				
Health effects: eyes:	Irritant				
Health effects: skin:	Irritant				
Health effects: ingestion	Toxic				
Health effects: inhalation	Irritant				
Health effects: Other	No data available				
3) COMPOSITION / INFORMATION ON INGREDIENTS:					
Mixture:					
Chemical name	% composition	CAS No.	EC No.	Classification according to Regulation EC 1272/2008 (CLP)	Classification according to 67/548/EEC
Methomyl	90%	16752-77-5	240-815-0	Aquatic Acute 1: H400 Acute chronic aquatic toxicity: H410 Acute Tox. 2: H300	No data available
Full text of R- and S-phrases: see section 15.					
4) First Aid Measures:					
Eye contact:	Remove any contact lenses and flush eyes with plenty of clean water or saline solution for at least 15 minutes holding eyelids open if necessary. Seek medical assistance immediately.				
Skin contact:	Remove contaminated clothing and footwear. Wash affected areas with soap and water for at least 15 minutes. Do not rub skin. Cover the irritated skin with an emoliant. Cold water may be used. Wash clothing and shoes before re-use Seek medical assistance immediately.				
Ingestion:	Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting unless directed to by medical personnel For advice, contact the National Poisons Centre. Loosen tight clothing such as a collar, tie, belt or waistband. Seek medical assistance immediately.				
Inhalation:	Remove patient to fresh air. Lie down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.				
Most important symptoms and effects, acute and delayed:	This product is a cholinesterase inhibitor carbamates. Symptoms: Nausea, weakness, constriction of pupils, slow pulse, sweating, muscle twitching.				
Indication of immediate medical attention and special treatment needed: Advice to physician	If the consciousness level declines, or vomiting has not occurred within 15 minutes, empty the stomach by gastric lavage with the aid of a cuffed endotracheal tube using isotonic saline or 5% sodium bicarbonate, followed by activated charcoal. Establish and maintain a clear airway. Treat respiratory difficulty with artificial respiration and oxygen. Administer atropine sulphate as an antidote until complete atropinisation. Morphine, 2-PAM and oxime therapy are contra-indicated. However, for exposure to both LUNGE and an				

	<p>organophosphate insecticide, 2 PAM may be used as required to supplement the atropine sulphate treatment as described.</p> <p>Administer atropine sulphate intravenously or intramuscularly if IV injection is not possible. In moderately severe poisoning administer atropine sulphate, 0.4 to 2.0 mg repeated every 15 minutes, until atropinisation is achieved (tachycardia, flushing, dry mouth, mydriasis). Maintain atropinisation by repeated doses for 2 to 12 hours, or longer, depending on the severity of poisoning.</p> <p>Severely poisoned individuals may exhibit remarkable tolerance to atropine. In these cases, two or more times the dosages suggested above may be needed. Observe the treated patient closely for at least 24 hours to ensure that the symptoms (and possibly pulmonary oedema) do not recur as atropinisation wears off.</p> <p>In very severe poisonings, metabolic disposition of the toxicant may require several hours, or days, during which atropinisation must be maintained. Marked lower levels of urinary metabolites indicate that the atropine dosage can be tapered off. As the dosage is reduced, check the lung bases frequently for rales. If rales are heard, or other symptoms return, promptly re-establish atropinisation.</p>
5) Fire-Fighting Measures:	
Suitable extinguishing media:	<p>Small fire: Dry chemical powder</p> <p>Large fire: Alcohol foam, water spray or fog</p>
Unsuitable extinguishing media:	Avoid the use of a solid water stream as this may cause spreading.
Special hazards arising from the substance or mixture:	Burning chemicals may produce carbon oxides, nitrogen oxides, sulfur oxides.
Fire-fighting:	<p>Cool the containing vessels with water in order to prevent pressure build-up, autoignition or explosion.</p> <p>Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire.</p> <p>Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. If area is heavily exposed to fire and conditions permit, let fire burn itself out. Contain fire control agents for later disposal.</p> <p>Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal. Do not scatter the material. Avoid pollution of waterways.</p>
Protective clothing:	Full protective clothing and self-contained breathing apparatus
6) Accidental Release Measures:	
Personal precautions:	Avoid contact with skin and eyes. Do not breathe in spray or fumes. For personal protection see Section 8.
Environmental precautions:	Prevent further leakage or spillage if safe to do so. Use an appropriate container in order to avoid environmental contamination. Do not flush into the surface water or the sanitary sewer system. Do not allow this material to contaminate the ground water system. If spillages cannot be contained, advise the local authorities. If the product contaminates rivers and lakes or drains, inform the respective authorities.
Cleaning procedure:	<p>Wear protective clothing. Clear area of unprotected personnel and keep unprotected personnel upwind.</p> <p>Do not flush with water. For dry spills. Vacuum with an industrial vacuum cleaner with a 0.3 m filter, or sweep up with damp earth, sand or other suitable inert absorbent, taking care not to raise a dust cloud. Where the product comes into contact with water, contain the contaminated water. Transfer to a suitable, labelled container for later safe disposal according to local / national</p>

