1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier
Product Description: UP-Star Gold Insecticide

Other means of identification
Product code 12U-134
Registration number(s) 70506-24

Recommended use of the chemical and restrictions on use
Recommended use Insecticide.
Uses advised against Activities contrary to label recommendation

Details of the Supplier of the Safety Data Sheet
Supplier Address
UPL NA Inc.
630 Freedom Business Center
Suite 402
King of Prussia, PA 19406

Emergency telephone number
Company Phone Number 1-800-438-6071
Emergency telephone number Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(866) 673-6671 (24hrs)

2. Hazards Identification

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazardous Properties</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute toxicity - Dermal</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Vapors)</td>
<td>Category 4</td>
</tr>
</tbody>
</table>

Label elements

WARNING

Hazard Statements
HARMFUL IF SWALLOWED
Harmful in contact with skin
HARMFUL IF INHALED

Appearance Off-white
Physical state Liquid
Odor Slight
Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Do not get in eyes, on skin, or on clothing
Use only outdoors or in a well-ventilated area

IF ON SKIN: Wash with plenty of soap and water
Call a POISON CENTER or doctor if you feel unwell
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor if you feel unwell
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)

OTHER INFORMATION
- Very toxic to aquatic life with long lasting effects
- Very toxic to aquatic life

3. Composition/information on Ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bifenithrin technical</td>
<td>82657-04-3</td>
<td>7.9</td>
</tr>
</tbody>
</table>

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES

Eye contact
Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin contact
Rinse skin immediately with plenty of water for 15-20 minutes. Remove and wash contaminated clothing before re-use. Call a poison control center or doctor for treatment advice.

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 a physician or poison control center immediately.

Ingestion
Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

Most Important Symptoms and Effects, Both Acute and Delayed

no data available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician
This product contains a pyrethroid. Treatment is symptomatic and supportive.

5. Fire-fighting measures
Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media  
no data available.

Specific hazards arising from the chemical
No information available.

Hazardous combustion products

Explosion data

Protective equipment and precautions for firefighters
Use personal protective equipment. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions
Avoid contact with skin and eyes. Use personal protective equipment. Remove all sources of ignition.

Environmental Precautions

Environmental precautions
Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Methods and material for containment and cleaning up

Methods for Clean-Up
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Handling
Keep out of reach of children. Keep away from heat, sparks and open flame. - No smoking.

Conditions for safe storage, including any incompatibilities

Storage
Keep container tightly closed in a dry and well-ventilated place. Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur. Keep containers tightly closed in a cool, well-ventilated place.

incompatible materials
No materials to be especially mentioned.

8. Exposure Controls/Personal Protection

Exposure guidelines
This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering controls
Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Personal protective equipment

Eye/Face Protection
Where there is potential for eye contact have eye flushing equipment available. Use eye protection to avoid eye contact.

Skin protection
Protective gloves. Lightweight protective clothing.

Respiratory protection
Where airborne exposure is likely, use NIOSH approved respiratory protection equipment.
appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134.

General hygiene considerations
Do not eat, drink or smoke when using this product. Wear suitable gloves and eye/face protection. Wash hands and face before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>VALUES</th>
<th>Remarks/ • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Off-white</td>
<td></td>
</tr>
<tr>
<td>color</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Slight</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>7 °C / 45 °F</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 100°C / &gt;212 F</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability limit in air</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.039 g/ml</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Solubility in Other Solvents</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>OTHER INFORMATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Softening point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>molecular weight</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>VOC Content</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Liquid Density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Bulk density</td>
<td>8.66 lb/gal</td>
<td></td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

Reactivity
no data available

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal processing.

**Conditions to avoid**
Heat, flames and sparks.

**Incompatible materials**
No materials to be especially mentioned.

**Hazardous decomposition products**

### 11. Toxicological Information

#### Information on Likely Routes of Exposure

**Product information**

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inhalation</strong></td>
<td>Harmful by inhalation.</td>
</tr>
<tr>
<td><strong>Eye contact</strong></td>
<td>May cause irritation.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>May be harmful if absorbed through the skin. Skin exposure may result in rash, numbing, burning or tingling sensation which is reversible and usually subsides within 12 hours.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>HARMFUL IF SWALLOWED.</td>
</tr>
</tbody>
</table>

**Component Information**

Bifenthrin products may produce skin sensations such as rashes, numbing, burning or tingling, which are reversible and usually subside in 12 hours.

