

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
US - OSHA Hazard Communication Standard (29 CFR 1910.1200)

Issuing Date 04-Nov-2022

Revision Date 04-Nov-2022

Revision Number 1

1. Identification

Product identifier

Product Name Willowood Metriosate GT

Other means of identification

Product Code(s) 92474-4

UN/ID no NA1993

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

Manufacturer Address

Willowood Glyphosate, LLC
1887 Whitney Mesa Drive #9740
Henderson, NV 89014-2069
1-844-200-FARM (3276)

E-mail regulatory@genericcropscience.com

Emergency telephone number

Emergency telephone CHEMTREC: +1-703-527-3887 (INTERNATIONAL)
1-800-424-9300 (NORTH AMERICA)
24/7 Health Emergencies: Call 800-858-7378 (National Pesticide Information Center)

2. Hazard(s) identification

Classification

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

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Carcinogenicity	Category 1B
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2
Flammable liquids	Category 4

Hazards not otherwise classified (HNOC)

Not applicable.

Label elements

Danger

Hazard statements

Combustible liquid.
 Harmful if inhaled.
 May cause cancer.
 Suspected of damaging fertility or the unborn child.
 May cause 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.
 Wear protective gloves/clothing and eye/face protection.
 Use only outdoors or in a well-ventilated area.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 Keep away from flames and hot surfaces. - No smoking.

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 In case of fire: Use dry chemical, CO₂, water spray or alcohol-resistant foam to extinguish.

Precautionary Statements - Storage

Store locked up.
 Store in a well-ventilated place. Keep cool.

Precautionary Statements - Disposal

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

Other information

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

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No	Weight-%	Trade secret
Glyphosate	1071-83-6	20 - 30	*
Metolachlor	51218-45-2	20 - 30	*
Potassium hydroxide	1310-58-3	5 - < 10	*
Isobutyl alcohol	78-83-1	5 - < 10	*
Mesotrione	104206-82-8	1 - 5	*
Silica, amorphous, precipitated and gel	112926-00-8	1 - 5	*

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

4. First-aid measures

Description of first aid measures

General advice	IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapors or mists. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms Coughing and/ or wheezing. Difficulty in breathing.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO ₂). Water spray. Alcohol resistant foam.
Unsuitable extinguishing media	None known based on information supplied.
Specific hazards arising from the chemical	Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	Yes.
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 Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Ensure adequate ventilation. Avoid breathing vapors or mists.

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

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. 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 Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation. 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. Remove contaminated clothing and shoes. In case of insufficient ventilation, wear suitable respiratory equipment.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations. 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
Potassium hydroxide 1310-58-3	Ceiling: 2 mg/m ³	(vacated) Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³
Isobutyl alcohol 78-83-1	TWA: 50 ppm	TWA: 100 ppm TWA: 300 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 150 mg/m ³	IDLH: 1600 ppm TWA: 50 ppm TWA: 150 mg/m ³
Silica, amorphous, precipitated and gel 112926-00-8	-	TWA: 20 mppcf : (80)/(%) SiO ₂ mg/m ³ TWA (vacated) TWA: 6 mg/m ³ : (80)/(%) SiO ₂ mg/m ³ TWA	-

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.
General hygiene considerations	Do not eat, drink or smoke when using this product. Contaminated work. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Light brown suspension
Physical state	Liquid
Color	Light brown
Odor	Strong aromatic
Odor threshold	No data available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	3.79	
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	80.8 °C / 177.4 °F	
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
Vapor density		No data available
Relative density		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	562.7 mPa.s @ 20°C	
	204.0mPa.s @ 30°C	

Other information

Explosive properties	No information available
Oxidizing properties	None
Softening point	No information available
Molecular weight	No information available
VOC content	No information available
Liquid Density	1.2117 g/mL
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 Heat, flames and sparks. Incompatible materials.

Incompatible materials Bases. Oxidizers.

Hazardous decomposition products Carbon oxides. Phosphorus oxides. Nitrogen oxides (NOx).

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. Harmful by inhalation. (based on components).

Eye contact Based on available data, the classification criteria are not met.

Skin contact Based on available data, the classification criteria are not met.

Ingestion Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Coughing and/ or wheezing.

Acute toxicity

Numerical measures of toxicity

Oral LD50 > 5,000 mg/kg (rat), OECD 425
Dermal LD50 > 5,000 mg/kg (rat), OECD 402
Inhalation LC50 > 3.64 mg/l (rat, 4 hr), (dust/mist), OECD 403

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Glyphosate 1071-83-6	= 4873 mg/kg (Rat)	= 7940 mg/kg (Rabbit)	> 4.98 mg/L (Rat) 4 h
Metolachlor 51218-45-2	> 2000 mg/kg (Rat)	= 12700 mg/kg (Rabbit)	> 3.20 mg/L (Rat) 4 h
Potassium hydroxide 1310-58-3	= 284 mg/kg (Rat)	-	-
Isobutyl alcohol 78-83-1	= 2460 mg/kg (Rat)	= 3400 mg/kg (Rabbit)	> 18.18 mg/L (Rat) 6 h
Mesotrione 104206-82-8	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-

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

Skin corrosion/irritation On basis of test data: Non-irritant.

