

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : NIRVANA RTU INSECTICIDE  
Product code : 91234-177-89391

#### 1.2. Recommended use and restrictions on use

#### 1.3. Supplier

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

#### 1.4. Emergency telephone number

Emergency number : ChemTrec 1-800-424-9300

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Acute toxicity (oral), Category 3	H301 Toxic if swallowed.
Carcinogenicity, Category 2	H351 Suspected of causing cancer.
Specific target organ toxicity — Single exposure, Category 1	H370 Causes damage to organs.
Specific target organ toxicity — Repeated exposure, Category 1	H372 Causes damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400 Very toxic to aquatic life.
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410 Very toxic to aquatic life with long lasting effects.

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) :

- H301 - Toxic if swallowed.
- H351 - Suspected of causing cancer.
- H370 - Causes damage to organs.
- H372 - Causes damage to organs through prolonged or repeated exposure.
- H400 - Very toxic to aquatic life.
- H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (GHS US) :

- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P260 - Do not breathe 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.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P310 - If swallowed: Immediately call a poison center/doctor/...
- P307+P311 - If exposed: Call a poison center/doctor
- P308+P313 - If exposed or concerned: Get medical attention
- P314 - Get medical advice/attention if you feel unwell.
- P321 - Specific treatment (see supplemental first aid instruction on this label)
- P330 - Rinse mouth.
- P391 - Collect spillage.
- P405 - Store locked up.

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

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
bifenthrin	(CAS-No.) 82657-04-3	17.15	Acute Tox. 2 (Oral), H300 Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Sens. 1B, H317 Carc. 2, H351 STOT RE 1, H372

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

## SECTION 4: First-aid measures

### 4.1. 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.
- First-aid measures after skin contact : Wash skin with plenty of water.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Rinse mouth. Call a physician immediately.

### 4.2. Most important symptoms and effects (acute and delayed)

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

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

### 5.2. Specific hazards arising from the chemical

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

### 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

- Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray.

#### 6.1.2. 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".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

- For containment : Collect spillage.

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- |                         |   |
|-------------------------|---|
| 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 | : Ensure good ventilation of the work station. 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. |
| Hygiene measures              | : 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

<b>NIRVANA RTU INSECTICIDE</b>
No additional information available
<b>bifenthrin (82657-04-3)</b>
No additional information available
<b>1,2-propanediol (57-55-6)</b>
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 insufficient ventilation, wear suitable respiratory equipment

#### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

- |                |   |
|----------------|---|
| Physical state | : Liquid  |
| Appearance     | : Cloudy off-white liquid.  |
| Colour         | : Mixture contains one or more component(s) which have the following colour(s):<br>Beige Colourless |

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Odour	: characteristic
Odour threshold	: No data available
pH	: 6.1
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
Flammability (solid, gas)	: Not applicable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 8.75 g/ml
Density	: 1.05 g/ml
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

### 9.2. Other information

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)	: Toxic if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

NIRVANA RTU INSECTICIDE	
LD50 oral rat	175 mg/kg
LD50 dermal rabbit	5000 mg/kg
LC50 inhalation rat (mg/l)	2.28 mg/l/4h
ATE US (oral)	100 mg/kg bodyweight
bifenthrin (82657-04-3)	
LD50 dermal rat	> 2000 mg/kg bodyweight (Other, Rat, Experimental value, Dermal)

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<b>bifenthrin (82657-04-3)</b>	
LC50 inhalation rat (mg/l)	0.8 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Female, Experimental value, Inhalation (dust))
<b>1,2-propanediol (57-55-6)</b>	
LD50 oral rat	20000 mg/kg (Rat; Experimental value)
LD50 dermal rat	22500 mg/kg (Rat; Experimental value)
LD50 dermal rabbit	20800 mg/kg (Rabbit; Experimental value)
Skin corrosion/irritation	: Not classified pH: 6.1
Serious eye damage/irritation	: Not classified pH: 6.1
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.
Reproductive toxicity	: Not classified
STOT-single exposure	: Causes damage to organs.
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure.
<b>bifenthrin (82657-04-3)</b>	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

<b>bifenthrin (82657-04-3)</b>	
LC50 fish 1	0.1 µg/l (EPA method, Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Flow-through system, Experimental value, Lethal)
EC50 Daphnia 1	0.11 µg/l (EPA OPP 72-2, 48 h, Daphnia magna, Flow-through system, Experimental value, Lethal)
<b>1,2-propanediol (57-55-6)</b>	
LC50 fish 1	51400 mg/l (96 h; Pimephales promelas)
LC50 other aquatic organisms 1	> 1000 mg/l (96 h)
EC50 Daphnia 1	34400 mg/l (48 h; Daphnia magna)
LC50 fish 2	51600 mg/l (96 h; Oncorhynchus mykiss)
TLM fish 1	> 1000 ppm (96 h; Pisces)
TLM other aquatic organisms 1	> 1000 ppm (96 h)
Threshold limit other aquatic organisms 1	> 1000 mg/l (96 h)
Threshold limit algae 1	15000 mg/l (336 h; Selenastrum capricornutum)
Threshold limit algae 2	< 5300 mg/l (336 h; Skeletonema costatum)