<p><u>PERSONAL PROTECTIVE EQUIPMENT:</u></p> <p>Clothing:</p> <p>Gloves:</p> <p>Eye protection:</p> <p>Respiratory protection:</p> <p>Emergency eye wash:</p>	<p>Consult supplier to confirm that the equipment is suitable.</p> <p>Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.</p> <p>Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance.</p> <p>The use of safety goggles with side shields and/or full face shield is recommended.</p> <p>Wear a suitable vapour respirator.</p> <p>Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.</p>
9) Physical & Chemical Properties:	
<p>Form:</p> <p>Colour:</p> <p>Odour:</p> <p>Odour threshold:</p> <p>pH:</p> <p>Melting point / Freezing point</p> <p>Initial boiling point and boiling range</p> <p>Flash point:</p> <p>Evaporation rate:</p> <p>Flammability (solid, gas)</p> <p>Upper/ lower flammability or explosive limits:</p> <p>Vapour pressure:</p> <p>Vapour density:</p> <p>Relative density:</p> <p>Solubility(ies)</p> <p>Partition coefficient: n-octanol/water</p> <p>Auto-ignition temperature:</p> <p>Viscosity:</p>	<p>Powder</p> <p>White</p> <p>Characteristic</p> <p>No data available</p> <p>6.8 – 7.2</p> <p>No data available</p> <p>No data available</p> <p>No data available</p> <p>No data available</p> <p>No data available</p> <p>Not applicable</p> <p>Not explosive</p> <p>No data available</p> <p>No data available</p> <p>No applicable</p> <p>Soluble in water.</p> <p>No data available</p> <p>No data available</p> <p>No data available</p>
10) Stability & Reactivity:	
<p>Reactivity:</p> <p>Chemical stability:</p> <p>Hazardous decomposition product(s):</p> <p>Conditions to avoid:</p> <p>Incompatible materials:</p>	<p>Highly reactive with oxidizing agents Slightly reactive with alkalis Non-reactive with reducing agents, combustible materials, metals, acids, moisture.</p> <p>When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.</p> <p>Carbon oxides, nitrogen oxides, sulphur oxides.</p> <p>No data available</p> <p>Alkaline materials, oxidizing agents.</p>
11) Toxicological Information:	

Acute:

Oral LD50 30 mg/kg for rats

Dermal LD50 > 2000 ml/kg

Inhalation LC50 (4h): >0. 258 ml/kg for rats (technical material).

Aspiration hazard – No data available

Skin irritation : Irritant

Eye irritation : Irritant

Sensitisation : Not a skin sensitizer (guinea pigs).

Other : No data available.

Persistence and degradability:

In rats, rapidly absorbed, extensively metabolised and readily excreted as volatile metabolites (acetonitrile and CO₂) or polar metabolites in the urine. Three major metabolic pathways are displacement of S-methyl by glutathione followed by transformation to the mercapturic acid derivative; hydrolysis of the carbamate ester to the oxime, with further metabolism of the oxime to CO₂; and isomerisation/Beckmann rearrangement of which leads to the formation of acetonitrile. Minor metabolites also observed were acetic acid, acetamide, thiocyanate, and a sulfate conjugate of the oxime (EHC 178). Plants DT50 following leaf application c. 3–5 d. Rapidly degraded to CO₂ and acetonitrile, with incorporation into natural plant components. Rapidly degraded in soil. DT50 4–8 d at 20 °C and soil moisture pF 2–2.5 in soils with pH from 5.1 to 7.8 and with 1.2 to 3.6% o.m. DT50 in groundwater samples <0.2 d

