



# Safety Data Sheet

Issue Date: 28-Aug-2013

Revision Date: 18-Aug-2015

Version 2

## 1. IDENTIFICATION

### Product Identifier

**Product Name** **Diazinon AG 500**

### Other means of identification

**SDS #** ADAMA-014

**Registration Number(s)** EPA Reg. No. 66222-9  
**UN/ID No** NA1993

### Recommended use of the chemical and restrictions on use

**Recommended Use** EPA registered pesticide.

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

Makhteshim Agan of North America, Inc. (d/b/a ADAMA)  
3120 Highwoods Blvd., Suite 100  
Raleigh, NC 27604  
1-919-256-9300

### Emergency Telephone Number

**Emergency Telephone (24 hr)** For fire, spill and/or leak contact INFOTRAC:  
1-800-535-5053 (North America) 1-352-323-3500 (International)  
For medical emergencies and health/safety inquiries, contact PROSAR:  
1-877-250-9291

## 2. HAZARDS IDENTIFICATION

This chemical is a product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-EPA registered chemicals. Please see Section 15 for additional EPA information.

**Appearance** Amber liquid

**Physical State** Liquid

**Odor** Slight sulfur

### Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Vapors)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Carcinogenicity	Category 1B
Flammable Liquids	Category 3

### Hazards Not Otherwise Classified (HNOC)

May be harmful in contact with skin

### Signal Word

**Danger**

**Hazard Statements**

Harmful if swallowed  
 Toxic if inhaled  
 May cause cancer  
 Flammable liquid and vapor

**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area  
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
 Keep container tightly closed  
 Ground/bond container and receiving equipment  
 Use explosion-proof equipment  
 Use only non-sparking tools  
 Take precautionary measures against static discharge  
 Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Call a POISON CENTER or doctor/physician  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
 Rinse mouth  
 IN CASE OF FIRE: Use CO<sub>2</sub>, dry chemical, or foam for extinction

**Precautionary Statements - Storage**

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed  
 Keep cool

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Hazards**

Very toxic to aquatic life with long lasting effects

<b>3. COMPOSITION/INFORMATION ON INGREDIENTS</b>
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Chemical Name	CAS No	Weight-%
Diazinon	333-41-5	55.2
Hydrocarbon blend	proprietary	44.8

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

## 4. FIRST-AID MEASURES

### First Aid Measures

<b>General Advice</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>Eye Contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek medical advice.
<b>Skin Contact</b>	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a poison control center or doctor for treatment advice.
<b>Inhalation</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Give oxygen if breathing is difficult. If breathing has stopped, call 911, give artificial respiration. Call a POISON CENTER or doctor/physician.
<b>Ingestion</b>	Do not induce vomiting, unless directed by medical personnel. Get immediate medical attention. Do NOT give liquids. Never give anything by mouth to an unconscious person.

### Most important symptoms and effects

<b>Symptoms</b>	Causes moderate eye irritation. Prolonged contact may cause skin irritation or allergic reaction. May exhibit symptoms of cholinesterase inhibition which may 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.
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### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	Treat symptomatically. This product contains an organophosphate that inhibits cholinesterase. If exposed, plasma and red blood cell cholinesterase test may indicate significance of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. In case of severe acute poisoning, use antidote immediately after establishing an open airway and respiration. Contains petroleum distillate. Vomiting may induce aspiration pneumonia.
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## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Foam.

**Unsuitable Extinguishing Media** Not determined.

### Specific Hazards Arising from the Chemical

Flammable liquid and vapor.

**Hazardous Combustion Products** An impurity of toxicological concern, thiono-tetraethyl-pyrophosphate (O, S-TEPP) can be form when diazinon-containing products are exposed to trace amounts of water.

**Sensitivity to Static Discharge** Take precautionary measures against static discharge.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate area of unprotected personnel. Remain upwind of fire to avoid hazardous vapors and decomposition products. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

<b>Personal Precautions</b>	Wear protective clothing as described in Section 8 of this safety data sheet. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.
<b>Environmental Precautions</b>	See Section 12 for additional Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

**Methods and material for containment and cleaning up**

<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Clean-Up</b>	Cover and contain spill with an absorbent material such as pet litter, sand or vermiculite. Sweep up and shovel into suitable containers for disposal. Wash the area with water containing a strong detergent, cover with absorbent, sweep up and place in a chemical container. Seal the container and dispose of in an approve manner. Flush spill area with water, collect rinse water in containers for proper disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

<b>Advice on Safe Handling</b>	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors or mists. Use only outdoors or in a well-ventilated area. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Ground/bond container and receiving equipment. Use non-sparking hand tools and explosion-proof electrical equipment. Take precautionary measures against static discharges.
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**Conditions for safe storage, including any incompatibilities**

