

DIAZINON AG500

1. IDENTIFICATION

Product name: Diazinon AG500

Chemical name of active ingredient(s): Diazinon: 0,0-diethyl 0-(2-isopropyl-6-methyl-4-pyrimidinyl) phosphorothioate (CAS #333-41-5)

Chemical Class: Organophosphate Insecticide

Manufacturer/Registrant:

Makhteshim-Agan of North America

551 Fifth Avenue, Suite 1100

New York, NY 10176

Phone: 212-661-9800

For fire, spill, and/or leak emergencies, contact Infotrac: Phone: 1-800-535-5053

For medical emergencies and health and safety inquiries, contact Prosar: Phone: 1-877-250-9291

2. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	OSHA/ PEL	ACGIH/ TLV	OTHER	NTP/ IARC/ OSHA Carcinogen
Surfactant	Not Established	Not Established	Not Established	No
Petroleum Solvent	Not Established	Not Established	Not Established	No
P-Xylene	Not Established	100 ppm (STEL= 150 ppm)	Not Established	IARC, 3
O-Xylene	100 ppm	100 ppm (STEL= 150 ppm)	Not Established	IARC, 3
M-Xylene	100 ppm	100 ppm (STEL= 150 ppm)	Not Established	No
Ethyl Benzene	100 ppm	100 ppm (STEL= 125 ppm)	Not Established	No
1,2,4-Trimethylbenzene	Not Established	Not Established	Not Established	No
Diazinon (48%)	0.1 mg/m3 (Skin)	0.1 mg/m3 (Skin)	Not Established	No

3. HAZARDS IDENTIFICATION

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. If swallowed and aspirated into the lungs, chemical pneumonia can occur. Exposure may result in eye and skin irritation.

HAZARDOUS DECOMPOSITION PRODUCTS: An impurity of toxicological concern, thionotetraethylpyrophosphate (O, S-TEPP) can be formed when diazinon-containing products are exposed to trace amounts of water.

PHYSICAL PROPERTIES:

Appearance: Amber liquid

Odor: Slight sulfur-like

UNUSUAL FIRE, EXPLOSION AND REACTIVITY HAZARDS: Forms flammable mixtures with air at temperatures above 41°C. This product is a NFPA Class II combustible liquid.

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4. FIRST AID MEASURES

FIRST AID	
This product contains diazinon, an organophosphate insecticide that inhibits cholinesterase.	
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 or convulsing 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.

CLOTHING:

- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center 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 mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

In the event of a major fire, spill, or other emergency call Prosar at 1-877-250-9291 day or night.

NOTE TO PHYSICIAN: This product contains diazinon, an organophosphate that inhibits cholinesterase. Induction of emesis is not recommended due to the large amount of petroleum solvent in this product, which could cause chemical pneumonitis if aspirated. If ingested, lavage stomach, taking care to avoid aspiration of stomach contents into the lungs. If inhaled, observe for delayed onset of pulmonary edema. Treat central nervous system effects symptomatically. This product is an (cholinesterase-inhibiting) insecticide. Atropine is antidotal and should be given i.v. in multiple doses as necessary until the patient is atropinized. In severe cases, 2-PAM may be given provided therapy begins within 24 hours of exposure. Monitor serum and RBC cholinesterase. Morphine, theophylline, aminophylline, phenothiazines, reserpine, furosemide, or ethacrynic acid are contraindicated in organophosphate poisonings. Administer i.v. fluids cautiously if needed to correct dehydration. Contact with eyes may require specialized ophthalmologic attention. An aqueous suspension of activated charcoal can be administered to absorb remaining toxicant.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

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.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION

FLASHPOINT (Test Method): 105°F

FLAMMABLE LIMITS (% in air): Lower: %; Upper: % Not Available

AUTOIGNITION TEMPERATURE: >842°F

FLAMMABILITY: Not Applicable

UNUSUAL FIRE, EXPLOSION, AND REACTIVITY HAZARDS:

Forms flammable mixtures with air at temperatures above 41°C. This product is a NFPA Class II combustible liquid.

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 SPILLS OR LEAKS: Wear chemical safety glasses with side shields or chemical goggles, rubber gloves, rubber boots, long-sleeved shirt, long pants, head covering, and a NIOSH-approved chemical cartridge respirator with organic vapor cartridges and pesticide pre-cartridges or a self-contained breathing apparatus (SCBA). For small spills, cover the spill with an absorbent material such as pet litter. Sweep up 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.

7. HANDLING AND STORAGE

Store the material in a 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. 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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

Ingestion: 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.

