

1 Identification

· **Product identifier**

· **Trade name:** ENVIDOR® 2 SC MITICIDE

EPA Registration no.: 10163-383

· **CAS Number:**

Active Ingredient: Spirodiclofen (22.3%), CAS:148477-71-8

ENVIDOR 2 SC MITICIDE contains 2 pounds of Spirodiclofen per US gallon, or 240 grams per liter.

· **Application of the substance / the mixture** Agricultural Miticide

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Gowan Company

P.O. Box 5569

Yuma, Arizona 85366-5569

(928) 783-8844

· **Information department:** sds@gowanco.com

· **Emergency telephone number:**

Chemtrec® Emergency Telephone 24 - Hours: (Spills, leak or fire) Inside U.S. & Canada: (800) 424-9300

Outside the U.S. & Canada: +011 (703) 527-3887

For medical emergency (ProPharma Group®): (888) 478-0798

2 Hazard(s) identification

· **Classification of the substance or mixture**



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Sens. 1 H317 May cause an allergic skin reaction.

· **Label elements**

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard-determining components of labeling:**

Spirodiclofen

· **Hazard statements**

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

· **Precautionary statements**

P201 Obtain special instructions before use.

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

P260 Do not breathe mist/vapors/spray.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 If on skin: Wash with plenty of soap and water.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2021

Reviewed on 07/30/2021

Trade name: ENVIDOR® 2 SC MITICIDE
EPA Registration no.: 10163-383

(Contd. of page 1)

P308+P313 *IF exposed or concerned: Get medical advice/attention.*

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 in accordance with local/regional/national/international regulations.*

· **Hazard description:**

Harmful if swallowed or absorbed through skin. Do not get in eyes, on skin or on clothing. Prolonged or frequent repeated skin contact may cause allergic reactions in some individuals. To reduce exposure, wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Removing and washing contaminated clothing before reuse may reduce exposure.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 0

HAZARD INDEX:

4 Severe Hazard

3 Serious Hazard

2 Moderate Hazard

1 Slight Hazard

0 Minimal Hazard

· **Other hazards**

· PBT: Not applicable.

· vPvB: Not applicable.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable in US.

· **vPvB:** Not applicable in US.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 148477-71-8	Spirodiclofen	⚠	Skin Sens. 1, H317; Aquatic Chronic 4, H413	22.3%
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· **Additional information:**

ENVIDOR 2 SC MITICIDE contains 2 pounds of Spirodiclofen per US gallon, or 240 grams per liter.

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

You may also contact 1-888-478-0798 for emergency medical treatment information.

· **After skin contact:**

• Take off contaminated clothing.

• Rinse skin immediately with plenty of water for 15-20 minutes.

• Call a poison control center or doctor for treatment advice.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2021

Reviewed on 07/30/2021

Trade name: ENVIDOR® 2 SC MITICIDE
EPA Registration no.: 10163-383

(Contd. of page 2)

- **After swallowing:**
 - Call a poison control center or doctor immediately for treatment advice.
 - Have affected person sip a glass of water if able to swallow.
 - Do not induce vomiting unless told by a poison control center or doctor.
 - Do not give anything by mouth to an unconscious person.
- **Information for doctor:**
 - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
 - **Indication of any immediate medical attention and special treatment needed**
No specific antidote is available. Treat patient symptomatically.

5 Fire-fighting measures

- **Extinguishing media**
 - **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
 - **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
Hydrogen chloride (HCl)
Carbon monoxide (CO)
- **Advice for firefighters**
Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.
 - **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Mount respiratory protective device.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:
None of the ingredients are listed.
· PAC-2:
None of the ingredients are listed.
· PAC-3:
None of the ingredients are listed.

