



Safety Data Sheet

Issue Date: 05-Mar-2013

Revision Date: 25-Jul-2014

Version 1

1. IDENTIFICATION

Product Identifier

Product Name Warfox

Other means of identification

SDS # ADAMA-040

Registration Number(s) EPA Reg. No. 66222-252

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

Emergency Telephone Number

Company Phone Number 1-919-256-9300

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

EMERGENCY OVERVIEW: 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. The product contains no substances which, at their given concentration, are considered to be hazardous to health.

Appearance Light brown granules

Physical State Solid

Odor Slight

Classification

Reproductive toxicity

Category 1B

Signal Word

Danger

Hazard Statements

May damage fertility or the unborn child



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

Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
flumioxazin (ISO)N -(7-fluoro-3,4-dihydro-3-oxo-4-prop-2-ynyl-2 H -1,4-benzoxazin-6-yl)cyclohex-1-ene-1,2- dicarboxamide	103361-09-7	50-52

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. If exposed or concerned: Get medical advice/attention.

Eye Contact

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.

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

Give oxygen if breathing is difficult. If breathing has stopped, call 911, give artificial respiration. Call a physician.

Ingestion 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 cause brief and/or minor eye irritation. May cause brief and/or minor skin irritation. Inhalation may cause mild respiratory irritation. Individuals with anemia or preexisting diseases of the blood may have increased susceptibility to the toxicity of excessive exposures.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray (fog). Foam. Dry chemical. Carbon dioxide (CO₂).

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Not determined.

Hazardous Combustion Products Toxic fumes may be released. Carbon oxides. Nitrogen oxides (NO_x). Fluorine compounds.

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 Vacuum or sweep up material and place in a disposal container. Wash area with soap and water. Pick up wash liquid with inert absorbent and place in a chemical waste container for disposal.

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. Use only with adequate ventilation. 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

Storage Conditions 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. Store at ambient conditions. Do not contaminate water, food or feed by storage, disposal or by cleaning equipment. Store in a cool, well-ventilated area, away from ignition sources and incompatible materials. Keep container tightly closed. Store locked up.

Packaging Materials Do not reuse container.

Incompatible Materials Strong oxidizing agents. Chlorates. Nitrates. Peroxides.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Controls THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS OF END USE PRODUCTS CONTAINING THIS MATERIAL, CONSULT THE SDS OR PRODUCT LABEL FOR THE END USE PRODUCT.

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

Physical State	Solid	Odor	Slight
Appearance	Light brown granules		

Color	light brown	Odor Threshold	Not determined
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	5.4 @ 25°C (1% suspension)		
Melting Point/Freezing Point	Not determined		
Boiling Point/Boiling Range	Not determined		
Flash Point	Not applicable		
Evaporation Rate	Not determined		
Flammability (Solid, Gas)	Not determined		
Upper Flammability Limits	Not applicable		
Lower Flammability Limit	Not applicable		
Vapor Pressure	Not determined		
Vapor Density	Not determined		
Specific Gravity	Not determined		
Water Solubility	Dispersible		
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	0.49 g/cc (30.8 lb/cu.ft.)		

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

Keep out of reach of children.

Incompatible Materials

Strong oxidizing agents. Chlorates. Nitrates. Peroxides.

Hazardous Decomposition Products

Toxic fumes may be released. Carbon oxides. Nitrogen oxides (NOx). Fluorine.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Avoid contact with eyes.

Skin Contact Avoid contact with skin.

Inhalation Avoid breathing vapors or mists.

Ingestion Do not taste or swallow.

Component Information Not available

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 This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Reproductive toxicity May damage fertility or the unborn child.

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects. This product is toxic to non-target plants and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift or runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment wash waters. This pesticide is toxic to plants and should be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

Component Information Not available

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

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

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT Not regulated

IATA

UN/ID No	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s. (Flumioxazin)
Hazard Class	9
Packing Group	III
Description	Marine Pollutant

IMDG

UN/ID No	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s. (Flumioxazin)
Hazard Class	9
Packing Group	III
Marine Pollutant	This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

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

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

AICS - Australian Inventory of Chemical Substances

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

Not determined

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Not determined

EPA Pesticide Registration Number : 66222-252**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 inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing dust and spray mist. Avoid contact with skin, eyes or clothing.

Difference between SDS and EPA pesticide label

	EPA	OSHA
Signal Word	Caution	Danger
Acute toxicity - Dermal	Harmful if absorbed through the skin	N/A
Acute toxicity - Inhalation (Vapors)	Harmful if inhaled	N/A
Serious eye damage/eye irritation	Causes moderate eye irritation	N/A
Reproductive toxicity	N/A	May damage fertility or the unborn child

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	1	1	0	Not determined
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	1	1	0	Not determined

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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