

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 PRODUCT IDENTIFIER:

TRADE NAME: MALATHION GRAIN PROTECTOR DUST

1.2 RECOMMENDED USE: GROUP 1B INSECTICIDE

1.3 MANUFACTURED FOR AND DISTRIBUTED BY:

LOVELAND PRODUCTS CANADA, INC.
789 DONNYBROOK DRIVE • DORCHESTER, ONTARIO N0L 1G5

1.4 24 Hour Emergency Phone: (Chemtrec): 1-800-424-9300 (Toll Free) - Additional Emergency Phone 1-800-561-8273

Loveland Technical Service: 1-800-328-4678

U.S. Coast Guard National Response Center: 1-800-424-8802

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Acute Toxicity – Oral	Category 4	H302
Acute Toxicity – Inhalation (Dusts/Mists)	Category 3	H331
Skin Sensitization	Category 1	H317
Carcinogenicity	Category 1B	H350

2.2 Label elements



Signal word: DANGER
 Hazard Statement: H302 – Harmful if swallowed.
 H317 – May cause an allergic skin reaction.
 H331 – Toxic if inhaled.
 H350 – May cause cancer.

Precautionary Statement: (Prevention): P201 – Obtain special instructions before use.
 P202 – Do not handle until all safety precautions have been read and understood.
 P281 – Use personal protective equipment as required.
 P264 – Wash face, hands, and any exposed skin thoroughly after handling.
 P270 – Do not eat, drink or smoke when using this product.
 P261 – Avoid breathing dust/fume/gas/mist/vapours/spray.
 P271 – Use only outdoors or in a well-ventilated area.
 P272 – Contaminated work clothing should not be allowed out of the workplace.
 P280 – Wear protective gloves.

Precautionary Statement: (Response): P301+P312 – IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
 P302+P352 – IF ON SKIN: Wash with plenty of soap and water.
 P304+P340: IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
 P311 – Call a POISON CENTRE or doctor/physician.
 P330 – Rinse mouth.
 P333+P313 – If skin irritation or rash occurs: Get medical advice/attention.
 P363 – Wash contaminated clothing before reuse.

Precautionary Statement: (Storage): P405 – Store locked up.
 P403+P233 – Store in a well-ventilated place. Keep container tightly closed.



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Precautionary
Statement:
(Disposal)

P501 – Dispose of contents/container to an approved waste disposal to an approved waste disposal facility.

2.3 Other hazards
None known.

3. COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

Chemical Name:	CAS No.	Concentration [%]
Malathion	121-75-5	2.00
Amorphous silicon dioxide	7631-86-9	4.10

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

- 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 centre 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 centre 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 centre or doctor for treatment advice.
- If Swallowed:** Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: No information available.

4.3 Immediate Medical Attention and Special Treatment

Treatment: This product is an organophosphate that is a cholinesterase inhibitor.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-561-8273

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

NOTES TO PHYSICIAN: Typical symptoms of overexposure to cholinesterase inhibitors include headache, nausea, dizziness, sweating, salivation, runny nose and eyes. This may progress to muscle twitching, weakness, tremor, incoordination, vomiting, abdominal cramps and diarrhea in more serious poisonings. A life-threatening poisoning is signified by loss of consciousness, incontinence, convulsions and respiratory depression with a secondary cardiovascular component. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate degree of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as pralidoxime chloride, may be therapeutic if used early; however, use only in conjunction with atropine. In cases of severe acute poisoning, use antidotes immediately after establishing an open airway and respiration. With oral exposure, the decision of whether to induce vomiting or not should be made by an attending physician.



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5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Use medium appropriate to surrounding fire. Foam, carbon dioxide (CO₂), dry chemical, soft stream or water fog.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep personnel out of low areas. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. Eliminate all sources of ignition in vicinity of spill or released vapour to avoid fire or explosion. Dust explosion hazard. Keep out of sewers. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: This pesticide is toxic to aquatic organisms and birds. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark except as noted on appropriate labels. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: Use personal protective equipment as required. Cover powder spill with plastic sheet or suitable other protection to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Never return spills to original containers for re-use.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling: Avoid contact with skin, eyes, or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/mist/vapours/spray.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: Keep container tightly closed in a dry and well-ventilated place. Keep out of reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**8.1 CONTROL PARAMETERS:
OCCUPATIONAL EXPOSURE LIMITS**

Components	Type	Value
Malathion	TLV	1 mg/m ³ (Skin) Measured as inhalable fraction and vapour

Biological limit values

ACGIH Biological Exposure Indices Determinant	Value	Specimen
Acetylcholinesterase inhibiting pesticides	70% of individual's baseline 60% of individual's baseline	Cholinesterase activity in red blood cells Butyrylcholinesterase activity in serum or plasma



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8.2 EXPOSURE CONTROLS:

Engineering Measures

Individual Protection Measures:

Eye / Face Protection: Goggles or shielded safety glasses are recommended.
Skin Protection: Long-sleeved shirt and long pants. Shoes plus socks. Chemical-resistant gloves, except for pilots. Chemical-resistant apron for mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.
Respiratory Protection: In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment. Wear respiratory protection during operations where spraying or misting occurs. Wear NIOSH-certified air-purifying respiratory protection with an N, P or R95 or HE class filter and organic vapour cartridge if necessary. Wear air supplied respiratory protection if exposure concentrations are unknown or if air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE: Solid
ODOUR: Slight mercaptan.
ODOUR THRESHOLD: No data available.
COLOUR: Off-white to light tan.
pH: No data available
MELTING POINT / FREEZING POINT: No data available
BOILING POINT: No data available
FLASH POINT: No data available
FLAMMABILITY (solid, gas): No data available.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available
VAPOUR PRESSURE: No data available.
SOLUBILITY: Insoluble.
PARTITION CO-EFFICIENT, n-OCTANOL / WATER: No data available.
AUTO-IGNITION TEMPERATURE: No data available.
DECOMPOSITION TEMPERATURE: No data available.
VISCOSITY [Dynamic]: No data available.
SPECIFIC GRAVITY (Water = 1): 0.48 – 0.64 g/ml
DENSITY: 480 - 640 kg/m³

Note: These physical data are typical values based on material tested but may vary from sample to sample.
Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

10.1 REACTIVITY

Stable

10.2 CHEMICAL STABILITY

Unstable at elevated temperatures.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Will not polymerize.

10.4 CONDITIONS TO AVOID

Extremes of temperature and direct sunlight.

10.5 INCOMPATIBLE MATERIALS

Avoid contact with strong bases, strong oxidizing agents and strong acids.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

None known.

11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE

Ingestion. Eye contact. Inhalation.

LC₅₀ (rat): Malathion: 43790 µ/m³ (4 HR).

LD₅₀ Oral (rat): Malathion: 1390 mg/kg

LD₅₀ Dermal (rabbit): Malathion: 4100 mg/kg

Acute Toxicity Estimates: No data available

Skin Irritation (rabbit): No data available.

Eye Irritation (rabbit): No data available.

Specific Target Organ Toxicity: Blood, Central Nervous System, Central vascular system, Eye damage/irritation, Liver, Respiratory system, skin, Gastrointestinal tract (GI).

Aspiration: No data available.

Skin Sensitization (guinea pig): Skin sensitizer – Category 1



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Carcinogenicity: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen) | IARC 3 (Unclassifiable as to carcinogenicity in humans).
Germ Cell Mutagenicity: Minimal genetic toxicity potential.
Interactive Effects: None known.

12 ECOLOGICAL INFORMATION

12.3 ECOTOXICITY

The product is toxic to aquatic organisms and birds.

Ecotoxicological Data

	Species	Test Results
Malathion	Fathead minnow	12.3 – 16.1 mg/L – 96-hour LC ₅₀
	Oncorhynchus mykiss	0.18 mg/L – 96-hour LC ₅₀
	Daphnia magna	0.014 mg/L – 48-hour EC ₅₀
	Bees	0.38 µg/bee – LD ₅₀ acute oral
	Bees	0.27 µg/bee – LD ₅₀ topical

Drift or runoff may adversely affect non-target plants.
 Do not apply directly to water.
 Do not contaminate water when disposing of equipment wash water.
 Do not apply when weather conditions favor drift from target area.

12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: No data available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available.

12.4 MOBILITY IN SOIL

No data available.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

13 DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Empty contents of the container thoroughly. Follow provincial instructions for any required additional cleaning of the container prior to its disposal. Make the empty container unsuitable for further use. Dispose of the container in accordance with provincial requirements. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

14 TRANSPORT INFORMATION

14.3 LAND TRANSPORT

TDG Shipping Description: Not Regulated

15 REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

NFPA & HMIS Hazard Ratings:

NFPA		HMIS	
2	Health	0	Least
1	Flammability	1	Slight
0	Instability	2	Moderate
		3	High
		4	Severe
		2	Health
		1	Flammability
		0	Reactivity
		E	PPE

SARA Hazard Notification/Reporting

SARA Title III Hazard Category:	Immediate	<u>Y</u>	Fire	<u>Y</u>	Sudden Release of Pressure	<u>N</u>
	Delayed	<u>N</u>	Reactive	<u>N</u>		

Reportable Quantity (RQ) under U.S. CERCLA: Malathion (CAS: 121-75-5) 100 pounds

SARA, Title III, Section 313: Malathion (CAS: 121-75-5) 2.00%

RCRA Waste Code: Not listed.

CA Proposition 65: Not applicable



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WHMIS [Canada]: Pest control products are not controlled under WHMIS. Classified D2B
OPAC Schedule 3

Read the approved label, authorized under the Pest Control Products Act, prior to handling the pest control product.

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labeling requirements under the Pest Control Products Act. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. Following is the hazard information required on the pest control product label.

Warning – contains the allergen wheat.

16 OTHER INFORMATION

SDS STATUS: Format revised.

PREPARED BY: Product Stewardship and Regulatory Affairs

REVIEWED BY: Safety, Health and Environment

PCP (Pest Control Products Act) Registration No. 15896

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