US

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2021

Reviewed on 07/30/2021

Trade name: ENVIDOR® 2 SC MITICIDE
EPA Registration no.: 10163-383

(Contd. of page 3)

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling**
Wash hands after each use.
Remove and wash contaminated clothing before reuse.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
 - **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:** Store in a cool, dry, well-ventilated area.
 - **Information about storage in one common storage facility:**
Do not ship or store near food, feed, seed and fertilizers.
 - **Further information about storage conditions:**
Protect from freezing.
Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
 - **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
 - **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
 - **Personal protective equipment:**
 - **General protective and hygienic measures:**
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
 - **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
 - **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves** Chemical-resistant gloves.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2021

Reviewed on 07/30/2021

Trade name: ENVIDOR® 2 SC MITICIDE
EPA Registration no.: 10163-383

(Contd. of page 4)

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Safety glasses

- **Body protection:**

Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Chemical resistant gloves
- Shoes plus socks

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

- **Form:** Suspension
- **Color:** White-beige
- **Odor:** Slight
- **Odor threshold:** Not determined.

- **pH-value at 20 °C (68 °F):** 4-6

- **Change in condition**

- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** Undetermined.

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not applicable.

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not self-igniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

- **Lower:** Not determined.
- **Upper:** Not determined.

- **Vapor pressure:** Not determined.

- **Density at 20 °C (68 °F):** 1.09 g/cm³ (9.09605 lbs/gal)

- **Relative density** Not determined.
- **Vapor density** Not determined.
- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with**

- **Water:** Dispersible.

- **Partition coefficient (n-octanol/water):** Not determined.

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2021

Reviewed on 07/30/2021

Trade name: ENVIDOR® 2 SC MITICIDE
EPA Registration no.: 10163-383

(Contd. of page 5)

- | | |
|----------------------------|--|
| · Viscosity: | |
| · Dynamic: | Not determined. |
| · Kinematic: | Not determined. |
| · Solvent content: | |
| · VOC content: | 0.00 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
 - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Extremes of temperature and direct sunlight.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>4,000 mg/kg (rat)
Inhalative	LC50/4 h	>3.146 mg/l (rat)

· Primary irritant effect:

- **on the skin:** May be irritating to the skin
- **on the eye:** Not an irritant
- **Sensitization:** Sensitization possible through skin contact.

· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:
 Irritant

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

· NTP (National Toxicology Program)

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed.

US

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2021

Reviewed on 07/30/2021

Trade name: ENVIDOR® 2 SC MITICIDE
EPA Registration no.: 10163-383

(Contd. of page 6)

12 Ecological information

- **Aquatic toxicity**

LC50 (Oncorhynchus mykiss (rainbow trout)) > 0.035 mg/l

Exposure time: 96 h

The value mentioned relates to the active ingredient spirodiclofen. No acute toxicity was observed at its limit of water solubility.

Oncorhynchus mykiss (rainbow trout) Early-life Stage NOEC: 0.00195 mg/l

Exposure time: 97 d

The value mentioned relates to the active ingredient spirodiclofen.

EC50 (Daphnia magna (Water flea)) > 0.045 mg/l

Exposure time: 48 h

The value mentioned relates to the active ingredient spirodiclofen. No acute toxicity was observed at its limit of water solubility.

IC50 (Raphidocelis subcapitata (freshwater green alga)) > 0.06 mg/l Growth rate;

Exposure time: 72 h

The value mentioned relates to the active ingredient spirodiclofen. No acute toxicity was observed at its limit of water solubility.

This pesticide is toxic to fish and aquatic invertebrates. Avoid contamination of surface water through spray drift. Do not contaminate water when disposing of equipment wash water or rinsate. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark.

- **Persistence and degradability**

Spirodiclofen: Not rapidly biodegradable

Spirodiclofen: Koc: 31097

- **Behavior in environmental systems:**

- **Bioaccumulative potential** Spirodiclofen: Bioconcentration factor (BCF) 491 Does not bioaccumulate.