Product Information	
Method	OECD Test No. 404: Acute Dermal Irritation/Corrosion
Species	Rabbit
Exposure route	Dermal
Effective dose	0.5 mL

Exposure time	4 hours
Results	Non-irritating to the skin

Serious eye damage/eye irritation On basis of test data: Non-irritant.

Product Information	
Method	OECD Test No. 405: Acute Eye Irritation/Corrosion
Species	Rabbit
Exposure route	Eye
Effective dose	0.1 mL
Results	Non-irritant

Respiratory or skin sensitization Did not cause allergic skin reactions when tested in guinea pigs.

Product Information	
Method	OECD Test No. 406: Skin Sensitization
Species	Guinea pig
Exposure route	Dermal
Results	Did not cause sensitization on laboratory animals

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
Glyphosate 1071-83-6	-	Group 2A	-	X
Silica, amorphous, precipitated and gel 112926-00-8	-	Group 3	-	-

Legend

IARC (International Agency for Research on Cancer)

Group 2A - Probably Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

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

X - Present

Reproductive toxicity Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.

STOT - single exposure No information available.

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Target organ effects Respiratory system. Eyes. Skin. Central nervous system.

Aspiration hazard No information available.

Other adverse effects No information available.

Interactive effects No information available.

12. Ecological information

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

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Glyphosate 1071-83-6	EC50: =485mg/L (72h, Pseudokirchneriella subcapitata) EC50: =5.5554mg/L (96h, Pseudokirchneriella subcapitata)	LC50: 5.19 - 5.83mg/L (96h, Lepomis macrochirus) LC50: 1.3 - 2.5mg/L (96h, Lepomis macrochirus) LC50: 9.9 - 12mg/L (96h, Cyprinus carpio) LC50: 607 - 638mg/L (96h, Cyprinus carpio) LC50: 1.1 - 1.6mg/L (96h, Oncorhynchus mykiss) LC50: 1.7 - 5mg/L (96h, Pimephales promelas)	-	EC50: 2.6 - 3.4mg/L (48h, Daphnia magna)
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)
Isobutyl alcohol 78-83-1	-	LC50: =375mg/L (96h, Pimephales promelas) LC50: 1370 - 1670mg/L (96h, Pimephales promelas) LC50: 1480 - 1730mg/L (96h, Lepomis macrochirus) LC50: 1120 - 1520mg/L (96h, Oncorhynchus mykiss)	-	EC50: =1300mg/L (48h, Daphnia magna) EC50: 1070 - 1933mg/L (48h, Daphnia magna)

Persistence and degradability No information available.

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Glyphosate 1071-83-6	0.002
Metolachlor 51218-45-2	2.9
Potassium hydroxide 1310-58-3	0.83
Isobutyl alcohol 78-83-1	1

Other adverse effects No information available.

13. Disposal considerations

Waste treatment 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 Regulated when shipped domestically in individual containers less than 119 gallons ({ 173.150(f(2)) of 49CFR). For packages greater than 119 Gallons: NA1993 COMBUSTIBLE LIQUID, N.O.S. Combustible liquid III (Potassium hydroxide: RQ (kg)= 454.00) Potassium hydroxide: RQ (lb)= 1000.00 Potassium hydroxide: RQ (kg)= 5675.00 Potassium hydroxide: RQ (lb)= 12500.00 IB3, T1,TP1, 148 NP Glyphosate, Metolachlor NA1993, COMBUSTIBLE LIQUID, N.O.S. (Isobutyl alcohol), III 128
IATA	Not regulated in quantities less than 5 liter per individual container. See IATA SP A197 UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III Glyphosate, Metolachlor A97, A158, A197 UN3082, Environmentally hazardous substance, liquid, n.o.s. (Glyphosate, Metolachlor), 9, III 9L
IMDG	Not regulated in quantities less than 5 liter per individual container. See IMDG 2.10.2.7 UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. 9 III F-A, S-F P Glyphosate, Metolachlor 274, 335, 969 UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Glyphosate, Metolachlor), 9, III, Marine pollutant

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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

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
Potassium hydroxide 1310-58-3	1000 lb	-	-	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)
Potassium hydroxide 1310-58-3	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ
Isobutyl alcohol 78-83-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical name	California Proposition 65
Glyphosate - 1071-83-6	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Glyphosate 1071-83-6	X	-	-
Metolachlor 51218-45-2	X	-	-
Potassium hydroxide 1310-58-3	X	X	X
Isobutyl alcohol 78-83-1	X	X	X
Propylene glycol 57-55-6	X	-	X
Silica, amorphous, precipitated and gel 112926-00-8	X	X	X
Glycerin 56-81-5	X	X	X

Sodium hydroxide 1310-73-2	X	X	X
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U.S. EPA Label Information

EPA Pesticide Registration Number 92474-4

16. Other information

NFPA	Health hazards 1	Flammability 2	Instability 0	Special hazards -
HMIS	Health hazards 1*	Flammability 2	Physical hazards 0	Personal protection 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

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) (AEGl(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

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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