

**SAFETY DATA SHEET
DIRECT AG SOURCE, LLC
BIFEN 2 AG GOLD**

1. IDENTIFICATION

PRODUCT NAME: BIFEN 2 AG GOLD
EPA REGISTRATION NO.: 83222-1
PRODUCT TYPE: Insecticide/Miticide
CHEMICAL NAME OF ACTIVE INGREDIENT(S): **Bifenthrin:** 2 methyl[1,1 –biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl-cyclopropanecarboxylate
COMPANY NAME: **Direct Ag Source, LLC**
30473 260th Street
Eldora, IA 50627
Phone: 1-800-424-9300
**FOR MEDICAL AND CHEMICAL EMERGENCIES,
SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT,
CALL CHEMTREC:**
**FOR EMERGENCY MEDICAL TREATMENT
INFORMATION, CALL NATIONAL POISON
CONTROL CENTER:** Phone: 1-800-222-1222
**FOR PRODUCT INFORMATION, CALL
NATIONAL PESTICIDE INFORMATION CENTER:** Phone: 1-800-858-7378

2. HAZARDS IDENTIFICATIONS

THE FOLLOWING HAZARDS ARE IDENTIFIED ACCORDING TO OSHA HCS CLASSIFICATION (29 CFR 1910.1200). See Section 15 for FIFRA information.

HAZARD CLASSIFICATIONS:

Acute oral toxicity: Category 3
Acute inhalation toxicity: Category 4
Eye Irritation: Category 1
Skin irritation: Category 2

SIGNAL WORD: DANGER

PICTOGRAMS:



HAZARD STATEMENTS:

- Toxic if swallowed. (Category 3)
- Harmful if inhaled. (Category 4)
- Causes serious eye damage (Eye irritation - Category 1)
- Cause skin irritation (Skin irritation – Category 2)
- May cause cancer (Carcinogenicity - Bifenthrin: Category 2 suspected human carcinogen)

PRECAUTIONARY STATEMENTS:

- Wash hand thoroughly after handling. Do not eat, drink or smoke when using this product. If swallowed, immediately call a poison center. Rinse mouth. Stock locked up.

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- Avoid breathing mist or spray. Use only outdoors or in a well-ventilated area. If inhaled, Remove victim to fresh air and keep comfortable for breathing. Call a poison center if you feel unwell.
- Wear eye and face protection. If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or a doctor.
- Wash hand thoroughly after handling. Wear protective gloves. If on skin: wash with plenty of water. If skin irritation occurs: get medical advice or attention. Take off contaminated clothing and wash it before reuse.
- Obtain special instruction before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and clothing, eye and face protection. If exposure or concerned: get medical advice or attention. Store locked up.

Contact Chemtrec for emergency medical treatment at 1- 800-424-9300.

PHYSICAL AND CHEMICAL HAZARDS: Combustible. Do not use or store near heat or open flame.

STORAGE AND DISPOSAL: See Section 7 and 13.

OTHER HAZARDS: See Section 11 and 12.

3. COMPOSITION/INFORMATION ON INGREDIENTS

ACTIVE INGREDIENT	CAS NO.	%
Bifenthrin	82657-04-3	25.1
Aromatic hydrocarbons containing:	64742-94-5	64.5
Naphthalene	91-20-3	
1, 2, 4 – Trimethyl benzeze	95-63-6	

4. FIRST AID MEASURES

FIRST AID

IF SWALLOWED:	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
IF IN EYES:	<ul style="list-style-type: none"> • 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.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • 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.
IF INHALED:	<ul style="list-style-type: none"> • 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.

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 should be avoided. This product contains a petroleum distillate; vomiting may cause aspiration pneumonia.

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

EMERGENCY NUMBERS: Transportation or spill, call CHEMTREC 800-424-9300.

5. FIRE FIGHTING MEASURES

FLASH POINT: 65°C (149°F) **METHOD USED:** Pensky-Martens Closed Cup

FLAMMABLE LIMITS

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LFL: Not available

UFL: Not available

EXTINGUISHING MEDIA: Foam, CO₂, dry chemical

FIRE & EXPLOSION HAZARDS: Moderately combustible. Found not to be explosive.

FIRE-FIGHTING PROCEDURES: Isolate fire area. Do not breathe smoke, gases or vapors generated. Wear self-contained breathing apparatus and full-protective clothing.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: Clean up spills immediately, using precautions described in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Keep material out of lakes, streams, ponds and sewer drains. To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay; if dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Do not allow material to run off into soil, drainage systems, or bodies of water. Notify and consult with proper regulatory authorities.