Bioaccumulative Potential:

In rats, Methomyl was rapidly converted to Methomyl methylol, oxime, sulfoxide and sulfoxide oxime. These unstable intermediates were converted to acetonitrile and CO₂ which were eliminated primarily via respiration and in the urine. In plants, after leaf applications, the DT50 was approximately 3 to 5 days. Methomyl was rapidly degraded to CO₂ and acetonitrile, with incorporation into natural plant components

Mobility in Soil: Product dissolves readily and is mobile in soil.

Other adverse effects: None known.

12) Ecological Information:

Information below based on active ingredient:

Bees: Toxic to bees; LD₅₀ (oral) 0.28 µg/bee; (contact) 0.16 µg/bee. No hazard to honeybees after spray residues have dried.

Birds: : Acute oral LD₅₀ for northern bobwhite quail 24.2 mg/kg b.w. Dietary LC₅₀ (8 d) for northern bobwhite quail 5620, mallard ducks 1780 mg/kg diet.

Fish : LC₅₀ (96 h) for rainbow trout 2.49, bluegill sunfish 0.63 mg/l.

Daphnia: LC₅₀ (48 h) 17 µg/l.

Algae : EC₅₀ (72 h) for *Selenastrum capricornutum* >100 mg/l.

Worms: LC₅₀ (14 d) for *Eisenia foetida* 21 mg/kg dry soil.

Other beneficial species: No data available

13) Disposal Considerations:

Waste Disposal:

In accordance with local and national regulations. Open dumping or burning of this product is prohibited.

Waste generated from the use of this product cannot be reused or re-processed.

Never pour untreated waste or surplus products into public sewers or where there is a danger of run-off or seepage into any water systems.

Do not contaminate rivers, dams or other water sources with the product or used containers.

Container disposal

All containers and packaging must be completely emptied before disposal. Shake out thoroughly into the mixing or spray tank before destroying the empty container.

Product Disposal: Dispose of rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

- Prevent contamination of food, feeds, drinking water and eating utensils.

Keep children and animals away from stacked and waste material.

14) Transportation Information:

UN Number: 2757

Road transport ADR/RID

Class: 6.1

Packaging group: II

Shipping name: Carbamate pesticide, solid, toxic , N. O. S (Methomyl)

Air transport: ICAO / IATA

Class: 6.1

Packaging group: II

Shipping name: Carbamate pesticide, solid, toxic , N. O. S (Methomyl)

Marine pollutant: Yes

Maritime transport: IMDG

Class: 6.1

Packaging group: II

Shipping name: Carbamate pesticide, solid, toxic , N. O. S (Methomyl)

Marine pollutant: Yes

15) Regulatory Information:

Symbols: T – Toxic

N – Dangerous for the environment

Risk – Phrase:

R26/27/28 – Very toxic by inhalation, in contact with skin and if swallowed.

R36 – Irritating to eyes.

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety – Phrase:

S1/2 - Keep locked up and out of reach of children.

S13 - Keep away from food, drink, and animal feedstuffs S20/21 – When using, do not eat, drink or smoke.

S20/21 - When using, do not eat, drink or smoke.

S28 – after contact with skin, wash immediately with plenty of water.

S35 - This material and its container must be disposed of in a safe way

S36/37 – wear suitable protective clothing and gloves.

S45 – in case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

S46 - If swallowed, seek medical advice immediately and show this container or label. S57 – Use appropriate container to avoid environmental contamination.

S 53 – Avoid exposure – obtain special instructions before use.

Hazard Statements:

H300 - Fatal if swallowed

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long-lasting effects

Precautionary Statements

P264 - Wash hands thoroughly after handling.

P273 - Avoid release to the environment

P280 - Wear protective gloves.

P312 - Call a POISON CENTER or doctor / physician if you feel unwell.

P362 - Take off contaminated clothing.

P364 - Wash contaminated clothing before reuse.

P391 - Collect spillage.

P501 - Dispose of contents / container as hazardous waste

16. Other Information

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

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