

1 Identification

· Product identifier

· Trade name: **PREVISTO® FUNGICIDE/BACTERICIDE**

· Article number: US50307-80629

· CAS Number:

EPA Registration No.: 10163-330

Active Ingredient: Copper hydroxide* (5.0%), CAS:20427-59-2

*Contains Metallic copper equivalent, 3.3%

· Application of the substance / the mixture Agricultural fungicide/bactericide

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Gowan Company, LLC.

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



GHS05 Corrosion

Skin Corrosion 1B

H314 Causes severe skin burns and eye damage.

Eye Damage 1

H318 Causes serious eye damage.



GHS09 Environment

Aquatic Acute 1

H400 Very toxic to aquatic life.

Aquatic Chronic 1

H410 Very toxic to aquatic life with long lasting effects.



GHS07

Acute Toxicity - Oral 4 H302 Harmful if swallowed.

· Label elements

· GHS label elements

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

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/29/2022

Reviewed on 09/29/2022

Trade name: **PREVISTO® FUNGICIDE/BACTERICIDE**

(Contd. of page 1)

· **Hazard pictograms**

GHS05 GHS07 GHS09

· **Signal word** *Danger*· **Hazard-determining components of labeling:***ammonia**Copper hydroxide*· **Hazard statements***H302 Harmful if swallowed.**H314 Causes severe skin burns and eye damage.**H400 Very toxic to aquatic life.**H410 Very toxic to aquatic life with long lasting effects.*· **Precautionary statements***P260 Do not breathe dusts or mists.**P264 Wash 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+P312 If swallowed: Call a poison center/doctor if you feel unwell.**P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.**P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.**P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.**P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P310 Immediately call a poison center/doctor.**P321 Specific treatment (see on this label).**P363 Wash contaminated clothing before reuse.**P391 Collect spillage.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Hazard description:**

Corrosive. Causes skin burns. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wear coveralls worn over long -sleeved shirt and long pants, socks, chemical -resistant footwear, and waterproof gloves. 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. Wear protective eyewear (goggles, face shield, or safety glasses).

· **Classification system:**· **NFPA ratings (scale 0 - 4)***Health = 3**Fire = 0**Reactivity = 0***HAZARD INDEX:***4 Severe Hazard**3 Serious Hazard**2 Moderate**1 Slight Hazard**0 Minimal Hazard*

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/29/2022

Reviewed on 09/29/2022

Trade name: PREVISTO® FUNGICIDE/BACTERICIDE

(Contd. of page 2)

- **Other hazards**
- **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: 1336-21-6 | ammonia ⚠ Skin Corrosion 1B, H314; ⚠ Aquatic Acute 1, H400 | 15.63% |
| CAS: 20427-59-2 | Copper hydroxide ⚠ Acute Toxicity - Inhalation 2, H330; ⚠ Eye Damage 1, H318; ⚠ Aquatic Acute 1, H400; ⚠ Aquatic Chronic 1, H410; ⚠ Acute Toxicity - Oral 4, H302 | 5.0% |

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 inhalation:**
 - 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 poison control center or doctor for further treatment advice.
- **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.
- **After eye contact:**
 - Hold eye open and rinse slowly and gently with water for 15-20 minutes.
 - Remove contact lenses, if present, after first 5 minutes, then continue rinsing eyes.
 - Call a poison control center or doctor for treatment advice.
- **After swallowing:**
 - 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 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**
Probable mucosal damage may contraindicate use of gastric lavage. See label for additional precautions and directions for use.
 - **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

US
(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/29/2022

Reviewed on 09/29/2022

Trade name: **PREVISTO® FUNGICIDE/BACTERICIDE**

(Contd. of page 3)

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.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
 - **Protective equipment:**
Wear self-contained respiratory protective device.
Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
This pesticide is toxic to fish and aquatic invertebrate and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
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:

| | | |
|-----------------|------------------|-----------------------|
| CAS: 1336-21-6 | ammonia | 61 ppm |
| CAS: 631-61-8 | ammonium acetate | 3.8 mg/m ³ |
| CAS: 20427-59-2 | Copper hydroxide | 4.6 mg/m ³ |

· PAC-2:

| | | |
|-----------------|------------------|----------------------|
| CAS: 1336-21-6 | ammonia | 330 ppm |
| CAS: 631-61-8 | ammonium acetate | 42 mg/m ³ |
| CAS: 20427-59-2 | Copper hydroxide | 33 mg/m ³ |

· PAC-3:

| | | |
|-----------------|------------------|-----------------------|
| CAS: 1336-21-6 | ammonia | 2,300 ppm |
| CAS: 631-61-8 | ammonium acetate | 250 mg/m ³ |
| CAS: 20427-59-2 | Copper hydroxide | 200 mg/m ³ |

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling**
Corrosive. Causes skin burns. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wear coveralls worn over long-sleeved shirt and long pants, socks, chemical-resistant

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/29/2022

Reviewed on 09/29/2022

Trade name: PREVISTO® FUNGICIDE/BACTERICIDE

(Contd. of page 4)

footwear, and chemical-resistant gloves. 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. Wear protective eyewear (goggles, face shield, or safety glasses).

- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
 - **Information about storage in one common storage facility:** Store away from foodstuffs.
 - **Further information about storage conditions:** 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:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
 - Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
 - Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
 - Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible wash thoroughly and change clothing.
 - **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

- **Material of gloves** Chemical-resistant made of any waterproof material
- **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:**



Tightly sealed goggles

- **Body protection:**
Handlers must wear:
 - Coveralls worn over long-sleeved shirt and long pants
 - Chemical resistant footwear

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/29/2022

Reviewed on 09/29/2022

Trade name: PREVISTO® FUNGICIDE/BACTERICIDE

(Contd. of page 5)

- Waterproof gloves
- Protective Eyewear (goggles, face shield, safety glasses)

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

- Form: Viscous
- Color: Opaque
- Odor: Ammonia-like
- Odor threshold: Not determined.

