

# MATERIAL SAFETY DATA SHEET

# CHEMINOVA DIMETHOATE 4E

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

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### FORMULATED FOR:

Cheminova, Inc.  
1700 Route 23, Wayne, NJ 07470

Medical Emergencies: 1-866-303-6950

**PRODUCT NAME:** CHEMINOVA DIMETHOATE 4E  
**CHEMICAL NAME:** Dimethoate; (O,O-Dimethyl S-methylcarbamoylmethyl) phosphorodithioate  
**CHEMICAL FAMILY:** Organophosphate Insecticide  
**EPA REG. NO.:** 34704-207-67760  
**MSDS Number:** 000207-03-LPI **MSDS Revisions:** New

**Date Of Issue:** 11/12/03

**Supersedes:** New

## 2. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Dimethoate	43.50	60-51-5	not listed
Cyclohexanone	38.72	108-94-1	50 mg/m <sup>3</sup>
Inert Ingredients*	17.78		

(\*Contains ingredients that are hazardous according to the OSHA Hazard Communication Standard (29 CFR 1910.1200))

## 3. HAZARDS IDENTIFICATION SUMMARY

**KEEP OUT OF REACH OF CHILDREN – WARNING - AVISO – Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle (If you do not understand the label, find someone to explain it to you in detail.)** May be fatal if swallowed. Causes substantial but temporary eye injury. Harmful if absorbed through skin. Wear protective eyewear (goggle, face shield, or safety glasses). Do not get in eyes, on clothing, or on skin.

This product is clear light amber to yellow liquid with a solvent and slight mercaptan odor.

### Warning Statements:

**NOTE TO PHYSICIAN:** This product is an organophosphate (cholinesterase-inhibiting) insecticide. Atropine is antidotal and should be only if symptoms of cholinesterase inhibition are present. In severe cases Pralidoxime chloride (2-PAM; PROTOPAM) may be given as an adjunct to atropine. Use according to label directions. Monitor serum and RBC cholinesterase. Morphine, theophylline, aminophylline, phenothiazines, reserpine, furosemide, or ethacrynic acid are contraindicated in organophosphates poisonings. Administer intravenous fluids cautiously, if needed, to correct dehydration. Symptoms of cholinesterase inhibition include headache, dizziness, blurred vision, weakness, nausea, cramps, diarrhea, discomfort in the chest, nervousness, sweating, miosis, tearing, salivation, pulmonary edema, uncontrollable twitches, convulsions, coma, and loss of reflexes and sphincter control.

## 4. FIRST AID MEASURES

**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 do so by a poison control center 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 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 treatment advice.

**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.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: **1-866-303-6950**. Have the product label or container with you when calling a poison control center or doctor, or going for treatment.

## 5. FIRE FIGHTING MEASURES

**FLASH POINT (°F/Test Method):** >109°F/>42.8°C (PMCC)

**FLAMMABLE LIMITS (LEL & UEL):** None established

**EXTINGUISHING MEDIA:** Dry chemical, carbon dioxide, foam, water spray or fog.

**HAZARDOUS COMBUSTION PRODUCTS:** Oxides of sulfur, phosphorus-containing compounds, carbon monoxide and other unknown hazardous materials may be formed.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained breathing apparatus with full protective clothing. Fight fire from upwind and keep all non-essential personnel out of area.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** If water is used to fight fire and cool the containers, contain run-off by diking to prevent contamination of water supplies. Containers in fire may burst or explode from excessive heat.

## 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. Wash the spill with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container and handle in an approved manner. Check local, state and federal regulations for proper disposal. Flush the area with water to remove any residue. For large spills: contain liquid by diking the area, keep product out of water supplies. If possible, use a pump to pick up liquid, then use absorbent material to absorb any residual liquid. Place both in a chemical container. Flush area with a household bleach and water mixture (1:1) and then absorb the liquid as described above in small spills.

**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. Personnel should use clothing and equipment as outlined below when handling open containers. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**STORAGE:** Do not store below temperature of 45°F/7.3°C. Store in a safe manner. Store in original container only. Keep container tightly closed when not in use.

**EPA HANDLER REQUIREMENTS**  
**Worker Protection Standard – 40 CFR 170**

**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®; chemical-resistant footwear plus socks, protective eyewear and chemical-resistant headgear for overhead exposure. For exposures in enclosed areas, a respirator with organic vapor removing cartridge and 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 canister with any R, P, or HE prefilter. For exposures outdoors, dust/mist filtering respirator NIOSH/MSHA approval number prefix TC-21C, or a NIOSH approved respirator with any R, P, or HE filter. Discard clothing and 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 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:** When handlers used closed systems, enclosed cabs, or aircraft in a manner that meets with the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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

**EYE PROTECTION:** Chemical goggles or shielded safety glasses.

**SKIN PROTECTION:** Wear protective clothing: long-sleeved shirts and pants, hat, rubber boots with socks. Wear rubber or chemical-resistant gloves.

