

**Issuing Date** 06-Oct-2023

**Revision Date** 31-Jan-2024

**Revision Number** 2

## 1. Identification

### Product identifier

**Product Name** Willowood Metola 8EC

### Other means of identification

**EPA Reg. No.** 87290-81

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended use** Herbicide

**Restrictions on use** Use only as directed on product label

### Details of the supplier of the safety data sheet

#### Supplier Address

Generic Crop Science, LLC  
1887 Whitney Mesa Dr # 9740  
Henderson, NV 89014-2069  
1-844-200-FARM (3276)

#### E-mail

regulatory@farmersbusinessnetwork.com

#### Emergency telephone number

For Emergency Medical Assistance (Human or Animal) contact Rocky Mountain  
Poison Control at 866-767-5040.

For Chemical Emergency Assistance (Spill, Leak, Fire or Accident contact  
CHEMTREC at 800-424-9300 (North America) or 703-527-3887 (International).

## 2. Hazard(s) identification

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1B

### Hazards not otherwise classified (HNOC)

Not applicable.

### Label elements

**Danger**

**Hazard statements**

Causes serious eye damage.

May cause cancer.

**Precautionary Statements - Prevention**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/clothing and eye/face protection.

**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.

Immediately call a POISON CENTER or doctor.

**Precautionary Statements - Storage**

Store locked up.

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant.

**Other information**

May be harmful if swallowed. Causes mild skin irritation. Toxic to aquatic life with long lasting effects.

### 3. Composition/information on ingredients

**Substance**

Not applicable.

**Mixture**

Chemical name	CAS No.	Weight-%	Trade secret
Metolachlor	51218-45-2	80 - 90	*
Solvent Naphtha (Petroleum), Heavy Aromatic	64742-94-5	5 - 10	*
Castor oil, ethoxylated	61791-12-6	3 - 7	*
Calcium dodecylbenzenesulfonate	26264-06-2	3 - 7	*
2-Methylnaphthalene	91-57-6	1 - 5	*
Naphthalene	91-20-3	0.5 - < 1	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. First-aid measures

**Description of first aid measures****General advice**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

**Inhalation**

Remove to fresh air. Get medical attention immediately if symptoms occur.

**Eye contact**

Get immediate medical attention. Rinse immediately with plenty of water, also under the

eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.

**Skin contact** Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

**Self-protection of the first aider** Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

#### **Most important symptoms and effects, both acute and delayed**

**Symptoms** Burning sensation. Prolonged contact may cause redness and irritation.

**Effects of Exposure** May cause cancer.

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

**Note to physicians** Treat symptomatically.

### **5. Fire-fighting measures**

**Suitable Extinguishing Media** Dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray.

**Unsuitable extinguishing media** None known based on information supplied.

**Specific hazards arising from the chemical** None known based on information supplied.

**Hazardous combustion products** Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas.

#### **Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### **6. Accidental release measures**

#### **Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation.

**Other information** Refer to protective measures listed in Sections 7 and 8.

#### **Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

### **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. Do not eat, drink or smoke when using this product. Use personal protection equipment.

**Conditions for safe storage, including any incompatibilities****Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

**8. Exposure controls/personal protection****Control parameters****Exposure Limits**

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
2-Methylnaphthalene 91-57-6	TWA: 0.05 ppm SL: 3 mg/100 cm <sup>2</sup> S*	-	-
Naphthalene 91-20-3	TWA: 10 ppm S*	TWA: 10 ppm TWA: 50 mg/m <sup>3</sup> (vacated) TWA: 10 ppm (vacated) TWA: 50 mg/m <sup>3</sup> (vacated) STEL: 15 ppm (vacated) STEL: 75 mg/m <sup>3</sup>	IDLH: 250 ppm TWA: 10 ppm TWA: 50 mg/m <sup>3</sup> STEL: 15 ppm STEL: 75 mg/m <sup>3</sup>

**Biological occupational exposure limits**

Chemical name	ACGIH
Naphthalene 91-20-3	- (1-Naphthol with hydrolysis plus 2-Naphthol with hydrolysis) - end of shift

**Appropriate engineering controls****Engineering controls**

Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Tight sealing safety goggles.

