

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **Dicofol 4E**
 Chemical name of active ingredient(s): Dicofol: 1,1-bis (chlorophenyl)-2,2,2-trichloroethanol
 Manufacturer/ Registrant: Makhteshim Agan of North America, Inc.
 4515 Falls of Neuse Road, Suite 300
 Raleigh, NC 27609
 Phone: 919-256-9300
 For fire, spill, and/or leak emergencies, contact Phone: 1-800-535-5053
 Infotrac:
 For medical emergencies and health and safety Phone: 1-877-250-9291
 inquiries, contact Prosar:

2. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	% BY WT.	CAS#	ACGIH (TLV)	OSHA (TWA)	OTHER	NTP/IARC/OSHA (Carcinogen)
Dicofol	42.0	115-32-2	NE	NE	NA	IARC 3*

*IARC Group 3: The agent (mixture, or exposure circumstance) is unclassifiable as to carcinogenicity to humans.

NE=Not established; NA=Not applicable

3. HAZARDS IDENTIFICATION

PHYSICAL PROPERTIES

Appearance: Amber liquid

Odor: Characteristic odor

EMERGENCY OVERVIEW: CAUTION. Harmful if swallowed or absorbed through skin. causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

POTENTIAL HEALTH EFFECTS:

Inhalation: Vapor or mist can irritate the nose and throat and cause drowsiness, slurred speech, headache, nausea, dizziness, stupor and unconsciousness.
 Eye Irritation: Severely irritating to the eyes; possibly permanent injury.
 Skin Irritation: Severely irritating to the skin and may cause allergic skin reaction.
 Ingestion: Toxic if swallowed.
 Chronic: Prolonged or repeated exposure to Dicofol can cause liver adrenal, kidney, or heart damage. Overexposure by any route to chlorinated hydrocarbons may cause nervousness and hyperactivity, headache, nausea, vomiting, unusual sensations, and fatigue. Convulsions and coma may follow.

PHYSICAL AND CHEMICAL HAZARDS: Do not use, pour, spill, or store near heat or open flame.

4. FIRST AID MEASURES

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> 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 IN EYES:	<ul style="list-style-type: none"> 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 ON SKIN OR	<ul style="list-style-type: none"> Take off contaminated clothing.

MATERIAL SAFETY DATA SHEET

Dicofol 4E

Page 2 of 4

CLOTHING:	<ul style="list-style-type: none">• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
IF INHALED:	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.• Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact PROSAR at 1-877-250-9291 for emergency medical treatment information. NOTE TO PHYSICIAN: Because this product contains a chlorinated hydrocarbon insecticide, vomiting or careful gastric lavage is recommended. Epinephrine or other adrenergic amines may cause myocardial irritability.	

5. FIRE FIGHTING MEASURES

FLASH POINT & METHOD: 105°C (222° F) (Pensky Martin closed cup)

FLAMMABLE LIMITS: Not determined

AUTOIGNITION TEMPERATURE: Not determined

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, and water spray.

FIRE AND EXPLOSION HAZARDS: Pesticide particulates can become airborne. Combustion produces toxic fumes: hydrogen chloride and chlorine gas.

FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear. Run-off should be contained. Remain upwind. Avoid smoke.

6. ACCIDENTAL RELEASE MEASURES

Wear protective clothing. Eliminate ignition sources. Ventilate area. Avoid breathing vapors. Use MSHA/NIOSH self-contained breathing apparatus for large spills in confined areas. Cover spill with absorbent material such as sweeping compound or lime. Sweep up and place in an appropriate chemical waste container for disposal. Remove contaminated clothing promptly and wash exposed skin areas with soap and water. Thoroughly launder clothing before reuse. Keep spill out of all sewers and open bodies of water.

7. HANDLING AND STORAGE

Do not contaminate water, food, or feed by storage or disposal or cleaning of equipment. Open dumping is prohibited.

