



# Safety Data Sheet

Issue Date: 09-Oct-2013

Revision Date: 16-Oct-2015

Version 2

## 1. IDENTIFICATION

### Product Identifier

Product Name

**Phenomenon**

### Other means of identification

SDS #

ADAMA-056A

Registration Number(s)

EPA Reg. No. 66222-87

### 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 to brown liquid

**Physical State** Liquid

**Odor** Aromatic

### Classification

Germ cell mutagenicity

Category 1B

### Hazards Not Otherwise Classified (HNOC)

May be harmful if swallowed  
May be harmful in contact with skin

### Signal Word

**Danger**

### Hazard Statements

May cause genetic defects

**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

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Hazards**

Harmful to aquatic life with long lasting effects

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Metolachlor II	51218-45-2	81.87-86.93
Proprietary Solvent	Proprietary	<3

\*\*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. If exposed or concerned: Get medical advice/attention.
<b>Eye Contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison control center or doctor for treatment 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>	Give oxygen if breathing is difficult. If breathing has stopped, call 911, give artificial respiration. Call a poison control center or doctor for further treatment advice.
<b>Ingestion</b>	Immediately call a poison center or doctor/physician. Do not induce vomiting, unless directed by medical personnel. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects**

**Symptoms** May be harmful if swallowed. May be harmful in contact with skin. Direct contact may cause skin or eye irritation.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

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

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

Can burn under fire conditions. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Hazardous Combustion Products** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**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** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, 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** Absorb with inert material or sweep up, and then place in suitable container for chemical waste.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Wash face, hands, and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse. Use in accordance with product label instructions. Do not eat, drink, smoke, or apply cosmetics while handling this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

**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 out of the reach of children. Keep/store only in original container. Keep away from food, drink and animal feeding stuffs. Store above -30°F. Store locked up.
<b>Incompatible Materials</b>	None known based on information supplied.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines** The following information is given as general guidance

**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** Wear safety glasses with side shields (or goggles). Goggles are recommended.

**Skin and Body Protection** Wear appropriate clothing to prevent repeated or prolonged skin contact. Wear long-sleeved shirt, long pants, and shoes plus socks. Use chemical resistant gloves, such as P.V.C., butyl-rubber, nitrile-rubber, or neoprene.

**Respiratory Protection** NIOSH-approved respirator or mask in the absence of adequate ventilation.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Take off all contaminated clothing and wash it before reuse. 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.

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

<b>Physical State</b>	Liquid	<b>Odor</b>	Aromatic
<b>Appearance</b>	Amber to brown liquid	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Amber to brown		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH</b>	5.5-8.0	(1% in 50:50 isopropanol: water)	
<b>Melting Point/Freezing Point</b>	Not determined		
<b>Boiling Point/Boiling Range</b>	150 °C / 302 °F	(at 760 mm Hg)	
<b>Flash Point</b>	> 93 °C / > 200 °F	TCC	
<b>Evaporation Rate</b>	Not determined		
<b>Flammability (Solid, Gas)</b>	Liquid-not applicable		
<b>Upper Flammability Limits</b>	Not applicable		
<b>Lower Flammability Limit</b>	Not applicable		
<b>Vapor Pressure</b>	1.3 x 10 <sup>-5</sup> mmHg	@ 20 C	
<b>Vapor Density</b>	Not determined		
<b>Specific Gravity</b>	1.108 g/ml	@ 20°C (68°F)	
<b>Water Solubility</b>	Not applicable		
<b>Solubility in other solvents</b>	Not determined		

<b>Partition Coefficient</b>	Not determined
<b>Auto-ignition Temperature</b>	Not determined
<b>Decomposition Temperature</b>	Not determined
<b>Kinematic Viscosity</b>	Not determined
<b>Dynamic Viscosity</b>	Not determined
<b>Explosive Properties</b>	Not determined
<b>Oxidizing Properties</b>	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**      Not known to occur.

### Conditions to Avoid

Keep out of reach of children.

### Incompatible Materials

None known based on information supplied.