<b>Storage Conditions</b>	Keep container tightly closed and store in a cool, dry and well-ventilated place. Keep locked up and out of reach of children. Do not contaminate water, food or feed by storage, disposal or by cleaning equipment. Do not store above 41°C (106°F).
<b>Incompatible Materials</b>	Strong acids, strong bases, strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Diazinon 333-41-5	TWA: 0.01 mg/m <sup>3</sup> inhalable fraction and vapor S*	(vacated) TWA: 0.1 mg/m <sup>3</sup> (vacated) S*	TWA: 0.1 mg/m <sup>3</sup>
Hydrocarbon blend	TWA: 25 ppm	(vacated) TWA: 25 ppm (vacated) TWA: 125 mg/m <sup>3</sup>	-

**Appropriate engineering controls****Engineering Controls**

Please refer to the product label. Use only with adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Individual protection measures, such as personal protective equipment****Eye/Face Protection**

Use splash goggles or face shield when contact may occur.

**Skin and Body Protection**

Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Long sleeve shirt, trousers, and safety shoes. Chemical-resistant gloves, such as barrier laminate or butyl rubber  $\geq 14$  mils.

**Respiratory Protection**

Ensure adequate ventilation, especially in confined areas. Wear 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 when engineering controls are not feasible.

**General Hygiene Considerations**

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 such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Wash at the end of each work shift and before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Discard contaminated leather articles. Launder or discard contaminated clothing.

<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>
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**Information on basic physical and chemical properties**

<b>Physical State</b> <b>Appearance</b> <b>Color</b> <b><u>Property</u></b> <b>pH</b> <b>Melting Point/Freezing Point</b> <b>Boiling Point/Boiling Range</b> <b>Flash Point</b> <b>Evaporation Rate</b> <b>Flammability (Solid, Gas)</b> <b>Upper Flammability Limits</b> <b>Lower Flammability Limit</b> <b>Vapor Pressure</b> <b>Vapor Density</b> <b>Specific Gravity</b> <b>Water Solubility</b>  <b>Solubility in other solvents</b> <b>Partition Coefficient</b> <b>Auto-ignition Temperature</b> <b>Decomposition Temperature</b> <b>Kinematic Viscosity</b> <b>Dynamic Viscosity</b> <b>Explosive Properties</b> <b>Oxidizing Properties</b>	Liquid Amber liquid Amber <b><u>Values</u></b> 6-8 Not determined 190 °C / 374 °F 40 °C / 105 °F Not determined Liquid-not applicable Not determined Not determined 1.20e-02 Pa Not determined 1.00 g/cc 60 mg/L @20°C Not determined Not determined >450 °C / >842 °F Not determined Not determined Not determined Not determined Not determined	<b>Odor</b> <b>Odor Threshold</b> <b><u>Remarks • Method</u></b> (1% solution) @ 25 °C (77 °F)  @ 25°C (77°F)  @ 20°C (68°F) Diazinon	Slight sulfur Not determined
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## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

**Hazardous Polymerization**      Hazardous polymerization does not occur.

### Conditions to Avoid

Avoid heat, sparks, open flames and other ignition sources.

### Incompatible Materials

Strong acids, strong bases, strong oxidizing agents.

### Hazardous Decomposition Products

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

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

**Eye Contact**      Avoid contact with eyes.

**Skin Contact**      May be harmful in contact with skin.

**Inhalation**      Toxic if inhaled.

**Ingestion**      Harmful if swallowed.

### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Diazinon 333-41-5	= 66 mg/kg ( Rat )	> 2150 mg/kg ( Rat ) = 3600 mg/kg ( Rabbit )	> 2.33 mg/L ( Rat ) 4 h
Hydrocarbon blend	= 8970 mg/kg ( Rat )	-	-

### Information on physical, chemical and toxicological effects

**Symptoms**      Please see section 4 of this SDS for symptoms.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Carcinogenicity**      May cause cancer.

