

IN CASE OF EMERGENCY DUE TO A MAJOR SPILL, FIRE OR POISONING INVOLVING THIS PRODUCT CALL DAY OR NIGHT, 1-800-561-8273 or CHEMTREC 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

MANUFACTURED FOR:

LOVELAND PRODUCTS CANADA, INC.
789 Donnybrook Drive • Dorchester, Ontario N0L 1G5

24-Hour Emergency Phone: 1-800-561-8273
Additional Emergency Phone (Canutec): 1-613-996-6666 (Collect)

CHEMICAL IDENTITY: Naled: 1,2-dibromo-2,2-dichloroethyl dimethyl phosphate
PRODUCT USE: Insecticide – Group 1B
PCP REG. NO.: 7442
MSDS Number: 7442-12-LPI

MSDS Revisions: Sections 1, 14

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2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – DANGER- POISON – Concentrate may cause skin damage. Avoid contact with skin, eyes or clothing. Harmful if swallowed. Avoid breathing spray mist. Use waterproof gloves and face shield when handling concentrate. Wash thoroughly with soap and water after handling. Primary routes of entry are Inhalation, eye contact and skin contact.

This product is a colourless to amber liquid with an aromatic solvent odour.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Naled	62.00 (864 g/L)	300-76-5	0.1 mg/m ³
DDVP	<1.00	62-73-7	0.1 mg/m ³
Other Ingredients, including Naphthalene	38.00	91-20-3	52 mg/m ³

4. FIRST AID MEASURES

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 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 swallowed:	Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water containing 2 tbsp. of activated charcoal 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.
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 further treatment advice.
NOTE TO PHYSICIAN:	This product is an Organophosphate Insecticide, a cholinesterase inhibitor. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate significance of exposure (baseline data are useful). Atropine sulfate, only by injection, is the preferred antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early but only in conjunction with Atropine sulfate. In case of severe acute poisoning, use antidote immediately after establishing an open airway and respiration. This product contains light hydrocarbon liquid – vomiting may cause aspiration pneumonia.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-561-8273. Have the product label or container with you when calling a poison control centre or doctor, or going for treatment.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method):	149°F / 65°C (Closed Cup)
FLAMMABLE LIMITS (LFL & UFL):	Not established
EXTINGUISHING MEDIA:	Foam, dry chemical, carbon dioxide, and water spray (fog).
HAZARDOUS COMBUSTION PRODUCTS:	This product will emit toxic fumes when burned, including hydrogen chloride, hydrogen bromide, phosphorous oxides, and oxides of carbon.
SPECIAL FIRE FIGHTING PROCEDURES:	Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	This is a Combustible Liquid. Fire hazard increases as liquid temperature rises above 149°F (65°C) Explosive mixtures can form at temperatures at or above flashpoint. Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion. If water is used to fight fire or cool containers, dike to prevent runoff and contamination of municipal sewers and waterways.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

For small spills, absorb with an absorbent material such as pet litter. Sweep up and transfer to containers for possible land application according to label use or for proper disposal. Check local or provincial regulations for proper disposal. Flush the area with water to remove any residue.

CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

HANDLING: 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 PPE after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Store in a cool, dry place. Keep pesticide in original container. Not for use or storage in or around the home. KEEP AWAY FROM CHILDREN. Do not store diluted spray. Do not store near heat or open flame. Do not contaminate water, food, or feed by storage or disposal.

Personal Protective Equipment: Applicators and other handlers must wear: long sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber or Viton®, shoes plus socks, and protective eyewear. Follow manufacturer’s instructions for cleaning and maintaining PPE. If no instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Not normally required.

RESPIRATORY PROTECTION: Not normally required, if vapors or mists exceed acceptable levels, wear a NIOSH approved pesticide respirator.

EYE PROTECTION: Chemical goggles or shielded safety glasses.

SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, shoes with socks. Wear chemical-resistant gloves.

	OSHA PEL 8 hr TWA	ACGIH TLV-TWA
Naled	3 mg/m ³	0.1 mg/m ³
DDVP (Dichlorvos)	1 mg/m ³ (skin)	0.1 mg/m ³
Naphthalene	50 mg/m ³	52 mg/m ³ (skin)

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOUR: Colourless to amber liquid with an aromatic solvent odour.

