

SAFETY DATA SHEET

Issuing Date 05-May-2020	Revision Date 26-Apr-2024	Revision Number 2
1. Identification		
Product identifier		
Product Name	Willowood Oxyflo 2EC	
Other means of identification		
EPA Reg. No.	87290-8	
Synonyms	Oxyfluoren	
Recommended use of the chemica	l 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 Drive #9740 Henderson, NV 89014-2069 1-844-200-FARM (3276)		
<u>E-mail</u>	regulatory@farmersbusinessnetwork.com	
Emergency telephone number	For Emergency Medical Assistance (Human or Animal) conta Poison Control at 866-767-5040.	act Rocky Mountain
	For Chemical Emergency Assistance (Spill, Leak, Fire or Acc CHEMTREC at 800-424-9300 (North America) or 703-527-38	
2. Hazard(s) identification		

Classification

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

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 1B
Aspiration hazard	Category 1

Hazards not otherwise classified (HNOC) Not applicable

Label elements

Danger

Hazard statements Causes skin irritation. Causes serious eye irritation. May cause cancer.

May be fatal if swallowed and enters airways.



Precautionary Statements - Prevention

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Wear protective gloves/protective clothing/eye protection/face protection Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention Specific treatment (see .? on this label) 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 water and soap If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash it before reuse IF SWALLOWED: Immediately call a POISON CENTER or doctor Do NOT induce vomiting

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. May be harmful in contact with skin. Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

Unknown acute toxicity

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Synonyms

Oxyfluoren

Chemical name	CAS No	Weight-%	Trade secret
Naphtha (petroleum), heavy aromatic	64742-94-5	50-60	*
Anionic/nonionic blend	-	10-20	*
Octanamide, N,N-dimethyl-	1118-92-9	5-10	*
Decanamide, N,N-dimethyl-	14433-76-2	5-10	*
Naphthalene	91-20-3	5-10	*
Isobutyl alcohol	78-83-1	< 3	*

*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. Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Inhalation	Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed pulmonary edema may occur.
Eye contact	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. Get medical attention if irritation develops and persists.
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	ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.
Most important symptoms and effect	cts, both acute and delayed
Symptoms	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. May cause redness and tearing of the eyes. Burning sensation.
Indication of any immediate medica	I attention and special treatment needed
Note to physicians	Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances.

5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	No information available.
Specific hazards arising from the chemical	No information available.
Hazardous combustion products	Carbon oxides. Nitrogen oxides (NOx). Hydrogen fluoride.
Explosion data Sensitivity to mechanical impac	t None.
Sensitivity to static discharge	None.
Special protective equipment 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	Ensure adequate ventilation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.
Other information	Refer to protective measures listed in Sections 7 and 8.
Methods and material for containme	ent and cleaning up
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	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. Take off contaminated clothing and wash before reuse.
Conditions for safe storage, includ	ing 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. Store away from other materials.

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
Naphthalene	TWA: 10 ppm	TWA: 10 ppm	IDLH: 250 ppm
91-20-3	S*	TWA: 50 mg/m ³	TWA: 10 ppm
		(vacated) TWA: 10 ppm	TWA: 50 mg/m ³
		(vacated) TWA: 50 mg/m ³	STEL: 15 ppm
		(vacated) STEL: 15 ppm	STEL: 75 mg/m ³
		(vacated) STEL: 75 mg/m ³	-
Isobutyl alcohol	TWA: 50 ppm	TWA: 100 ppm	IDLH: 1600 ppm
78-83-1		TWA: 300 mg/m ³	TWA: 50 ppm
		(vacated) TWA: 50 ppm	TWA: 150 mg/m ³
		(vacated) TWA: 150 mg/m ³	-

Biological occupational exposure limits

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

Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, su	ch as personal protective equipment
Eye/face protection	If splashes are likely to occur, wear safety glasses with side-shields.
Hand protection	Wear suitable gloves. Impervious gloves.
Skin and body protection	Wear suitable protective clothing. Long sleeved 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. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties

internation on succe physical an		
Appearance		
Physical state	Liquid	
Color	Amber	
Odor	No data available	
Odor threshold	No data available	
Property_	Values	Remarks • Method
рН	4.98	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	98 °C / 208.4 °F	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosiv	e limits No data available	
Lower flammability or explosiv	ve limits No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	1.0471 g/mL	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	11.74 cSt @20.1°C	None known
Dynamic viscosity	No data available	None known
Other information	No information available	
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	None known based on information supplied.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents.
Hazardous decomposition products	s Carbon oxides. Nitrogen oxides (NOx). Hydrogen fluoride.