- **Mobility in soil** Spirodiclofen: Immobile in soil

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

- **Uncleaned packagings:**

- **Recommendation:**

CONTAINER DISPOSAL

Rigid, Non-refillable containers (equal to or less than 5 gallons)

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2021

Reviewed on 07/30/2021

Trade name: ENVIDOR® 2 SC MITICIDE
EPA Registration no.: 10163-383

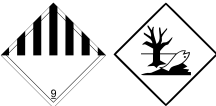
(Contd. of page 7)

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill.
Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT, ADR · IMDG, IATA 	<p style="margin: 0;">Void</p> <p style="margin: 0;">UN3082</p>
<ul style="list-style-type: none"> · UN proper shipping name · DOT, ADR · IMDG · IATA 	<p style="margin: 0;">Void</p> <p style="margin: 0;">ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT</p> <p style="margin: 0;">ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.</p>
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT, ADR, ADN · Class 	<p style="margin: 0;">Void</p>
<ul style="list-style-type: none"> · IMDG, IATA <div style="text-align: center; margin: 10px 0;">  </div> <ul style="list-style-type: none"> · Class · Label 	<p style="margin: 0;">9 Miscellaneous dangerous substances and articles</p> <p style="margin: 0;">9</p>
<ul style="list-style-type: none"> · Packing group · DOT, ADR · IMDG, IATA 	<p style="margin: 0;">Void</p> <p style="margin: 0;">III</p>
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: · Special marking (IATA): 	<p style="margin: 0;">Symbol (fish and tree)</p> <p style="margin: 0;">Symbol (fish and tree)</p>
<ul style="list-style-type: none"> · Special precautions for user · EMS Number: · Stowage Category 	<p style="margin: 0;">Not applicable</p> <p style="margin: 0;">F-A,S-F</p> <p style="margin: 0;">A</p>

(Contd. on page 9)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2021

Reviewed on 07/30/2021

Trade name: ENVIDOR® 2 SC MITICIDE
EPA Registration no.: 10163-383

(Contd. of page 8)

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable
- **Transport/Additional information:**
 - **IMDG**
 - **Limited quantities (LQ)** 5L
 - **Excepted quantities (EQ)** Code: E1
 - Maximum net quantity per inner packaging: 30 ml
 - Maximum net quantity per outer packaging: 1000 ml
- **UN "Model Regulation":** Void

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

EPA /FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency (EPA) 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.

· **SARA Title III**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

None of the ingredients are listed.

· **Hazardous Air Pollutants**

None of the ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

All ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

· **TLV (Threshold Limit Value)**

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2021

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Trade name: ENVIDOR® 2 SC MITICIDE
EPA Registration no.: 10163-383

(Contd. of page 9)

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**

Not applicable

- **Signal word**

(US EPA) CAUTION

- **Hazard-determining components of labeling:**

Spirodiclofen

- **Hazard statements**

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

- **Precautionary statements**

P201 Obtain special instructions before use.

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

P260 Do not breathe mist/vapors/spray.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 If on skin: Wash with plenty of soap and water.

P308+P313 IF exposed or concerned: Get medical advice/attention.

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 in accordance with local/regional/national/international regulations.

- **National regulations:**

- **Additional classification according to Decree on Hazardous Materials:**

Read the label, authorized under the Pest Control Products Act, prior to using or handling the pest control product.

There are Canada-specific environmental requirements for handling, use, and disposal of this pest control product that are indicated on the label.

- **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** *Supply Chain*

- **Contact:** *sds@gowanco.com*

- **Date of preparation / last revision** *07/30/2021 / 5*

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

(Contd. on page 11)

Safety Data Sheet
acc. to OSHA HCS

Printing date 07/30/2021

Reviewed on 07/30/2021

Trade name: ENVIDOR® 2 SC MITICIDE
EPA Registration no.: 10163-383

(Contd. of page 10)

IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute Tox. 4: Acute toxicity – Category 4
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4

*** Data compared to the previous version altered.**

US