

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 13-Sep-2021 Revision Date 01-Mar-2022 Revision Number 1

1. Identification

Product identifier

Product Name GCS Bifenthrin 2EC

Other means of identification

Product Code(s) 94730-8

UN/ID no UN3352

Synonyms Bifenthrin

Recommended use of the chemical and restrictions on use

Recommended use Insecticide

Restrictions on useUse only as directed on product label

Details of the supplier of the safety data sheet

Manufacturer Address

Generic Crop Science,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 - Oral	Category 3
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Skin sensitization	Category 1B
Carcinogenicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 1
Aspiration hazard	Category 1
Flammable liquids	Category 4

Hazards not otherwise classified (HNOC)

Not applicable.

Label elements

Danger

Hazard statements

Combustible liquid.

Toxic if swallowed.

Harmful in contact with skin.

Toxic if inhaled.

May cause an allergic skin reaction.

May cause cancer.

Causes damage to organs through prolonged or repeated exposure.

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 Do not eat, drink or smoke when using this product Use only outdoors or in a well-ventilated area Contaminated work clothing must not be allowed out of the workplace 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 ON SKIN: Wash with plenty of water and soap

Call a POISON CENTER or doctor if you feel unwell

Take off contaminated clothing and wash it before reuse

If skin irritation or rash occurs: Get medical advice/attention

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Call a POISON CENTER or doctor

IF SWALLOWED: Immediately call a POISON CENTER or doctor

Do NOT induce vomiting

Rinse mouth

Keep cool

In case of fire: Use dry chemical, CO2, water spray or regular foam to extinguish

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

Causes mild skin irritation. Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

Unknown acute toxicity

5.5232 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

5.5232 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity 73.7124 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Synonyms Bifenthrin

Chemical name	CAS No	Weight-%	Trade secret
Solvent Naphtha (Petroleum), Heavy Aromatic	64742-94-5	64.59 - 68.59	*
Bifenthrin	82657-04-3	24.65 - 26.17	*
Proprietary surfactant blend	-	5 - 10	*
Naphthalene	91-20-3	< 0.5	*

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

4. First-aid measures

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get

medical advice/attention. Immediate medical attention is required.

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. Immediate medical attention is required. Do not use

mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory

medical device.

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. May cause an allergic skin reaction. If symptoms persist, call a

physician.

Ingestion Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious

person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Get immediate medical advice/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. Use personal protective equipment as required. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not breathe

vapor or mist. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms Itching. Rashes. Hives. Difficulty in breathing. Coughing and/ or wheezing. Dizziness.

Prolonged contact may cause redness and irritation.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically. 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 Dry chemical, CO2, water spray or regular foam.

Unsuitable extinguishing media Straight streams of water.

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. Product is or contains a sensitizer. May cause

sensitization by skin contact.

Hazardous combustion products Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

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. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not breathe vapor

or mist.

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

hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of

insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Handle

product only in closed system or provide appropriate exhaust ventilation.

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. Keep out of the reach of children. Store locked up. 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	-

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, 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. Long sleeved clothing.

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 clothing should not

be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not breathe vapor or mist. Remove and wash contaminated clothing and gloves, including

the inside, before re-use.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state Liquid Color Light yellow Aromatic Odor

No data available **Odor threshold**

Property Values Remarks • Method

7.188

Melting point / freezing point No data available No data available Boiling point / boiling range

Flash point 66 °C / 150.8 °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 0.9677

Water solubility No data available Solubility(ies) No data available No data available **Partition coefficient** No data available **Autoignition temperature Decomposition temperature** No data available

No data available Kinematic viscosity

Dynamic viscosity 3.89 cP @ 20°C

2.45 cP @ 40°C

Other information

No information available **Explosive properties Oxidizing properties** No information available Softening point No information available No information available Molecular weight No information available **VOC Content (%) 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 Heat, flames and sparks.

Incompatible materials Strong acids. Strong oxidizing agents.

Hazardous decomposition products None known based on information supplied.

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. Toxic by inhalation. (based on components).

Eye contact Specific test data for the substance or mixture is not available. May cause irritation.

Skin contact Specific test data for the substance or mixture is not available. May cause sensitization by

skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Repeated exposure may cause skin dryness or cracking. May be absorbed through the skin in harmful amounts. Causes mild skin

irritation. Harmful in contact with skin.

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. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives. Difficulty in breathing. Coughing and/ or wheezing. Dizziness.

Prolonged contact may cause redness and irritation.

Acute toxicity

Numerical measures of toxicity

No information available

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

ATEmix (oral) 185.00 mg/kg
ATEmix (dermal) 1,509.20 mg/kg
ATEmix (inhalation-dust/mist) 0.518 mg/l

Unknown acute toxicity

5.5232 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 5.5232 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

73.7124 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Solvent Naphtha (Petrole	eum), > 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 590 mg/m³ (Rat) 4 h
Heavy Aromatic			
64742-94-5			
Bifenthrin	= 47 mg/kg (Rat)	= 790 mg/kg (Rat)	= 1010 mg/m ³ (Rat) 4 h
82657-04-3			
Naphthalene	= 1110 mg/kg (Rat)	= 1120 mg/kg (Rabbit)	> 0.4 mg/L (Rat) 4 h
91-20-3			

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

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization Classification based on data available for ingredients. May cause sensitization by skin

contact.