11. Toxicological information	

Information on likely routes of exposure

Product Information				
Inhalation	Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract.			
Eye contact	Specific test data for the substance or mixture is not available. May cause irritation. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.			
Skin contact	Repeated exposure may cause skin dryness or cracking. Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).			
Ingestion	Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.			
Symptoms related to the physical,	chemical and toxicological characteristics			
Symptoms	mptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness and tearing of the eyes.			
Acute toxicity				
Numerical measures of toxicity				
The following values are calculated based on chapter 3.1 of the GHS document . ATEmix (oral) 3,802.10 mg/kg ATEmix (dermal) 2,640.90 mg/kg ATEmix (inhalation-dust/mist) 195.07 mg/l				
Unknown acute toxicity				
Component Information	Orold D50 Dermold D50 Inholotion L C50			
Chemical name	Oral LD50 Dermal LD50 Inhalation LC50			

Naphtha (petroleum), heavy aromatic 64742-94-5	> 5000 mg/kg (Rat)	> 2 mL/kg (Rabbit)	> 590 mg/m³(Rat)4 h
Octanamide, N,N-dimethyl- 1118-92-9	= 1250 mg/kg (Rat)	400 - 2000 mg/kg (Rat)	-
Naphthalene 91-20-3	= 1110 mg/kg(Rat)	= 1120 mg/kg (Rabbit)	> 340 mg/m³ (Rat)1 h
Isobutyl alcohol 78-83-1	= 2460 mg/kg(Rat)	= 3400 mg/kg (Rabbit)	> 6.5 mg/L (Rat)4 h

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

Skin corrosion/irritation	Classification based on data available for ingredients. Irritating to skin.		
Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes serious eye irritation.		
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	A3	Group 2B	Reasonably	Х
91-20-3			Anticipated	

Legend

12. Ecological information

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Naphtha (petroleum), heavy aromatic 64742-94-5	-	LC50: =1740mg/L (96h, Lepomis macrochirus) LC50: =19mg/L (96h, Pimephales promelas)	5	EC50: =0.95mg/L (48h, Daphnia magna)

	1	r	
	LC50: =2.34mg/L (96h,		
	LC50: =45mg/L (96h,		
	Pimephales promelas)		
-	LC50: 0.91 - 2.82mg/L	-	EC50: 1.09 - 3.4mg/L
	(96h, Oncorhynchus		(48h, Daphnia magna)
	mykiss) LC50: 5.74 -		EC50: =1.96mg/L (48h,
	6.44mg/L (96h,		Daphnia magna) LC50:
	Pimephales promelas)		=2.16mg/L (48h,
			Daphnia magna)
	LC50: =31.0265mg/L		
	macrochirus)		
-	LC50: 1120 - 1520mg/L	-	EC50: 1070 - 1933mg/L
			(48h, Daphnia magna)
			EC50: =1300mg/L (48h,
			Daphnia magna)
	(96h, Lepomis		
	macrochirus) LC50:		
	=375mg/L (96h,		
	Pimephales promelas)		
	- -	 Oncorhynchus mykiss) LC50: =41mg/L (96h, Pimephales promelas) LC50: =45mg/L (96h, Pimephales promelas) LC50: 0.91 - 2.82mg/L (96h, Oncorhynchus mykiss) LC50: 5.74 - 6.44mg/L (96h, Pimephales promelas) LC50: =1.6mg/L (96h, Oncorhynchus mykiss) LC50: =1.99mg/L (96h, Pimephales promelas) LC50: =31.0265mg/L (96h, Lepomis macrochirus) LC50: 1120 - 1520mg/L (96h, Oncorhynchus mykiss) LC50: 1370 - 1670mg/L (96h, Pimephales promelas) LC50: 1480 - 1730mg/L (96h, Lepomis macrochirus) LC50: =375mg/L (96h, 	Oncorhynchus mykiss) LC50: =41mg/L (96h, Pimephales promelas) LC50: =45mg/L (96h, Pimephales promelas) - LC50: 0.91 - 2.82mg/L (96h, Oncorhynchus mykiss) LC50: 5.74 - 6.44mg/L (96h, Pimephales promelas) LC50: =1.6mg/L (96h, Pimephales promelas) LC50: =1.6mg/L (96h, Oncorhynchus mykiss) LC50: =1.99mg/L (96h, Pimephales promelas) LC50: =31.0265mg/L (96h, Lepomis macrochirus) - LC50: 1120 - 1520mg/L (96h, Oncorhynchus mykiss) LC50: 1370 - 1670mg/L (96h, Pimephales promelas) LC50: 1480 - 1730mg/L (96h, Lepomis macrochirus) LC50: =375mg/L (96h,

Persistence and degradability

No information available.

Bioaccumulation

There is no data for this product.

Component Information

Chemical name	Partition coefficient
Naphtha (petroleum), heavy aromatic 64742-94-5	2.9 - 6.1
Naphthalene 91-20-3	3.6
Isobutyl alcohol 78-83-1	0.79

Other adverse effects

No information available.

