Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 05/27/2021

SECTION 1: Identification

Identification

Product form : Mixture Trade name : AVENGER MAX : 89168-85-89391 Product code

Recommended use and restrictions on use 1.2.

1.3. **Supplier**

Manufacturer

INNVICTIS® CROP CARE, LLC 1880 Fall River Drive, Suite 100 Loveland, CO 80538 T 855-466-8428

Emergency telephone number 1.4.

Emergency number : ChemTrec 1-800-424-9300

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

GHS-US classification

H300 Fatal if swallowed. Acute toxicity (oral), Category 2 Acute toxicity (inhalation:dust,mist) Category 4 H332 Harmful if inhaled.

Skin sensitisation, Category 1 H317 May cause an allergic skin reaction. Carcinogenicity, Category 2 H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure. Specific target organ toxicity — Repeated exposure, Category 1

Full text of H statements: see section 16

GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US)







Signal word (GHS US) : Danger

Hazard statements (GHS US) : H300 - Fatal if swallowed.

H317 - May cause an allergic skin reaction.

H332 - Harmful if inhaled.

H351 - Suspected of causing cancer.

H372 - Causes damage to organs through prolonged or repeated exposure.

: P201 - Obtain special instructions before use. Precautionary statements (GHS US)

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area.

P272 - Contaminated work clothing must not be allowed out of the workplace P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 - If swallowed: Immediately call a poison center/doctor/...

P302+P352 - If on skin: Wash with plenty of water/...

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing

P308+P313 - If exposed or concerned: Get medical attention P312 - Call a poison center/doctor/... if you feel unwell P314 - Get medical advice/attention if you feel unwell.

P321 - Specific treatment (see supplemental first aid instruction on this label)

P330 - Rinse mouth.

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P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P363 - Wash contaminated clothing before reuse.

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

Other hazards which do not result in classification

No additional information available

Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

Substances

Not applicable

3.2. **Mixtures**

Name	Product identifier	%	GHS-US classification
Bifenthrin Technical	(CAS-No.) 82657-04-3	21.65	Acute Tox. 2 (Oral), H300 Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Sens. 1, H317 Carc. 2, H351 STOT RE 1, H372
imidacloprid	(CAS-No.) 138261-41-3	10.8	Acute Tox. 4 (Oral), H302

Full text of hazard classes and H-statements: see section 16

SECTION 4: First-aid measures

Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a

doctor if you feel unwell.

: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: First-aid measures after skin contact

Get medical advice/attention.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Rinse mouth. Call a physician immediately.

Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : May cause an allergic skin reaction.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Specific hazards arising from the chemical **5.2.**

Hazardous decomposition products in case of : Toxic fumes may be released.

fire

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing

apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

: Do not breathe dust/fume/gas/mist/vapours/spray. Only qualified personnel equipped with **Emergency procedures**

suitable protective equipment may intervene.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public

waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been

read and understood. Wear personal protective equipment. Do not breathe

dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid contact

with skin and eyes

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated

clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands

after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

AVENGER MAX

No additional information available

Bifenthrin Technical (82657-04-3)

No additional information available

imidacloprid (138261-41-3)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



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Flammability (solid, gas)

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : White
Odour : Bitter taste
Odour threshold : No data available

pH : ≈ 6

Melting point : Not applicable
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Relative evaporation rate (butylacetate=1) : No data available

: > 230 °F

: No data available

Not applicable. Vapour pressure : No data available Relative vapour density at 20 °C : No data available Relative density : No data available Density : ≈ 1.1 g/cm³ Solubility No data available Partition coefficient n-octanol/water (Log Pow) : No data available Auto-ignition temperature : No data available No data available Decomposition temperature Viscosity, kinematic : No data available : No data available Viscosity, dynamic Explosive limits No data available Explosive properties : No data available

9.2. Other information

Oxidising properties

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Fatal if swallowed.

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Harmful if inhaled.

ATE US (oral)	22.955 mg/kg bodyweight
ATE US (dust,mist)	3.695 mg/l/4h

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imidacloprid (138261-41-3)	
LD50 oral rat	410 mg/kg (Rat, Literature study, Oral)
LD50 dermal rat	> 5000 mg/kg (Rat, Literature study, Dermal)
LC50 inhalation rat (mg/l)	> 5.3 mg/l (4 h, Rat, Literature study, Inhalation)
Skin corrosion/irritation	: Not classified
	pH: ≈ 6
Serious eye damage/irritation	: Not classified
	pH: ≈ 6
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure.

Bifenthrin Technical (82657-04-3)		
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.	
·		

Aspiration hazard : Not classified
Viscosity, kinematic : No data available

Symptoms/effects after skin contact : May cause an allergic skin reaction.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse

effects in the environment.

imidacloprid (138261-41-3)		
LC50 fish 1	211 mg/l (96 h, Salmo gairdneri)	
EC50 Daphnia 1	0.055 mg/l (48 h, Hyalella azteca)	

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

imidacloprid (138261-41-3)			
BCF other aquatic organisms 1	3.2 (Calculated value)		
Partition coefficient n-octanol/water (Log Pow)	0.57 (Estimated value)		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).		