### 12.2. Persistence and degradability

<b>bifenthrin (82657-04-3)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>1,2-propanediol (57-55-6)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Not established.
Biochemical oxygen demand (BOD)	0.96 – 1.08 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.63 g O <sub>2</sub> /g substance
ThOD	1.69 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.57 % ThOD

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### 12.3. Bioaccumulative potential

bifenthrin (82657-04-3)	
Partition coefficient n-octanol/water (Log Pow)	> 6
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).
1,2-propanediol (57-55-6)	
Partition coefficient n-octanol/water (Log Pow)	-1.41 – -0.3
Bioaccumulative potential	Not bioaccumulative. Not established.

### 12.4. Mobility in soil

bifenthrin (82657-04-3)	
Ecology - soil	Low potential for mobility in soil.
1,2-propanediol (57-55-6)	
Surface tension	0.036 N/m (25 °C)

### 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.

## 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  
Proper Shipping Name (DOT) : Pyrethroid pesticide, liquid toxic  
(CONTAINS BIFENTHRIN)  
Class (DOT) : 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132  
Packing group (DOT) : III - Minor Danger  
Hazard labels (DOT) : 6.1 - Poison



Dangerous for the environment : Yes  
Marine pollutant : Yes



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203  
DOT Packaging Bulk (49 CFR 173.xxx) : 241

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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 (49 CFR 173.27)	: 60L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 220L
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	: 151
Other information	: No supplementary information available.

### Transportation of Dangerous Goods

Not applicable

### Transport by sea

Transport document description (IMDG)	: UN 3352 PYRETHROID PESTICIDE, LIQUID, TOXIC ((CONTAINS BIFENTHRIN)), 6.1, III
UN-No. (IMDG)	: 3352
Proper Shipping Name (IMDG)	: PYRETHROID PESTICIDE, LIQUID, TOXIC
Class (IMDG)	: 6.1 - Toxic substances
Packing group (IMDG)	: III - substances presenting low danger
Marine pollutant	: Yes



### Air transport

Transport document description (IATA)	: UN 3352 PYRETHROID PESTICIDE, LIQUID, TOXIC ((CONTAINS BIFENTHRIN)), 6.1, III
UN-No. (IATA)	: 3352
Proper Shipping Name (IATA)	: PYRETHROID PESTICIDE, LIQUID, TOXIC
Class (IATA)	: 6.1 - Toxic substances
Packing group (IATA)	: III - substances presenting low danger
Marine pollutant	: Yes



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### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### NIRVANA RTU INSECTICIDE

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:

bifenthrin	CAS-No. 82657-04-3	17.15%
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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	CAS-No. 82657-04-3	17.15%
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##### FIFRA Labelling

EPA Registration Number	91234-177-89391
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	<b>Warning</b>
FIFRA Precautionary Statement	Call a doctor if you feel unwell. Keep out of reach of children.
FIFRA Human Health Hazards	May be fatal if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
FIFRA First Aid	If Swallowed: •Call a poison control center or doctor immediately for treatment advice. •Have person sip a glass of water if able to swallow. •DO NOT induce vomiting unless told to do so by the poison control center or doctor. •DO NOT give anything by mouth to an unconscious person. If in eyes: •Hold eye open and rinse slowly and gently with water for 15-20 minutes. •Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. •Call a poison control center or doctor for treatment advice. HOTLINE NUMBER Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact CHEMTREC at 1-800-424-9300 for emergency medical treatment information. NOTE TO PHYSICIAN - This product is 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 or weeds. DO NOT apply this product or allow it to drift to blooming crops or weeds while bees are foraging 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.
FIFRA Physical Hazard	DO NOT mix or allow coming in contact with oxidizing agent. Hazardous Chemical reaction may occur.

#### 15.2. International regulations

##### CANADA

##### bifenthrin (82657-04-3)

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

##### 1,2-propanediol (57-55-6)

Listed on the Canadian DSL (Domestic Substances List)

##### EU-Regulations

No additional information available



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### National regulations

#### NIRVANA RTU INSECTICIDE

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use. PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION: Causes moderate eye irritation. Harmful if inhaled. Avoid contact with eyes or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Prolonged or frequent repeated skin contact while handling the material may cause allergic reaction in some individuals.

### 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(82657-04-3)	U.S. - New Jersey - Right to Know Hazardous Substance List
1,2-propanediol(57-55-6)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

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Full text of H-statements:

H300	Fatal if swallowed.
H301	Toxic if swallowed.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H351	Suspected of causing cancer.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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.*