

MATERIAL SAFETY DATA SHEET

DIAZINON 50W

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1. IDENTIFICATION

Product name: **DIAZINON 50W**
Chemical name of active ingredient(s): Diazinon: 0,0-diethyl 0-(2-isopropyl-6-methyl-4-pyrimidinyl) phosphorothioate
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 inquiries, contact Prosar: Phone: 1-877-250-9291

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Diazinon	333-41-5	50	0.1 mg/m3 (Skin)	0.1 mg/m3 (Skin)	Not Established	No

3. HAZARDS IDENTIFICATION

PHYSICAL PROPERTIES

Appearance: Off-white Powder
Odor: Sulfur-Like

EMERGENCY OVERVIEW: CAUTION. Harmful if swallowed, inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid breathing dust or spray mist. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contamination of food and feed. Do not use on humans or pets. Keep out reach of domestic animals. Be sure to read and follow WORK SAFETY RULES and worker protection precautions on label.

SYMPTOMS OF ACUTE EXPOSURE

Symptoms of cholinesterase inhibition can include headache, dizziness, blurred vision, weakness, nausea, cramps, diarrhea, discomfort in the chest, nervousness, sweating, miosis (pinpoint pupils), tearing, salivation, pulmonary edema, uncontrollable muscle twitches, convulsions, cyanosis, coma, and loss of reflexes and sphincter control. Exposure may result in eye and skin irritation.

HAZARDOUS DECOMPOSITION PRODUCTS

None Known.

UNUSUAL FIRE, EXPLOSION AND REACTIVITY HAZARDS

Thermal decomposition products include, but are not limited to, various aliphatic organophosphates, substituted pyrimidines, and hydrogen cyanide.

MEDICAL CONDITIONS LIKELY TO BE AGGRAVATED BY EXPOSURE: Exposure to cholinesterase inhibitors should be restricted in persons with hemolytic anemias or pre-existing cholinesterase depression. Individuals with pre-existing respiratory disorders should use extra care in handling this product.

4. FIRST AID MEASURES

FIRST AID	
Contains an organophosphate that inhibits cholinesterase	
IF SWALLOWED:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Have person sip a glass of water if able to swallow.• Do not give anything by mouth to an unconscious or convulsing person.
IF INHALED:	<ul style="list-style-type: none">• Move person to fresh air.

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	<ul style="list-style-type: none">• 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 further treatment advice.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none">• 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:	<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.
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: This product contains diazinon an organophosphate insecticide that inhibits cholinesterase. If symptoms of cholinesterase inhibition are present, atropine sulfate by injection is antidotal. 2-PAM is also antidotal and may be administered, but only in conjunction with atropine.	

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION:

Flash Point (Test Method): Not Applicable

Flammable Limits (% in Air): Lower: %; Upper: % Not Applicable

Autoignition Temperature: >400° C

Flammability: Not Flammable (DOT 49CFR 173.124)

UNUSUAL FIRE, EXPLOSION, AND REACTIVITY HAZARDS: Thermal decomposition products include, but are not limited to, various aliphatic organophosphates, substituted pyrimidines, and hydrogen cyanide.

IN CASE OF FIRE: Use dry chemical, foam, or CO2 extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes, or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated.

6. ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR LEAK: For small spills, sweep up keeping dust to a minimum, and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up, and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies. Wear appropriate PPE (Section 8).

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Store the material in a dry, cool, well-ventilated, secure area out of the reach of children and domestic animals. Do not store food, beverages, or tobacco products in the storage area.

PRECAUTIONS TO BE TAKEN IN STORAGE: Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

STORAGE TEMPERATURE (MIN/MAX): Normal ambient temperatures.

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, shoes plus socks, and chemical resistant apron, if mixing, loading or exposed to concentrate.

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HAND PROTECTION: Chemical-resistant gloves, if mixing or loading.

RESPIRATOR REQUIREMENTS: When needed, use a 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 a NIOSH-approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter.

ADDITIONAL PROTECTIVE MEASURES: 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/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove clothing immediately after handling this product. Wash 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

APPEARANCE: Off-white powder

ODOR: Sulfur-like

MELTING POINT: Not available

BOILING POINT: Not applicable

SPECIFIC GRAVITY/DENSITY: 24.00 lbs./cu.ft.