PRECAUTIONS TO BE TAKEN IN HANDLING: Do not contaminate water supplies by handling or storage of product, cleaning of equipment or disposal of wastes. Keep work and storage areas clean.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store in a cool, dry place away from children, domestic animals, food and feed products. Do not contaminate other stored products or the storage area by handling or storage of this product. Immediately clean up any spills which occur during handling and storage. Protect from freezing. Heat may cause drums to rupture. Do not use, pour, spill, or store near heat or open flame.

STORAGE TEMPERATURE (MIN/MAX):

Minimum: Store above 0°C (32°F).

Maximum: Store below 43.3°C (110° F)

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

SKIN PROTECTION: Long sleeved shirt, long pants, chemical-resistant footwear plus socks, chemical-resistant headgear if overhead exposure.

HAND PROTECTION: Chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber, or Viton.

EYE PROTECTION: Protective eyewear.

RESPIRATORY PROTECTION: A NIOSH-approved respirator with 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 an organic-vapor cartridge or canister with any N, R or P or HE prefilter.

VENTILATION: No special ventilation requirements are known necessary. Product should remain in unopened original container until used. Product is usually used outdoors. Do not intentionally breathe vapors

ADDITIONAL PROTECTIVE MEASURES: 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/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Wash thoroughly and change into 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.

EXPOSURE GUIDELINES: Refer to Section 2.

ENGINEERING CONTROLS: Refer to product label.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Characteristic odor

COLOR: Amber

PHYSICAL STATE: Liquid

FLASH POINT: 105°C (222° F) (Pensky Martin closed cup)

SPECIFIC GRAVITY: 1.103 @ 22°C

pH: 3.85 @ 25°C

VISCOSITY: 79.5 mm²/s (cSt)

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal use and storage conditions.

INCOMPATIBLE MATERIALS: None known

CONDITIONS TO AVOID: Excessive heat

HAZARDOUS DECOMPOSITION: Not known.

HAZARDOUS POLYMERIZATION: Material is not known to polymerize.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES (FINISHED PRODUCT)

Acute Oral LD50 (Rat):	> 5,000 mg/kg
Acute Dermal LD50 (Rabbit):	> 5,000 mg/kg
Acute Inhalation LC50 (Rat):	> 2.10 mg/L
Eye Irritation (Rabbit):	Mildly irritating
Skin Irritation (Rabbit):	Moderately irritating
Dermal Sensitization (Guinea pig):	Not a skin sensitizer

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and wildlife. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, to areas where surface water is present or to intertidal areas below mean high water mark. Do not contaminate water when

disposing of equipment or washwaters. This chemical can contaminate surface water through drift from spray application.

13. DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, 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: Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT CLASSIFICATION:

UN 3082, Environmentally Hazardous Substances, Liquid, N.O.S. (Dicofol 42%), 9, PGIII, RQ

INTERNATIONAL TRANSPORTATION

IMO (vessel): UN 3082, Environmentally Hazardous Substances, Liquid, N.O.S. (Dicofol 42%), 9, PGIII, RQ, Marine Pollutant

IATA (air): UN 3082, Environmentally Hazardous Substances, Liquid, N.O.S. (Dicofol 42%), 9, PGIII, RQ

15. REGULATORY INFORMATION

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.
 Section 311/312: Acute health hazard (immediate)
 Section 313: Dicofol (42%) CAS #: 115-32-2

CA PROPOSITION 65: Not applicable

CERCLA RQ: Dicofol RQ=10 lbs

RCRA CLASSIFICATION: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA STATUS: The ingredients of this product are listed on the TSCA inventory or are exempt.

16. OTHER INFORMATION

NFPA HAZARD RATINGS	NFPA	HMIS	
HEALTH:	2	2	0 MINIMAL
FLAMMABILITY:	1	1	1 SLIGHT
REACTIVITY:	0	0	2 MODERATE
			3 HIGH
			4 SEVERE

MSDS Date: 8-26-08; Supersedes versions dated 5-15-08, 1-9-01, 6-12-02 and 1-28-04; Changes made to all sections.

The information contained herein is given in good faith and is believed to be correct, but no warrant, express or implied, is made. Consult Makhteshim Agan of North America, Inc. for further information.