

Safety Data Sheet



Issue Date: 20-Oct-2008

Revision Date: 04-Sept-2015

Version 2

1. IDENTIFICATION

Product Identifier

Product Name

ABBA 0.15EC

Other means of identification

SDS #

ADAMA-020

Registration Number(s)

EPA Reg. No. 66222-139

UN/ID No

UN2902

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 Straw-amber liquid

Physical State Liquid

Odor None

Classification

Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Vapors)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 1B
Reproductive toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1

Hazards Not Otherwise Classified (HNOC)

May be harmful in contact with skin

Signal Word

Danger

Hazard Statements

Toxic if swallowed

Toxic if inhaled

Causes skin irritation

Causes serious eye irritation

May cause cancer

May damage fertility or the unborn child

May cause respiratory irritation. May cause drowsiness or dizziness

Causes damage to organs through prolonged or repeated exposure

**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

Use only outdoors or in a well-ventilated area

Wear eye/face protection

Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash it before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Call a POISON CENTER or doctor/physician

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Rinse mouth

Precautionary Statements - Storage

Store locked up

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

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-%
Abamectin	71751-41-2	1.8-2.0
Proprietary Solvent 1	Proprietary	<25
Proprietary Solvent 2	Proprietary	<1.5

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	If exposed or concerned: Get medical advice/attention. When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact	IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash it before reuse.
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	IF SWALLOWED: call a poison control center or physician immediately. Rinse mouth. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

Most important symptoms and effects

Symptoms	Causes skin irritation. Causes serious eye irritation. May be harmful in contact with skin. May cause respiratory irritation. May cause drowsiness or dizziness. May cause gastrointestinal disturbance. Nausea. Vomiting.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam. Carbon dioxide (CO₂). Dry chemical.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Not determined.

Hazardous Combustion Products Combustion products include but are not limited to carbon monoxide and carbon dioxide.

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. Prevent human exposure to fire, fumes, smoke and products of combustion. Evacuate non-essential personnel.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protection recommended in Section 8. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.
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	Contain and collect with an inert absorbent and place into an appropriate container for disposal. Clean the floor with detergent and water. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs.

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 or smoke when using this product. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Do not contaminate water, food or feed by storage, disposal or by cleaning equipment.
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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/store only in original container. Store at ambient conditions. Store locked up.
Incompatible Materials	None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Proprietary Solvent 2	TWA: 2 mg/m ³ inhalable fraction and vapor	(vacated) TWA: 10 mg/m ³	TWA: 10 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.
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Individual protection measures, such as personal protective equipment

Eye/Face Protection	Protective eyewear (e.g. goggles or full-face shield).
Skin and Body Protection	Chemical resistant, impermeable gloves. Coveralls over long- or short-sleeved shirt and long pants, chemical-resistant footwear plus socks and head covering (for overhead exposure). Chemical-resistant apron when cleaning equipment, mixing or loading.
Respiratory Protection	Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection.
General Hygiene Considerations	Wash face, hands and any exposed skin thoroughly after handling. Take off all contaminated clothing and wash it before reuse.

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

Physical State	Liquid	Odor	None
Appearance	Straw-amber liquid	Odor Threshold	Not determined
Color	Straw-amber		
Property	Values	Remarks • Method	
pH	5.1	@ 25°C	
Melting Point/Freezing Point	Not available		
Boiling Point/Boiling Range	Not available		
Flash Point	> 110 °C / > 230 °F		
Evaporation Rate	Not determined		
Flammability (Solid, Gas)	Liquid-not applicable		
Upper Flammability Limits	Not determined		
Lower Flammability Limit	Not determined		
Vapor Pressure	7.5x10 ⁻⁸	@ 25 C	
Vapor Density	Not determined		
Specific Gravity	0.98		
Water Solubility	Miscible in water		
Solubility in other solvents	Not determined		
Partition Coefficient	Not determined		
Auto-ignition Temperature	Not determined		
Decomposition Temperature	Not determined		
Kinematic Viscosity	Not determined		
Dynamic Viscosity	Not determined		
Explosive Properties	Not determined		
Oxidizing Properties	Not determined		
Bulk Density	0.987 g/ml		

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.
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Conditions to Avoid

Keep out of reach of children.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition Products