PH: 8-10 (1% suspension in water)

SOLUBILITY IN H₂O:

Diazinon: 60.000 mg/L @20°C

VAPOR PRESSURE: Diazinon: 1.20E-02 Pa @25°C

10. STABILITY AND REACTIVITY

REACTIVITY

Stability: Stable.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: None Known

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES

Acute Oral LD50 (Rat): 1,960 mg/kg body weight

Acute Dermal LD50 (Rabbit): >2,020 mg/kg body weight

Acute Inhalation LC50 (Rat) : >3mg/l air – 4 hours

Eye Irritation: Mildly irritating (rabbit)

Skin Irritation: Mildly irritating (rabbit)

Skin Sensitization: Not a Sensitizer (Guinea Pig)

MUTAGENIC POTENTIAL: Diazinon: None observed

REPRODUCTIVE HAZARD POTENTIAL: Diazinon: None observed

CHRONIC/SUBCHRONIC TOXICITY STUDIES: Diazinon: Cholinesterase inhibition

CARCINOGENIC POTENTIAL: Diazinon: None observed

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This product is highly toxic to birds, fish, and other wildlife. Birds, especially waterfowl, feeding or drinking on treated areas may be killed. Do not exceed maximum permitted label rates.

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Rates above those recommended significantly increase potential hazards to birds, especially waterfowl. Keep out of lakes, streams, ponds, tidal marshes, and estuaries. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Shrimp and crab may be killed at application rates recommended on the product label. Do not apply where fish, shrimp, crab, and other aquatic life are important resources. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters. This pesticide is highly toxic to bees exposed to direct treatment or to residues on blooming crops or weeds. Do not apply this pesticide or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

SUMMARY OF EFFECTS:

Diazinon: Highly toxic to birds and aquatic organisms. Avoid exposure to waterfowl.

ECO-ACUTE TOXICITY: Diazinon:

Rainbow Trout 96-hours LC50; 1.8 mg A.I./L

Bluegill Sunfish 96-hour LC50; 0.21 mg A.I./L

Daphnia magna 48-hour LC50; 0.0011 mg A.I./L

Bobwhite Oral LD50; 5.2 mg/kg

Mallard Oral LD50; 1.44 mg/kg

Bobwhite 8-day Dietary LC50; 235 ppm

Mallard 8-day Dietary LC50; 33 ppm A.I.

ECO-CHRONIC TOXICITY: Diazinon:

Fish (Fathead minnow) Early Life Stage MATC >0.092 and <0.17 mg/L

Invertebrate (Daphnia Magna) Life Cycle MATC >0.00017 and <0.00032 mg/L

Mallard Reproduction NOEC 10 ppm (ChE inhib <5 ppm)

Bobwhite Reproduction NOEC 40 ppm (ChE inhib. <10 ppm)

ENVIRONMENTAL FATE: Diazinon: No data available for the formulation. The information presented here is for the active ingredient, diazinon. A thorough review of environmental information is not possible in this document.

ENVIRONMENTAL PERSISTENCE/MOBILITY: Degrades rapidly in water, in the dark at pH 5 (t_{1/2}=12 d), more slowly at pH 7 and 9 (t_{1/2}=138 d and 77 d resp.). Degrades more rapidly in the light, in soil (t_{1/2}=2.5 d) than in water (t_{1/2}~25 d @ pH 7). Degrades under aerobic and anaerobic conditions (t_{1/2}~31 to 34 days). Mobility varies from very high to slight depending on the soil type (Koc=25 to 2300). Some bioaccumulation in fish (BCF=500X, whole fish).

13. DISPOSAL CONSIDERATION

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

PRODUCT DISPOSAL: Pesticide wastes are toxic. Improper disposal is a violation of Federal law. To avoid harming aquatic organisms in rivers and other surface waters, do not pour spray mixture or rinse water into sanitary drains (for example, toilets, floor drains, and sinks) or into storm water sewers (for example, street drains). If pesticide, spray mixture or rinsate cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative of 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:

Non-bulk: UN 3077, Environmentally hazardous substance, solid, N.O.S. (diazinon), 9, PG III, RQ

Bulk: UN 3077, Environmentally hazardous substance, solid, N.O.S. (diazinon), 9, PG III, RQ, Marine Pollutant

INTERNATIONAL TRANSPORTATION

IMO (vessel): UN 3077, Environmentally hazardous substance, solid, N.O.S. (diazinon), 9, PG III, RQ, Marine Pollutant

IATA (air): UN 3077, Environmentally hazardous substance, solid, N.O.S. (diazinon), 9, PG III, RQ

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15. REGULATORY INFORMATION

SARA TITLES III CLASSIFICATION:

Section 302: Not applicable.
Section 311/312: Acute Health Hazard
Chronic Health Hazard
Section 313: Diazinon (50%) (CAS No. 333-41-5)

PROPOSITION 65: Not Applicable

CERCLA REPORTABLE QUANTITY (RQ): 2 lbs. (Based on Diazinon content [RQ=1 lb.] in formulation)

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

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

MSDS Date: 10-8-08. Supersedes version dated 12-19-07, 1-28-04 and 7-18-03. Changes made to Sections 13 and 14.

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.