	<b>OSHA PEL 8 hr TWA</b>	<b>ACGIH TLV-TWA</b>
Cyclohexanone	200 mg/m <sup>3</sup>	50 mg/m <sup>3</sup> (Skin)
Xylene	435 mg/m <sup>3</sup>	434 mg/m <sup>3</sup> (BEI)*
Cumene	245 mg/m <sup>3</sup> (Skin)	246 mg/m <sup>3</sup>
Trimethylbenzene	not listed	123 mg/m <sup>3</sup>

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**APPEARANCE AND ODOR:** Clear, light amber to yellow liquid with solvent and mild mercaptan odor. **SOLUBILITY:** Emulsifies

**SPECIFIC GRAVITY (Water= 1):** 1.09 g/ml **BULK DENSITY:** 9.09-9.10 lbs/gal. **pH:** 3.59 (5% solution)

**VAPOR PRESSURE:** Not established **BOILING POINT:** Not established

**PERCENT VOLATILE (by volume):** Not established **EVAPORATION RATE:** Not established

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**

**STABILITY:** Stable **CONDITIONS TO AVOID:** Excessive heat and ignition sources.

**INCOMPATIBILITY:** Strong oxidizers, acids and bases.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition – oxides of sulfur, oxides of nitrogen, phosphorus-containing compounds and other unknown hazardous materials may be formed in a fire situation. Incomplete combustion may lead to formation of carbon monoxide and/or other asphyxiants.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**11. TOXICOLOGICAL INFORMATION**

**Acute Oral LD<sub>50</sub> (rat):** 425 mg/kg **Acute Dermal LD<sub>50</sub> (rabbit):** 2020 mg/kg

**Eye Irritation (rabbit):** Substantial but temporary eye injury **Skin Irritation (rabbit):** Slight irritant

**Inhalation LC<sub>50</sub> (rat):** >5.34 mg/L (4 hr). **Skin Sensitization (guinea pig):** Not established.

**Carcinogenic Potential:** None listed in OSHA, NTP, IARC or ACGIH

**12. ECOLOGICAL INFORMATION**

Dimethoate is toxic to wildlife and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Highly toxic to bees exposed to direct treatment or to residues on blooming crops or weeds. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning equipment or disposal of wastes.

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## 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state and federal regulations. Metal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.  
Plastic Jugs: Triple rinse (or equivalent), then offer for recycling at an ACRC site or by 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.

## 14. TRANSPORT INFORMATION

**DOT Shipping Description:** ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE, 6.1, (3), UN3017, III (DIMETHOATE, CYCLOHEXANONE) RQ (DIMETHOATE) ERG GUIDE 131

**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
		2 Health	0 Least	2 Health
		2 Flammability	1 Slight	2 Flammability
		1 Instability	2 Moderate	1 Reactivity
			3 High	H PPE
			4 Severe	

### SARA Hazard Notification/Reporting

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

**Reportable Quantity (RQ) under U.S. CERCLA:** Dimethoate (CAS: 60-51-5): 10 pounds; Cyclohexanone (CAS: 108-94-1) 5000 pounds

**SARA, Title III, Section 313:** Dimethoate (CAS: 60-51-5) 43.5%; 1,2,4 Trimethylbenzene (CAS: 95-63-6) 3.2% maximum; Xylene (CAS: 1330-20-7) 0.3% maximum; Cumene (CAS: 98-82-8) 0.2% maximum

**RCRA Waste Code:** P044

**CA Proposition 65:** Not listed.

**SARA, Title III, Section 302: Threshold Planning Quantity:** 500/10000 pounds

## 16. OTHER

**MSDS STATUS:** New

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental/ Regulatory Services

This MSDS is intended for worker and transport safety. It is not intended for users of the product who should refer to the product label for safety precautions applicable to them. Some safety equipment and procedure recommendations in this MSDS differ from the product label because they are intended for a different audience.

This material should only be handled by persons who are made aware of its hazardous properties and have been instructed in the required safety precautions.

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*\*BEI®: ACGIH has recommended a Biological Exposure Index for this substance = Acetylcholinesterase Inhibiting Pesticides*