



Safety Data Sheet

Issue Date: 07-Jan-2013

Revision Date: 06-Nov-2015

Version 2

1. IDENTIFICATION

Product Identifier

Product Name VISE

Other means of identification

SDS # ADAMA-046

Registration Number(s) EPA Reg. No. 66222-244
UN/ID No UN3082

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 Light amber liquid

Physical State Liquid

Odor Mild

Classification

Acute toxicity – Inhalation (Dusts/Mists)	Category 4
Eye Damage/Irritation	Category 2

Hazards Not Otherwise Classified (HNOC)

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

Signal Word

Warning

Hazard Statements

Harmful if inhaled
Causes serious eye irritation

**Precautionary Statements – Prevention**

Avoid breathing dusts/mists
Use only outdoors or in a well-ventilated area
Wash hands, face, and exposed skin thoroughly after washing

Precautionary Statements – Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing
Call a poison center/doctor if you feel unwell
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
If eye irritation persists: Get medical advice/attention

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	46.81-49.71
Fomesafen	72178-02-0	9.31-10.29

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 poison control center or doctor for further treatment advice.
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 be harmful if swallowed. May be harmful in contact with skin.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically. If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam. Dry chemical. Carbon dioxide (CO₂).

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 May emit toxic fumes under fire conditions.

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	Reclaim where possible. Absorb with inert material or sweep up, and then place in suitable container for chemical waste. 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. Wash contaminated clothing before reuse. Use in accordance with product label instructions. Do not eat, drink, smoke, or apply cosmetics while handling this product.
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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 out of the reach of children. Keep/store only in original container. Do not contaminate water, food or feed by storage, disposal or by cleaning equipment. Store at ambient conditions.
Incompatible Materials	None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Exposure Guidelines</u>	The following information is given as general guidance
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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	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	Liquid	Odor	Mild
Appearance	Light amber liquid	Odor Threshold	Not determined
Color	Light amber		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	6.87	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	Not determined	
Flash Point	> 110 °C / > 230 °F	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Liquid-not applicable	
Upper Flammability Limits	Not applicable	
Lower Flammability Limit	Not applicable	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	Not determined	
Water Solubility	Not determined	
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	205@25°C; 95.7@40°C centipoise	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
Density	1.108 g/cm ³ @25°C (9.22 lb/gal)	
	1.095 g/cm ³ @ 40°C (9.14 lb/gal)	

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.
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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**

Eye Contact	Causes serious eye irritation.
Skin Contact	May be harmful in contact with skin.
Inhalation	Harmful if inhaled.
Ingestion	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 ³ (Rat) 4 h
Fomesafen 72178-02-0	= 1250 mg/kg (Rat)	> 1 g/kg (Rabbit)	-

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.

Product Information (Numerical measures of toxicity)

Acute Oral LD50 (Rat): >2,000 mg/kg

Acute Dermal LD50 (Rabbit): >5,000 mg/kg

Acute Inhalation LC50 (Rat): >2.04 mg/L (4-hr)

Eye Irritation: Severely irritating.

Dermal Irritation: Moderately irritating.

Dermal Sensitization: Not a skin sensitizer.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Harmful to aquatic life with long lasting effects. For terrestrial uses only. 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. Do not apply when weather conditions favor drift from target area.

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
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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 (450 Lt.): Not regulated

Package size larger than 119 Gallons (450 Lt.):

UN3082, Environmentally hazardous substance, liquid, n.o.s. (Metolachlor), 9, PG III, Marine pollutant.

IATA**UN/ID No**

UN3082

Proper Shipping Name

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

Hazard Class

9

Packing Group

III

IMDG**UN/ID No**

UN3082

Proper Shipping Name

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

Hazard Class

9

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 %
Fomesafen - 72178-02-0	72178-02-0	9.31-10.29	1.0

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
Metolachlor II 51218-45-2	X		
Fomesafen 72178-02-0	X		

EPA Pesticide Registration Number 66222-244**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: Danger

Corrosive. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes or on clothing. This product may cause skin sensitization reactions in some people. Wear appropriate protective eyewear such as goggles or face shield. 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	Danger	Warning
Acute toxicity - Oral	Harmful if swallowed	May be harmful if swallowed
Acute toxicity - Dermal	N/A	May be harmful in contact with skin
Acute toxicity – Inhalation	N/A	Harmful if inhaled
Serious eye damage/eye irritation	Causes irreversible eye damage	Causes serious eye irritation
Skin sensitization	May cause skin sensitization reactions in some people	N/A

16. OTHER INFORMATION**NFPA****Health Hazards****Flammability****Instability****Special Hazards**

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None

HMIS**Health Hazards****Flammability****Physical Hazards****Personal Protection**

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See section 8

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07-Jan-2013

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06-Nov-2015

Revision Note:

Updated format from 28-Aug-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