



Safety Data Sheet

Issue Date: 28-Aug-2013

Revision Date: 15-Jan-2020

Version 3

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 restricted use 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 restricted use pesticide 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 CO₂, 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

3. COMPOSITION/INFORMATION ON INGREDIENTS
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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

General Advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek medical advice.
Skin Contact	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.
Inhalation	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.
Ingestion	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

Symptoms	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

Notes to Physician	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 (CO₂). 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

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

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Clean-Up	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

Advice on Safe Handling	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

Storage Conditions	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).
Incompatible Materials	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 ³ inhalable fraction and vapor S*	(vacated) TWA: 0.1 mg/m ³ (vacated) S*	TWA: 0.1 mg/m ³
Hydrocarbon blend	TWA: 25 ppm	(vacated) TWA: 25 ppm (vacated) TWA: 125 mg/m ³	-

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 ≥ 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.

9. PHYSICAL AND CHEMICAL PROPERTIES
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Information on basic physical and chemical properties

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

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 form 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 restricted use pesticide 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

RESTRICTED USE PESTICIDE
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
Signal Word	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**NFPA****Health Hazards**

2

Flammability

2

Instability

0

Special Hazards

None

HMIS**Health Hazards**

2

Flammability

2

Physical Hazards

0

Personal Protection

See Section 8

Issue Date:

28-Aug-2013

Revision Date:

15-Jan-2020

Revision Note:

Updated format from 18-Aug-2015

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