**Hand protection**

Wear suitable gloves.

**Skin and body protection**

Wear suitable protective clothing.

**Respiratory protection**

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Environmental exposure controls**

Avoid release to the environment.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wash hands before breaks and after work.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance	Viscous liquid
Physical state	Liquid
Color	Pale yellow
Odor	Mildly aromatic
Odor threshold	No data available

Property	Values	Remarks • Method
pH	7.22	1% w/w solution
pH (as aqueous solution)		No data available
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flash point		No data available
Evaporation rate		No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Vapor pressure		No data available
Relative vapor density		No data available
Relative density	1.1041 g/mL	No data available
Water solubility		No data available
Solubility(ies)		No data available
Partition coefficient		No data available
Autoignition temperature		No data available
Decomposition temperature		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available

### Other information

Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
VOC content	No information available
Liquid Density	No information available
Bulk density	No information available

## 10. Stability and reactivity

Reactivity	None under normal use conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Incompatible materials.
Incompatible materials	Strong acids, Strong bases, Strong oxidizing agents.
Hazardous decomposition products	None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Causes mild skin irritation.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Symptoms</b>	Redness. Burning. May cause blindness. Prolonged contact may cause redness and irritation.
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### Acute toxicity

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### Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document:

<b>ATEmix (oral)</b>	> 2,000 mg/kg
<b>ATEmix (dermal)</b>	> 5,000 mg/kg
<b>ATEmix (inhalation-vapor)</b>	> 20 mg/l

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Metolachlor 51218-45-2	> 2000 mg/kg ( Rat )	= 12700 mg/kg ( Rabbit )	> 3.91 mg/L ( Rat ) 4 h
Solvent Naphtha (Petroleum), Heavy Aromatic 64742-94-5	> 5000 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 4688 mg/m <sup>3</sup> (Vapor) 4h
Castor oil, ethoxylated 61791-12-6	-	> 2000 mg/kg ( Rat )	-
Calcium dodecylbenzenesulfonate 26264-06-2	1086 - 1980 mg/kg ( Rat )	-	-
2-Methylnaphthalene 91-57-6	= 1630 mg/kg ( Rat )	-	-
Naphthalene 91-20-3	= 1110 mg/kg ( Rat )	= 1120 mg/kg ( Rabbit )	> 0.4 mg/L ( Rat ) 4 h

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Skin corrosion/irritation</b>	Classification based on data available for ingredients. Causes mild skin irritation.
<b>Serious eye damage/eye irritation</b>	Classification based on data available for ingredients. Causes burns. Causes serious eye damage.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Naphthalene 91-20-3	A3	Group 2B	Reasonably Anticipated	X

#### Legend

**ACGIH (American Conference of Governmental Industrial Hygienists)**

A3 - Animal Carcinogen

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

Group 2B - Possibly Carcinogenic to Humans

**NTP (National Toxicology Program)**

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

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

X - Present

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**Other adverse effects** No information available.

**Interactive effects** No information available.

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Metolachlor 51218-45-2	EC50: =57.1mg/L (72h, Desmodesmus subspicatus) EC50: 0.0448 - 0.0568mg/L (96h, Pseudokirchneriella subcapitata)	LC50: 8.6 - 12mg/L (96h, Lepomis macrochirus) LC50: 3.3 - 4.6mg/L (96h, Oncorhynchus mykiss) LC50: 5.4 - 12mg/L (96h, Pimephales promelas) LC50: 7.4 - 10.5mg/L (96h, Poecilia reticulata)	-	LC50: =25.1mg/L (48h, Daphnia magna) EC50: =4.25mg/L (48h, Daphnia magna) EC50: 13 - 18.4mg/L (48h, Daphnia magna)
Solvent Naphtha (Petroleum), Heavy Aromatic 64742-94-5	-	LC50: =19mg/L (96h, Pimephales promelas) LC50: =2.34mg/L (96h, Oncorhynchus mykiss) LC50: =1740mg/L (96h, Lepomis macrochirus) LC50: =45mg/L (96h, Pimephales promelas)	-	EC50: =0.95mg/L (48h, Daphnia magna)