SPECIFIC GRAVITY (Water = 1): 1.424 – 1.454 g/ml

VAPOUR PRESSURE: 10 mm Hg @ 37.8°C (100°F)

PERCENT VOLATILE (by volume): 27.5%

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.

BULK DENSITY: 1.424 – 1.454 kg/L

BOILING POINT: 160°C / 320°F

EVAPORATION RATE: Not established

SOLUBILITY: Emulsifies

pH: Not established

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: May be photochemically reactive.

INCOMPATIBILITY: Unstable in the presence of iron or alkaline media. Corrosive to iron, aluminum and magnesium. Hydrolyzes slowly under neutral or acidic conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Heating product to decomposition will cause emission of acrid smoke and fumes of hydrogen chloride, hydrogen bromide, phosphorous oxides, oxides of carbon and unknown organic compounds.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (female rat): 235 mg/kg (Technical)

Eye Irritation (rabbit): Extreme irritation (Technical)

Inhalation LC₅₀ (male rat) : 1.51 mg/L (4 hr, nose only) (Technical).

Carcinogenic Potential: OSHA lists Naled, DDVP, and Naphthalene in 1910.1000, Subpart Z; NTP lists Naphthalene as Reasonably Anticipated To Be a Human Carcinogen; IARC lists DDVP (Dichlorvos) as 2B: Possibly Carcinogenic to Humans; ACGIH lists Naled, DDVP, and Naphthalene as TLV-A4: Not Classifiable as a Human Carcinogen.

Acute Dermal LD₅₀ (rabbit) : > 5050 mg/kg (Technical)

Skin Irritation (rabbit): Corrosive (Technical)

Skin Sensitization (Guinea Pig): Not a sensitizer (Technical).

12. ECOLOGICAL INFORMATION

Naled is toxic to fish, birds, and other wildlife. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply this product within 24 hours following rainfall or irrigation, or in areas where intense or sustained rainfall is forecasted to occur within 24 hours following application. Drift and runoff may be hazardous to aquatic organisms in areas near the application site. Do not contaminate water when disposing of equipment wash waters or rinsate. 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 if bees are visiting the treatment area.

13. DISPOSAL CONSIDERATIONS

Do not reuse containers for any purpose. This product is acutely hazardous. Container is recyclable, and is to be disposed of at a container collection site. Contact your local dealer/distributor for the location of the nearest collection site. Before taking container to the collection site: Triple or pressure-rinse the empty container, adding the rinsate to the spray tank. Make the empty container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Do not contaminate water, food, or feed by storage or disposal.

14. TRANSPORT INFORMATION

DOT/TDG Shipping Description: RQ CORROSIVE LIQUIDS, TOXIC, N.O.S. (NALED), 8 (6.1), UN 2922, III, MARINE POLLUTANT, ERG GUIDE 152

U.S. Surface Freight Classification: INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS, NOI, OR VERMIN EXTERMINATORS, ANIMAL OR POULTRY, NOI; POISON (NMFC 102100; CLASS: 77.5)

Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:		NFPA		HMIS
3	Health	0	Least	3 Health
2	Flammability	1	Slight	2 Flammability
0	Instability	2	Moderate	0 Reactivity
		3	High	H PPE
		4	Severe	

SARA Hazard Notification/Reporting

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

Reportable Quantity (RQ) under U.S. CERCLA: Naled (CAS: 300-76-5): 10 pounds; DDVP (Dichlorvos) (CAS: 62-73-7): 10 pounds; Naphthalene (CAS: 91-20-3): 100 pounds (calculated in product: 15 pounds)

SARA, Title III, Section 313: Naled (CAS: 300-76-5); DDVP (Dichlorvos) (CAS: 62-73-7); Naphthalene (CAS: 91-20-3)

RCRA Waste Code: Not listed

CA Proposition 65: Not listed

16. OTHER INFORMATION

MSDS STATUS: Sections 1 and 14 revised

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

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