Chemical Name	ACGIH	IARC	NTP	OSHA
Diazinon 333-41-5		Group 2A		X

*IARC (International Agency for Research on Cancer)*

*Group 2A - Probably Carcinogenic to Humans*

*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*

*X - Present*

**Product Information (Numerical measures of toxicity)****Acute Oral LD50 (Rat):** 787 mg/kg**Acute Dermal LD50 (Rabbit):** >2,000 mg/kg**Acute Inhalation LC50 (Rat):** 1.68 mg/L (4-hr)**Eye Irritation:** Mildly irritating.**Dermal Irritation:** Moderately irritating.**Dermal Sensitization:** A Skin Contact Sensitizer (Guinea Pig).**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Very toxic to aquatic life with long lasting effects. 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. 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 this label. Do not apply where fish, shrimp, crab and other aquatic life are important resources. 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.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Diazinon 333-41-5	17.3: 120 h <i>Desmodesmus subspicatus</i> mg/L EC50 6.4: 168 h <i>Desmodesmus subspicatus</i> mg/L EC50	0.4 - 0.8: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 4.7: 96 h <i>Pimephales promelas</i> mg/L LC50 semi-static 3.4 - 5.2: 96 h <i>Pimephales promelas</i> mg/L LC50 static 0.31 - 0.62: 96 h <i>Lepomis macrochirus</i> mg/L LC50 flow-through 0.022: 96 h <i>Lepomis macrochirus</i> mg/L LC50 0.022: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 0.09: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static 2.3: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 4: 96 h <i>Poecilia reticulata</i> mg/L LC50 0.8: 96 h <i>Poecilia reticulata</i> mg/L LC50 semi-static 3: 96 h <i>Poecilia reticulata</i> mg/L LC50 static 3.43: 96 h <i>Cyprinus carpio</i> mg/L LC50 semi-static 0.000072: 96 h <i>Cyprinus carpio</i> mg/L LC50 static	EC50 = 1.7 mg/L 5 min	0.00096: 48 h <i>Daphnia magna</i> mg/L EC50 0.0004 - 0.00059: 48 h <i>Daphnia magna</i> mg/L EC50 Static 0.0006 - 0.0009: 48 h <i>Daphnia magna</i> mg/L EC50 semi-static
Hydrocarbon blend		7.72: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through		

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Chemical Name	Partition Coefficient
Diazinon 333-41-5	3.3

**Other Adverse Effects**

Not determined

**13. DISPOSAL CONSIDERATIONS****Waste Treatment Methods**

**Disposal of Wastes** 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 of the nearest EPA Regional Office for guidance.

**Contaminated Packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**California Hazardous Waste Status**

Chemical Name	California Hazardous Waste Status
Diazinon 333-41-5	Toxic

**14. TRANSPORT INFORMATION****DOT**

**UN/ID No** NA1993  
**Proper Shipping Name** Combustible liquid, n.o.s. (diazinon, xylene)  
**Hazard Class** Comb. Liq.  
**Packing Group** III  
**Reportable Quantity (RQ)** RQ if package contains > 0.48 lb.  
**Non Bulk** DOT Exception 49 CFR 173.150(f) applies: No placard required on truck, no combustible label on carton is required.

**IATA**

**UN/ID No** UN1993  
**Proper Shipping Name** Flammable liquid, n.o.s. (diazinon, xylene)  
**Hazard Class** 3  
**Packing Group** III  
**Marine Pollutant** Yes

**IMDG**

**UN/ID No** UN1993  
**Proper Shipping Name** Flammable liquid, n.o.s. (diazinon, xylene)  
**Hazard Class** 3  
**Packing Group** III  
**Marine Pollutant** Yes

**15. REGULATORY INFORMATION****International Inventories**

**TSCA** Listed

**Legend:**

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*

*DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*

*EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

*ENCS - Japan Existing and New Chemical Substances*

*IECSC - China Inventory of Existing Chemical Substances*

*KECL - Korean Existing and Evaluated Chemical Substances*



*PICCS - Philippines Inventory of Chemicals and Chemical Substances*

## US Federal Regulations

### CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Diazinon 333-41-5	1 lb		RQ 1 lb final RQ RQ 0.454 kg final RQ

### SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

### SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Diazinon - 333-41-5	333-41-5	55.2	1.0

### CWA (Clean Water Act)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Diazinon 333-41-5 ( 55.2 )	1 lb			X

## US State Regulations

### California Proposition 65

This product does not contain any Proposition 65 chemicals.

### U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Diazinon 333-41-5	X	X	X
Hydrocarbon blend	X	X	X

### EPA Pesticide Registration Number EPA Reg. No. 66222-9

#### EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

#### EPA Pesticide Label

Signal Word: Caution

Harmful if swallowed, inhaled, or absorbed through skin. Causes moderate eye injury. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contamination of food and feed. Food utensils such as tablespoons and measuring cups should not be used for food purposes after use in measuring pesticides. Keep out of reach of domestic animals. Do not use on humans, household pets, or livestock. Do not contaminate ornamental fish ponds.

**Difference between SDS and EPA pesticide label**

	EPA	OSHA
<b>Signal Word</b>	Caution	Danger
Acute toxicity - Oral	Harmful if swallowed	Harmful if swallowed
Acute toxicity - Dermal	Harmful if absorbed through skin	May be harmful in contact with skin
Acute toxicity - Inhalation (Dusts/Mists)	Harmful if inhaled	Toxic if inhaled
Serious eye damage/eye irritation	Causes moderate eye injury	N/A
Carcinogenicity	N/A	May cause cancer

**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	2	2	0	None
<b><u>HMIS</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical Hazards</b>	<b>Personal Protection</b>
	2	2	0	See Section 8

**Issue Date:** 28-Aug-2013  
**Revision Date:** 18-Aug-2015  
**Revision Note:** Updated format from 30-Apr-2014

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**