		LC50: =41mg/L (96h, Pimephales promelas)		
Castor oil, ethoxylated 61791-12-6	-	LC50: >45mg/L (96h, Danio rerio)	-	-
Calcium dodecylbenzenesulfonate 26264-06-2	-	LC50: =10.8mg/L (96h, Oncorhynchus mykiss)	-	-
Naphthalene 91-20-3	-	LC50: 5.74 - 6.44mg/L (96h, Pimephales promelas) LC50: =1.6mg/L (96h, Oncorhynchus mykiss) LC50: 0.91 - 2.82mg/L (96h, Oncorhynchus mykiss) LC50: =1.99mg/L (96h, Pimephales promelas) LC50: =31.0265mg/L (96h, Lepomis macrochirus)	-	LC50: =2.16mg/L (48h, Daphnia magna) EC50: =1.96mg/L (48h, Daphnia magna) EC50: 1.09 - 3.4mg/L (48h, Daphnia magna)

**Persistence and degradability** No information available.

#### Bioaccumulation

#### Component Information

Chemical name	Partition coefficient
Metolachlor 51218-45-2	2.9
Solvent Naphtha (Petroleum), Heavy Aromatic 64742-94-5	6.5
Castor oil, ethoxylated 61791-12-6	4.297
2-Methylnaphthalene 91-57-6	3.86
Naphthalene 91-20-3	3.4

**Other adverse effects** No information available.

### 13. Disposal considerations

#### Disposal methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.

### 14. Transport information

**DOT** Not classified as a hazardous material / dangerous good under the hazardous material regulations.

IATA	Not regulated in quantities not to exceed 5 liter per individual container.
<b>ID number</b>	UN3082
<b>Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metolachlor, Solvent Naphtha Petroleum Heavy Aromatic)
<b>Hazard Class(es)</b>	9
<b>Packing group</b>	III
<b>Hazard Label</b>	Class 9, Environmentally Hazardous

<b>IMDG</b>	Not regulated in quantities not to exceed 5 liter per individual container.
<b>ID number</b>	UN3082
<b>Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metolachlor, Solvent Naphtha Petroleum Heavy Aromatic)
<b>Hazard Class(es)</b>	9
<b>Packing group</b>	III
<b>Hazard Label</b>	Class 9, Environmentally Hazardous
<b>Marine Pollutant/ Environmentally Hazardous Substance</b>	YES

## 15. Regulatory information

### International Inventories

Contact supplier for inventory compliance status

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Naphthalene - 91-20-3	0.1

#### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### **CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Calcium dodecylbenzenesulfonate 26264-06-2	1000 lb	-	-	X
Naphthalene 91-20-3	100 lb	X	X	X

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
Calcium dodecylbenzenesulfonate 26264-06-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ
Naphthalene 91-20-3	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical name	California Proposition 65
Naphthalene - 91-20-3	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Metolachlor 51218-45-2	X	-	-
Calcium dodecylbenzenesulfonate 26264-06-2	X	X	X
2-Methylnaphthalene 91-57-6	X	-	-
Naphthalene 91-20-3	X	X	X
1-Methylnaphthalene 90-12-0	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number 87290-81

**16. Other information**

<b>NFPA</b>	<b>Health hazards</b> 3	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Special hazards</b> -
<b>HMIS</b>	<b>Health hazards</b> 3 *	<b>Flammability</b> 0	<b>Physical hazards</b> 0	<b>Personal protection</b> X
<i>Chronic Hazard Star Legend</i>		<i>* = Chronic Health Hazard</i>		

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: Exposure controls/personal protection**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitizers		

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AELG(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal

Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Issuing Date** 06-Oct-2023

**Revision Date** 31-Jan-2024

**Revision Note** Revise emergency telephone number.

**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**