### Hazardous Decomposition Products

May emit toxic fumes under fire conditions.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Eye Contact</b>	Avoid contact with eyes.
<b>Skin Contact</b>	May be harmful in contact with skin.
<b>Inhalation</b>	Avoid breathing vapors or mists.
<b>Ingestion</b>	May be harmful if swallowed.

### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Metolachlor II 51218-45-2	= 2200 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 1750 mg/m <sup>3</sup> ( Rat ) 4 h
Proprietary Solvent	-	> 2000 mg/kg ( Rabbit )	> 5.2 mg/L ( Rat ) 4 h = 3400 ppm ( Rat ) 4 h

### 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**

<b>Germ cell mutagenicity</b>	May cause genetic defects.
<b>Carcinogenicity</b>	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Product Information (Numerical measures of toxicity)**

**Acute Oral LD50 (Rat):** 1,200- 2,780 mg/kg

**Acute Dermal LD50 (Rabbit):** >2,000mg/kg

**Acute Inhalation LC50 (Rat):** >4.3 mg/L (4-hr)

**Eye Irritation:** Mildly irritating.

**Dermal Irritation:** Slightly irritating.

**Dermal Sensitization:** Not a skin sensitizer.

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Harmful to aquatic life with long lasting effects. For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

**Component Information**

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Metolachlor II 51218-45-2	57.1: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50 static 0.0448 - 0.0568: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 static	8.6 - 12: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 3.3 - 4.6: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static 5.4 - 12: 96 h <i>Pimephales promelas</i> mg/L LC50 static 7.4 - 10.5: 96 h <i>Poecilia reticulata</i> mg/L LC50 static		25.1: 48 h <i>Daphnia magna</i> mg/L LC50 4.25: 48 h <i>Daphnia magna</i> mg/L EC50 13 - 18.4: 48 h <i>Daphnia magna</i> mg/L EC50 Static
Proprietary Solvent		9.22: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50		6.14: 48 h <i>Daphnia magna</i> mg/L EC50

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Chemical Name	Partition Coefficient
Metolachlor II 51218-45-2	2.9

**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.

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

Package size less than 119 Gallons: Not regulated

Package size over 119 Gallons:

UN 3082, Environmentally hazardous substance, liquid, n.o.s. (Metolaclor), 9, PG III, Marine Pollutant

**IATA****UN/ID No**

UN3082

**Proper Shipping Name**

Environmentally hazardous substance, liquid, n.o.s. (Metolaclor)

**Hazard Class**

9

**Packing Group**

III

**Description**

Marine Pollutant

**IMDG****UN/ID No**

UN3082

**Proper Shipping Name**

Environmentally hazardous substance, liquid, n.o.s. (Metolaclor)

**Hazard Class**

9

**Packing Group**

III

**Marine Pollutant**

Marine Pollutant

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

All ingredients are listed or exempt from listing on Chemical Substance Inventory

**Legend:**

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

**US Federal Regulations****SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**SARA 313**

Not determined

**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
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Metolachlor II 51218-45-2	X		
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**EPA Pesticide Registration Number** 66222-87**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 eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist

**Difference between SDS and EPA pesticide label**

	EPA	OSHA
<b>Signal Word</b>	Caution	Danger
Acute toxicity - Oral	Harmful if swallowed	May be harmful if swallowed
Acute toxicity - Dermal	Harmful if absorbed through the skin	May be harmful in contact with skin
Acute toxicity - Inhalation (Vapors)	Harmful if inhaled	N/A
Serious eye damage/eye irritation	Causes eye irritation	N/A
Germ cell mutagenicity	N/A	May cause genetic defects

**16. OTHER INFORMATION****NFPA****Health Hazards**

2

**Flammability**

1

**Instability**

0

**Special Hazards**

None

**HMIS****Health Hazards**

2

**Flammability**

1

**Physical Hazards**

1

**Personal Protection**

See section 8

**Issue Date:**

09-Oct-2013

**Revision Date:**

16-Oct-2015

**Revision Note:**

Updated format from 01-Oct-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 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**