13. Disposal considerations

Waste treatment methods					
Waste from residues/unuse products	sidues/unused Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.				
Contaminated packaging	Do not reuse	Do not reuse empty containers.			
US EPA Waste Number	U140 U165				
Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes	
Naphthalene 91-20-3	U165	Included in waste streams: F024, F025, F034, F039, K001, K035,	-	U165	

K060, K087, K145

Isobutyl alcohol	U140	Included in waste	-	U140
78-83-1		streams: F005, F039		

Chamical name	DCDA Hologopotod	DCDA D Carica Wastes	DCDA E Series Wester	BCBA K Series Wester
Chemical name	RCRA - Halogenated	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
	Organic Compounds			
Naphthalene	-	-	Toxic waste	-
91-20-3			waste number F025	
			Waste description:	
			Condensed light ends,	
			spent filters and filter	
			aids, and spent desiccant	
			wastes from the	
			production of certain	
			chlorinated aliphatic	
			hydrocarbons, by free	
			radical catalyzed	
			processes. These	
			chlorinated aliphatic	
			hydrocarbons are those	
			having carbon chain	
			lengths ranging from one	
			to and including five, with	
			varying amounts and	
			positions of chlorine	
			substitution.	

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

Chemical name	California Hazardous Waste Status		
Naphthalene 91-20-3	Toxic		
91-20-3			

14. Transport information

<u>DOT</u>	Not regulated when shipped domestically, by highway, in individual containers containing less than 100 lbs of Naphthalene. The following classification only applies to a single container holding 100 lbs or more of Naphthalene.
ID number	UN3082
Proper shipping name	Environmentally Hazardous Substance, Liquid, N.O.S. (Naphtha (petroleum), heavy aromatic, naphthalene)
Hazard class(es)	9
Packing group	
Hazard Label	Class 9, Environmentally Hazardous
Marine pollutant/RQ Hazardous Substance	Naphthalene RQ = 100 lbs
IATA	Not regulated in quantities not to exceed 5 liters per individual container
ID number	UN3082
Proper shipping name	Environmentally Hazardous Substance, Liquid, N.O.S. (Naphtha (petroleum), heavy aromatic, naphthalene)
Hazard class(es)	9
Packing group	
Hazard Label	Class 9, Environmentally Hazardous
IMDG	Not regulated in quantities not to exceed 5 liters per individual container
ID number	UN3082
Proper shipping name	Environmentally Hazardous Substance, Liquid, N.O.S. (Naphtha (petroleum), heavy aromatic, naphthalene)
Hazard class(es)	9
Packing group	III
Hazard Label	Class 9, Environmentally Hazardous

Marine pollutant/ Environmentally Hazardous Substance YES

15. Regulatory information

International Inventories

TSCA

Contact supplier for inventory compliance status.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

US Federal Regulations

<u>SARA 313</u>

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
Naphthalene 91-20-3	100 lb	Х	Х	Х

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		
Naphthalene	100 lb	-		
91-20-3				
Isobutyl alcohol	5000 lb	-		
78-83-1				

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
Oxyfluorfen	X	-	-
42874-03-3			
Naphthalene	X	Х	Х
91-20-3			
Isobutyl alcohol	X	Х	Х

78-83-1			
1,2,4 Trimethylbenzene	Х	Х	Х
95-63-6			
Propylene glycol 57-55-6	Х	-	Х
57-55-6			
1-Hexanol	X	-	Х
111-27-3			

U.S. EPA Label Information

EPA Pesticide Registration Number 87290-8

16. Other info	ormation						
NFPA	Health hazar	rds 2	Flammabilit	y 1	Instability 0		Physical and chemical properties -
HMIS Chronic Hazard Star	Health hazar		Flammabilit lealth Hazard	y 1	Physical hazards	0	Personal protection X
Key or legend to	abbreviations and a	acronyms u	sed in the sat	ety data sh	eet		
Legend Section a TWA Ceiling	B: EXPOSURE CON TWA (time-weighted Maximum limit value	d average)	RSONAL PRO	TECTION STEL *	STEL (Short Skin designa		Exposure Limit)
Agency for Toxic S U.S. Environmenta European Food Sa EPA (Environmenta Acute Exposure G U.S. Environmenta U.S. Environmenta Food Research Jo Hazardous Substa International Unifo Japan GHS Classi Australia National NIOSH (National In National Library of National Library of National Toxicolog New Zealand's Ch Organization for E	nce Database rm Chemical Informa fication Industrial Chemicals nstitute for Occupatio Medicine's ChemID Medicine's PubMed y Program (NTP) emical Classification conomic Co-operation conomic Co-operation conomic Co-operation	ase Registry ChemView I () GL(s)) Federal Inse High Produc tion Databas Notification onal Safety a Plus (NLM (database (N and Informa n and Devel n and Devel	(ATSDR) Database ecticide, Fungi ction Volume C se (IUCLID) and Assessme and Health) CIP) ILM PUBMED ation Database opment Enviro	cide, and Ro chemicals ent Scheme (CCID) onment, Hea Production V	(NICNAS) Ith, and Safety Public olume Chemicals Pr		
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	provided in this Safe	ety Data Sh	eet is correct	to the best		inforn	4. nation and belief at the se, processing, storage,

ate 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