12.4. Mobility in soil

imidacloprid (138261-41-3)	
Ecology - soil	Low potential for adsorption in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

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SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN3352 Pyrethroid pesticide, liquid toxic (CONTAINS BIFENTHRIN), 6.1, III

UN-No.(DOT) : UN3352

: Pyrethroid pesticide, liquid toxic Proper Shipping Name (DOT)

(CONTAINS BIFENTHRIN)

Class (DOT) : 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132

: 241

Packing group (DOT) : III - Minor Danger Hazard labels (DOT) : 6.1 - Poison



DOT Packaging Non Bulk (49 CFR 173.xxx) DOT Packaging Bulk (49 CFR 173.xxx)

DOT Special Provisions (49 CFR 172.102)

: IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) : 153 DOT Quantity Limitations Passenger aircraft/rail : 60L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 220L

CFR 175.75)

DOT Vessel Stowage Location

: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel.

Transport/Additional information : 40 - Stow "clear of living quarters"

Emergency Response Guide (ERG) Number

Other information

: No supplementary information available.

Transportation of Dangerous Goods

: UN3352 PYRETHROID PESTICIDE, LIQUID, TOXIC (CONTAINS BIFENTHRIN), 6.1, III Transport document description

UN-No. (TDG) : UN3352

Proper Shipping Name (Transportation of

: PYRETHROID PESTICIDE, LIQUID, TOXIC

Dangerous Goods) TDG Primary Hazard Classes

: 6.1 - Class 6.1 - Toxic Substances

Packing group : III - Minor Danger

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TDG Special Provisions

: 16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A) of Part 3 (Documentation). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4 (Dangerous Goods Safety Marks). (2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name: (a)UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S; (b)UN1851, MEDICINE, LIQUID, TOXIC, N.O.S; (c)UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S; (d)UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or (e)UN3249, MEDICINE, SOLID, TOXIC, N.O.S. An example in Canada is the "Food and Drugs Act". (3) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a small means of containment: (a)UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or (b)UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS. SOR/2014-306

Explosive Limit and Limited Quantity Index : 5 L
Passenger Carrying Road Vehicle or Passenger : 60 L

Carrying Railway Vehicle Index

Transport by sea

Transport document description (IMDG) : UN 3352 PYRETHROID PESTICIDE, LIQUID, TOXIC ((CONTAINS BIFENTHRIN)), 6.1, I

UN-No. (IMDG) : 3352

Proper Shipping Name (IMDG) : PYRETHROID PESTICIDE, LIQUID, TOXIC

Class (IMDG) : 6.1 - Toxic substances

Packing group (IMDG) : I - substances presenting high danger

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Difenthrin Technical

Bifenthrin Technical

AVENGE	R MAX					

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

Bilentinin Technical	CAS-NO. 82837-04-3	21.05%	
imidacloprid	CAS-No. 138261-41-3	10.8%	
Contains chemical(s) subject to TSCA 12b export notification if product is shipped outside the U.S			

CAC No. 000E7 04.0

CAS-No. 82657-04-3

21.65%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Bifenthrin Technical		CAS-No. 82657-04-3	21.65%
FIFRA Labelling			
EPA Registration Number	89168-85-89391		
This chamical is a posticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under			

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.

FIFRA Signal Word	Warning
FIFRA Precautionary Statement	Keep out of reach of children. Call a doctor if you feel unwell.
FIFRA Human Health Hazards	May be fatal if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Avoid breathing spray mist. Avoid contact with skin, eyes or clothing. 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.

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FIFRA Labelling					
FIFRA First Aid	If SWALLOWED • Call a poison control center or doctor immediately for treatment advice. • DO NOT induce vomiting unless told to do so by a poison control center or doctor. • DO NOT give any liquids to the person.				
	 IF INHALED Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice. DO NOT give anything by mouth to an unconscious person. 				
	IF ON SKIN OR CLOTHING • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.				
	Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 or your poison control center at 1-800-222-1222. NOTE TO PHYSICIAN: This product contains a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.				
FIFRA Environmental Hazards	This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. DO NOT apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT make applications when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. DO NOT contaminate water when disposing of equipment washwaters. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops/plants or weeds. DO NOT apply this product or allow it to drift to blooming crops/plants or weeds while bees are foraging in or adjacent to the treatment area. The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county, contact the local extension service for procedures and precautions to use to protect endangered species. The chemical imidacloprid demonstrates the properties and characteristics associated with				
5.2 International regulations	chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.				

15.2. International regulations

CANADA

Bifenthrin Technical (82657-04-3)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

imidacloprid (138261-41-3)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Bifenthrin Technical(82657-04-3)	U.S New Jersey - Right to Know Hazardous Substance List

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SECTION 16: Other information

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Full text of H-statements:

H300	Fatal if swallowed.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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