#### Information on Toxicological Effects

**Symptoms**
No information available.

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

**Sensitization**
No information available.

**Mutagenic effects**
No data available.

**Carcinogenicity**
BIFEN

In studies with laboratory animals, Bifenthrin technical did not cause reproductive toxicity or teratogenicity. Tremors were associated with repeated exposure of laboratory animals to Bifenthrin technical. In lifetime feeding studies conducted with rodents a slight increase in the incidence of urinary bladder tumors at the highest dose in male mice was considered to be an equivocal response, not evidence of a clear compound-related effect. The overall absence of genotoxicity has been demonstrated in mutagenicity tests with Bifenthrin. Chronic exposure to aromatic hydrocarbons may cause headaches, dizziness, loss of sensations or feelings and liver and kidney damage. There is no sufficient evidence to suggest that aromatic hydrocarbons are reproductive toxicants, mutagens or developmental toxicants. Bifenthrin technical- In studies with laboratory animals, bifenthrin did not cause reproductive toxicity or teratogenicity. Tremors were associated with repeated exposure of laboratory animals with Bifenthrin. In lifetime feeding studies conducted with rodents, a slight increase in the incidence of urinary bladder tumors at the highest dose in male mice was considered to be an equivocal response, not evidence of a clear compound-related effect. The overall absence of genotoxicity has been demonstrated in mutagenicity tests with bifenthrin.

**Reproductive effects**
Not Available.

**STOT - Single Exposure**
No data available.

**STOT - Repeated Exposure**
No data available.

**Aspiration hazard**
No information available.

#### Numerical Measures of Toxicity - Product information
LD50 Oral 632 mg/kg (rat)
LD50 Dermal > 2000 mg/kg (rat)
LC50 Inhalation Inhalation LC50 11.58 mg/l (1 hr)

12. Ecological Information

ECOTOXICITY

Bifenthrin: Highly toxic to fish and aquatic arthropods (LC50 values between 0.0038 to 17.8 ug/L. Slightly toxic to water fowl and upland game birds (LD50 between 1800 to >2150 mg/kg)

PERSISTENCE/DEGRADABILITY
no data available.

BIOACCUMULATION/ACCUMULATION
No information available.

OTHER ADVERSE EFFECTS
no data available

13. Disposal Considerations

WASTE TREATMENT METHODS

WASTE DISPOSAL METHOD
Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or 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.

CONTAMINATED PACKAGING
Refer to product label.

14. Transport Information

DOT NOT REGULATED

TDG NOT REGULATED

IATA NOT REGULATED

IMDG NOT REGULATED

15. Regulatory Information

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:

**Signal word**: CAUTION

**Ventilation Control**: PESTICIDE APPLICATORS & WORKERS THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170.

**Harmful if swallowed. Harmful if inhaled or absorbed through skin. Toxic to fish and aquatic invertebrates.**

**International Inventories**

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>USINV</td>
<td>Not present</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Not present</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Not Present</td>
</tr>
<tr>
<td>ENCS</td>
<td>Not Present</td>
</tr>
<tr>
<td>China</td>
<td>Not Present</td>
</tr>
<tr>
<td>KECL</td>
<td>Not Present</td>
</tr>
<tr>
<td>PICCS</td>
<td>Not Present</td>
</tr>
<tr>
<td>AICS</td>
<td>Not Present</td>
</tr>
<tr>
<td>TSCA</td>
<td>Not Present</td>
</tr>
</tbody>
</table>

**Federal Regulations**

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

**CERCLA**
Not applicable

**CERCLA**
SARA Product RQ 0

**RCRA**

**Pesticide Information**

**State Regulations**

**State Right-to-Know**
Not applicable

**International regulations**

**U.S. EPA Label information**

**EPA Pesticide registration number** 70506-24
NFPA  HEALTH  flammability  Instability  Physical hazard

Preparation Date  10-May-2015
Revision date  02-Jan-2019
Revision Summary
Update logo Update section 1 Update Section 16***

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End of SDS