· pH-value: Not determined.

· 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): 1.04 g/cm³ (8.6788 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.

· Viscosity:

- Dynamic: Not determined.
- Kinematic: Not determined.

· Other information: No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable under normal conditions
 - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Excessive heat and flame

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/29/2022

Reviewed on 09/29/2022

Trade name: PREVISTO® FUNGICIDE/BACTERICIDE

(Contd. of page 6)

· **Incompatible materials:** Organic peroxide, strong acids or bases

· **Hazardous decomposition products:**

Carbon monoxide (CO)

Nitrogen oxides (NO_x)

Hydrogen fluoride (HF)

Ammonia

Organic compounds on combustion, May generate harmful and irritant gas/fume heating or combustion.

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 | >5,000 mg/kg (rat) |
| Inhalative | LC50/4 h | >2.06 mg/l (rat) |

· **Primary irritant effect:**

· **on the skin:** Corrosive

· **on the eye:** Strong caustic effect.

· **Sensitization:** Not a contact sensitizer

· **Additional toxicological information:**

· **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.

12 Ecological information

· **Toxicity**

This pesticide is toxic to fish and aquatic invertebrate and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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

US

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/29/2022

Reviewed on 09/29/2022

Trade name: **PREVISTO® FUNGICIDE/BACTERICIDE**

(Contd. of page 7)

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Pesticide wastes may be hazardous. 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 Region Office for guidance.

- **Uncleaned packagings:**

- **Recommendation:**

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container 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 ¼ 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning, if burned, stay out of resulting smoke.

14 Transport information

- **UN-Number**

- **DOT, ADR, IMDG, IATA**

UNI760

- **UN proper shipping name**

- **DOT**

Corrosive liquids, n.o.s.

- **ADR**

1760 CORROSIVE LIQUID, N.O.S., ENVIRONMENTALLY HAZARDOUS

- **IMDG**

CORROSIVE LIQUID, N.O.S. (AMMONIA SOLUTION), MARINE POLLUTANT

- **IATA**

CORROSIVE LIQUID, N.O.S.

- **Transport hazard class(es)**

- **DOT**



- **Class**

8 Corrosive substances

- **Label**

8

- **ADR, IMDG**



- **Class**

8 Corrosive substances

(Contd. on page 9)

US

Safety Data Sheet


acc. to OSHA HCS

Printing date 09/29/2022

Reviewed on 09/29/2022

Trade name: **PREVISTO® FUNGICIDE/BACTERICIDE**

(Contd. of page 8)

| | |
|---|--|
| · Label | 8 |
| · IATA | |
|  | |
| · Class | 8 Corrosive substances |
| · Label | 8 |
| · Packing group | |
| · DOT, ADR, IMDG, IATA | III |
| · Environmental hazards: | |
| · Marine pollutant: | Yes Symbol (fish and tree) |
| · Special marking (ADR): | Symbol (fish and tree) |
| · Special precautions for user | Warning: Corrosive substances |
| · EMS Number: | F-A,S-B |
| · Segregation groups | (SGG2) Ammonium compounds |
| · Stowage Category | A |
| · Stowage Code | SW2 Clear of living quarters. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable |
| · Transport/Additional information: | |
| · ADR | |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml |
| · UN "Model Regulation": | UN 1760 CORROSIVE LIQUID, N.O.S. 8, III, ENVIRONMENTALLY HAZARDOUS |

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.

· Marketing authorization number:

· SARA Title III

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

CAS: 1336-21-6 ammonia

CAS: 20427-59-2 Copper hydroxide

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/29/2022

Reviewed on 09/29/2022

Trade name: PREVISTO® FUNGICIDE/BACTERICIDE

(Contd. of page 9)

· **Hazardous Air Pollutants**

None of the ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the 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)**

CAS: 631-61-8 ammonium acetate

D

· **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.

· **GHS label elements**

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

· **Hazard pictograms**

Not applicable

· **Signal word**

(US EPA) DANGER/PELIGRO

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

ammonia

Copper hydroxide

· **Hazard statements**

Corrosive. Causes skin burns. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wear coveralls worn over long -sleeved shirt and long pants, socks, chemical -resistant footwear, and waterproof gloves. 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. Wear protective eyewear (goggles, face shield, or safety glasses).

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P260 Do not breathe dusts or mists.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

(Contd. on page 11)

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/29/2022

Reviewed on 09/29/2022

Trade name: PREVISTO® FUNGICIDE/BACTERICIDE

(Contd. of page 10)

| | |
|----------------|--|
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P301+P312 | If swallowed: Call a poison center/doctor if you feel unwell. |
| P301+P330+P331 | If swallowed: Rinse mouth. Do NOT induce vomiting. |
| P303+P361+P353 | If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P305+P351+P338 | If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a poison center/doctor. |
| P321 | Specific treatment (see on this label). |
| P363 | Wash contaminated clothing before reuse. |
| P391 | Collect spillage. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |

· **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:** Systems Design and Control

· **Contact:** sds@gowanco.com

· **Date of preparation / last revision** 09/29/2022

· **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

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)

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 Toxicity - Oral 4: Acute toxicity – Category 4

Acute Toxicity - Inhalation 2: Acute toxicity – Category 2

Skin Corrosion 1B: Skin corrosion/irritation – Category 1B

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· **Sources** Previsto® is a registered trademark of Gowan Company, L.L.C.