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
Ī	Bifenthrin	-	Group 2A	-	X
1	82657-04-3		·		
Ī	Naphthalene	A3	Group 2B	Reasonably	Х
	91-20-3		·	Anticipated	

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 2A - Probably Carcinogenic to Humans 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 Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard May be fatal if swallowed and enters airways.

Other adverse effects

No information available.

Interactive effects

No information available.

12. Ecological information

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
Solvent Naphtha (Petroleum),	-	LC50: =1740mg/L (96h,	-	EC50: =0.95mg/L (48h,
Heavy Aromatic		Lepomis macrochirus)		Daphnia magna)
64742-94-5		LC50: =19mg/L (96h,		
		Pimephales promelas)		
		LC50: =2.34mg/L (96h,		
		Oncorhynchus mykiss)		
		LC50: =41mg/L (96h,		
		Pimephales promelas)		
		LC50: =45mg/L (96h,		
		Pimephales promelas)		
Bifenthrin	-	LC50: 0.0001 -	-	EC50: 0.00135 -
82657-04-3		0.00019mg/L (96h,		0.00195mg/L (48h,
		Oncorhynchus mykiss)		Daphnia magna)
	LC50: 0.0003 -			
	0.00038mg/L (96h,			
		Lepomis macrochirus)		
Naphthalene	-	LC50: 0.91 - 2.82mg/L	-	EC50: 1.09 - 3.4mg/L
91-20-3		(96h, Oncorhynchus		(48h, Daphnia magna)
		mykiss)		EC50: =1.96mg/L (48h,
		LC50: 5.74 - 6.44mg/L		Daphnia magna)
		(96h, Pimephales		LC50: =2.16mg/L (48h,
		promelas)		Daphnia magna)

LC50: =1.6mg/L (96h,	
Oncorhynchus mykiss)	
LC50: =1.99mg/L (96h,	
Pimephales promelas)	
LC50: =31.0265mg/L	
(96h, Lepomis	
macrochirus)	

Persistence and degradability

No information available.

Bioaccumulation

Component Information

Chemical name	Partition coefficient	
Solvent Naphtha (Petroleum), Heavy Aromatic 64742-94-5	Partition coefficient 6.1 3.6	
Naphthalene 91-20-3	3.6	

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused

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

products

UN/ID no UN3352

Proper shipping name PYRETHROID PESTICIDE, LIQUID, TOXIC

Hazard class 6.1
Packing group

Reportable Quantity (RQ) (Naphthalene: RQ (kg)= 45.40) Naphthalene: RQ (lb)= 100.00

Reportable quantity kg Naphthalene: RQ (kg)= 18980.00

(calculated)

Reportable quantity lbs. Naphthalene: RQ (lb)= 41806.00

(calculated)

Special Provisions IB3, T7, TP2, TP28

DOT Marine Pollutant

Marine pollutant Bifenthrin, Naphthalene

Description UN3352, PYRETHROID PESTICIDE, LIQUID, TOXIC, 6.1, III, Marine pollutant (Bifenthrin,

Naphthalene)

Emergency Response Guide

Number

151

IATA

UN number UN3352

UN proper shipping name Pyrethroid pesticide, liquid, toxic

Transport hazard class(es) 6.1
Packing group

IATA Technical Name Solvent Naphtha (Petroleum), Heavy Aromatic, Bifenthrin

Special Provisions A3, A4

Description UN3352, Pyrethroid pesticide, liquid, toxic (Solvent Naphtha (Petroleum), Heavy Aromatic,

Bifenthrin), 6.1, III

ERG Code 6L

IMDG

UN number UN3352

UN proper shipping name PYRETHROID PESTICIDE, LIQUID, TOXIC

Transport hazard class(es) 6.1
Packing group III
EmS-No F-A, S-A
Marine pollutant P

Marine pollutantBifenthrinSpecial Provisions61, 223, 274

Description UN3352, PYRETHROID PESTICIDE, LIQUID, TOXIC (Solvent Naphtha (Petroleum),

Heavy Aromatic, Bifenthrin, Bifenthrin), 6.1, 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 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 %
Bifenthrin - 82657-04-3	1.0
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	X	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	Reportable Quantity (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
Bifenthrin 82657-04-3	X	-	-
1-Hexanol 111-27-3	X	-	Х
Propylene glycol 57-55-6	X	-	Х
Naphthalene 91-20-3	X	X	Х

U.S. EPA Label Information

EPA Pesticide Registration Number 94730-8

16. Other information

NFPAHealth hazards2Flammability2Instability0Special hazards-HMISHealth hazards2*Flammability2Physical hazards0Personal protectionX

Chronic Hazard Star Legend *= Chronic Health Hazard

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