Thermal decomposition may produce the following: Carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information****Eye Contact** Causes serious eye irritation.**Skin Contact** Causes skin irritation.**Inhalation** Toxic if inhaled.**Ingestion** Toxic if swallowed.**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Proprietary Solvent 1	= 3598 mg/kg (Rat)	= 8 g/kg (Rabbit)	= 3.1 mg/L (Rat) 4 h
Abamectin 71751-41-2	28.47 mg/kg	200-2000 mg/kg	0.055-0.21 mg/l
Proprietary Solvent 2	= 890 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
Abamectin 71751-41-2		Group 2A		X
Proprietary Solvent 2		Group 3		

Legend**IARC (International Agency for Research on Cancer)**

Group 2A - Probably Carcinogenic to Humans

Group 3 IARC components are "not classifiable as human carcinogens"

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

X - Present

Reproductive toxicity May damage fertility or the unborn child.**STOT - single exposure** May cause respiratory irritation. May cause drowsiness or dizziness.**STOT - repeated exposure** Causes damage to organs through prolonged or repeated exposure.**Product Information (Numerical measures of toxicity)****Acute Oral LD50 (Rat):** 416 mg/kg**Acute Dermal LD50 (Rabbit):** 2,000-5,000 mg/kg**Acute Inhalation LC50 (Rat):** >2.31 mg/L (4-hr)**Eye Irritation:** Moderately irritating.**Dermal Irritation:** Slightly irritating.**Dermal Sensitization:** Not a skin sensitizer.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects. This pesticide is toxic to fish and wildlife. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from target areas. Do not contaminate water when disposing of equipment wash water or rinsate. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Proprietary Solvent 1	500: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	832: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 1072: 96 h <i>Pimephales promelas</i> mg/L LC50 static 1400: 96 h <i>Poecilia reticulata</i> mg/L LC50 static		4897: 48 h <i>Daphnia magna</i> mg/L EC50
Abamectin 71751-41-2		Rainbow Trout LC50: 4.3 µg/l		<i>Daphnia Magna</i> LC50: 0.47 µg/l
Proprietary Solvent 2	6: 72 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 0.42: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	5: 48 h <i>Oryzias latipes</i> mg/L LC50		

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
Proprietary Solvent 1	-0.46
Proprietary Solvent 2	4.17

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
Abamectin 71751-41-2	Toxic

14. TRANSPORT INFORMATION

DOT

Note: Packages with inner packaging not over 5 liters (1.3 gallons) each may be reclassified as Limited Quantity.

Inner packages greater than 5L/ 1.3 gal:

UN/ID No UN2902
Proper Shipping Name Pesticides, liquid, toxic, N.O.S. (abamectin)
Hazard Class 6.1
Packing Group III

IATA

UN/ID No UN2902
Proper Shipping Name Pesticides, liquid, toxic, N.O.S. (abamectin)
Hazard Class 6.1
Packing Group III
Marine Pollutant Yes

IMDG

UN/ID No UN2902
Proper Shipping Name Pesticides, liquid, toxic, N.O.S. (abamectin)
Hazard Class 6.1
Packing Group III
Marine Pollutant Yes

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**

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

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Proprietary Solvent 1	Proprietary	19-21	1.0
Abamectin - 71751-41-2	71751-41-2	1.8-2.0	1.0

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Proprietary Solvent 1	Developmental
Abamectin - 71751-41-2	Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
N-methyl-2-pyrrolidone 872-50-4	X	X	X
Abamectin 71751-41-2	X		
BHT (Butylated hydroxytoluene) 128-37-0	X	X	X

EPA Pesticide Registration Number 66222-139

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: Warning

May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Harmful if inhaled or absorbed with the skin. Avoid contact with skin or clothing. Avoid breathing spray mist or contact with skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

Difference between SDS and EPA pesticide label

	EPA	OSHA
Signal Word	Warning	Danger
Acute toxicity - Oral	May be fatal if swallowed	Toxic if swallowed
Acute toxicity - Dermal	Harmful if absorbed with the skin	May be harmful in contact with skin
Acute toxicity - Inhalation	Harmful if inhaled	Toxic if inhaled
Skin corrosion/irritation	N/A	Causes skin irritation
Serious eye damage/eye irritation	Causes substantial but temporary eye injury	Causes serious eye irritation
Carcinogenicity	N/A	May cause cancer
Reproductive toxicity	N/A	May damage fertility or the unborn child
STOT - single exposure	N/A	May cause respiratory irritation. May cause drowsiness or dizziness
STOT - repeated exposure	N/A	Causes damage to organs through prolonged or repeated exposure

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	2	1	0	None
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	2	1	0	See section 8

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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