Eye Contact: To avoid eye contact, wear chemical safety glasses with side shields or chemical goggles.

Skin Contact: To avoid skin contact, wear rubber gloves, rubber boots, long-sleeved shirt, long pants, and a head covering. Discard heavily contaminated articles which cannot be washed.

Inhalation: To avoid breathing vapors or spray mist, wear a NIOSH-approved chemical cartridge respirator with organic vapor cartridges and pesticide pre-cartridges or a supplied-air respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Amber liquid

ODOR: Slight sulfur-like

MELTING POINT: Not applicable

BOILING POINT: 190°C

SPECIFIC GRAVITY/DENSITY: 1.00 g/cc @ 20°C

pH: 6-8 (1% solution in H₂O @ 25°C)

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: Flame, heat, ignition sources, strong oxidizers, acids, and bases.

HAZARDOUS DECOMPOSITION PRODUCTS:

An impurity of toxicological concern, thionotetraethylpyrophosphate (O,S-TEPP) can be formed when diazinon-containing products are exposed to trace amounts of water.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES

INGESTION: Slightly Toxic: Oral LD 50 (Rat): 2,040 mg/kg body weight

DERMAL: Slightly Toxic: Dermal LD 50 (Rabbit): >2,020 mg/kg body weight

INHALATION: Slightly Toxic: Inhalation LC 50 (Rat): 2.6 mg/l air — 4 hours

EYE CONTACT: Slightly irritating (Rabbit)

SKIN CONTACT: Moderately 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

OTHER TOXICITY INFORMATION: Not available

TOXICITY OF OTHER COMPONENTS:

Petroleum Solvent: Low viscosity material - if swallowed may enter the lungs and cause lung damage. Swallowing may result in severe gastrointestinal irritation. On prolonged repeated contact, this material may defat the skin resulting in possible irritation and dermatitis. Respiratory irritation, dizziness, nausea, loss of consciousness.

Surfactant: Causes severe eye irritation, which could lead to permanent eye damage. Prolonged or repeated skin contact may cause discomfort and local redness. Mist can irritate the respiratory tract, experienced as nasal discomfort and discharge with chest pain and coughing.

TARGET ORGANS

Active Ingredients:

Diazinon: Central nervous system

Inert Ingredients:

Petroleum Solvent: Respiratory tract, Central nervous system, Skin

Surfactant: Eyes, Skin, and Respiratory tract

12. ECOLOGICAL INFORMATION**SUMMARY OF EFFECTS**

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

ECO-ACUTE TOXICITY

Diazinon:

Rainbow Trout 96-hour LC50; 1.8 mg A.I./L.
Bluegill Sunfish 96-hour LC50; 0.21 mg A.I./L.
Daphnia magna 48-hour LC 50; 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; 100 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 ($t_{1/2}$ ~ 25d @ pH 7.) Degrades under aerobic and anaerobic conditions ($t_{1/2}$ ~ 31 to 34 days). Mobility varies from high to slight depending on the soil type (Koc = 25 to 2300). Some bioaccumulation if fish (BCF = 500X, whole fish).

13. DISPOSAL CONSIDERATIONS

DISPOSAL: Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION:

DOT CLASSIFICATION: Non-bulk: RQ, Combustible liquid, N.O.S., (diazinon, xylene), NA1993, PG III

B/L FREIGHT CLASSIFICATION: 45617 [Fungicide, Herbicide, Insecticide or Rodenticide] Class 92.5

INTERNATIONAL TRANSPORTATION: IMO (Vessel): RQ, Flammable liquid, N.O.S., (diazinon 48%, xylene), 3, UN 1993, PG III, Marine Pollutant

15. REGULATORY INFORMATION**SARA TITLE III CLASSIFICATION:****SECTION 311/312:**

Acute Health Hazard
Chronic Health Hazard
Fire Hazard

SECTION 313 (chemicals):

Diazinon (CAS No. 333-41-5)
1,2,4-Trimethylbenzene (CAS No. 95-63-6)
Ethyl Benzene (CAS No. 100-41-4)
M-Xylene (CAS No. 108-38-3)
O-Xylene (CAS No. 95-47-6)
P-Xylene (CAS No. 106-42-3)

PROPOSITION 65: Not Applicable

CERCLA Reportable Quantity (RQ): 1.8 pints (Based on diazinon content [RQ= 1 lb.] in formulation)

RCRA Classification: Ignitable

TSCA Status: Exempt from TSCA

16. OTHER INFORMATION

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

Revised date: 1-28-04. Supersedes version dated 7-18-03. Changes to Sections 13, 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 for further information. VID 9.27.04