7. HANDLING AND STORAGE

Do not contaminate water, food, or feed by storage and disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Do not freeze or store in extreme heat. Keep out of reach of children and animals. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store in original containers only. Open dumping is prohibited. Do not store this product near fertilizers, seeds, or other pesticides. Do not freeze. Do not store below 40°F. If crystals are observed, warm material to above 60°F by placing in warm location. Shake or roll container periodically to redissolve solids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL PROTECTIVE MEASURES: Wash thoroughly with soap and water after handling. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

PERSONAL PROTECTIVE EQUIPMENT:

The following recommendations for exposure controls/personal protection are intended for the manufacture, formulation and packaging of the product. For commercial application and on-farm applications, consult the product label.

INGESTION PROTECTION: Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material.

EYE PROTECTION: For splash, mist or spray exposure, wear protective eyewear.

SKIN PROTECTION: To avoid skin contact, wear chemical resistant gloves such as barrier laminate, nitrile rubber, neoprene rubber or Viton, long sleeved shirt, long pants and shoes plus socks. Wash immediately with soap and water after handling and before eating, drinking, or using tobacco.

RESPIRATORY PROTECTION: For splash, mist, or spray exposure wear, as a minimum, a properly fitted half-face or full-face air-purifying respirator, which is approved for pesticides (U.S. NIOSH/MSHA, EU CEN or comparable certification organization). Respirator use and selection must be based on airborne concentrations.

Applicators and all handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber or Viton
- Shoes plus socks

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- Protective eyewear

ENGINEERING CONTROLS: Use local exhaust at all process locations where vapor or mist may be emitted. Ventilate all transport vehicles prior to unloading.

USER SAFETY RECOMMENDATIONS:

Users should:

- 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 clothing immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

EXPOSURE LIMITS:

Chemical Name	CAS NO.	ACGIH/TLV	OSHA/PEL
Bifenthrin	82657-04-3	NE	NA
Aromatic Hydrocarbons	64742-94-5	NE	100 ppm
Naphthalene	91-20-3	10 ppm (TWA) 15 ppm (STEL) (Skin-potential for absorption)	10 ppm (TWA) 15 ppm (STEL) 50 mg/m ³ (TWA) 75 mg/m ³ (STEL)
1,2,4-trimethyl benzene	95-63-6	NE	125 mg/m ³ 25 ppm

NA: Not Established.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Amber liquid

ODOR: Aromatic hydrocarbon

FLASH POINT: 65°C (149°F) (Pensky-Martens Closed Cup)

pH: 5.77

STORAGE STABILITY: 2 years in normal warehouse conditions.

VISCOSITY: 4.415(20°C) & 2.739 (40°C)

MISCIBILITY: Product is miscible in oil

BOILING POINT: N/A

VAPOR PRESSURE: N/A

SOLUBILITY IN WATER: Soluble

BULK DENSITY/SPECIFIC GRAVITY: 0.976 g/ml

OXIDIZING OR REDUCING ACTIVITY: Compatible with water, 10% monoammonium phosphate solution, iron powder and Kerosene. Incompatible with 10% potassium permanganate solution

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal use and storage conditions.

CONDITIONS TO AVOID: Excessive heat and fire.

POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES:

Acute Oral LD50 (Rat): 149.6 mg/kg

Acute Dermal LD50 (Rabbit): > 2,000 mg/kg

Acute Inhalation LC50 (Rat): > 2.06 mg/L (4 hrs.)

Eye Irritation (Rabbit): Severely irritating

Skin Irritation (Rabbit): Moderately irritating

Dermal Sensitization (Guinea Pig): Not a contact sensitizer

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SYMPTOMS OF OVEREXPOSURE: Headaches, nausea, vomiting, cramps, weakness, blurred vision, pinpoint pupils, tightness in chest, labored breathing, nervousness, sweating, watering of eyes, drooling, muscle spasms and coma

POTENTIAL HEALTH EFFECTS:

Eye: Causes severe eye irritation.

Skin: Harmful if absorbed through the skin. Causes moderate skin irritation. Avoid contact with skin, eyes, or clothing.

Inhalation: Harmful if inhaled; avoid breathing vapor or spray mist.

Ingestion: May be fatal if swallowed.

SYMPTOMS OF ACUTE EXPOSURE:

Large doses may cause incoordination, tremor, salivation, vomiting, diarrhea and irritability to sound and touch.

MUTAGENIC POTENTIAL: Bifenthrin: None observed.

TERATOGENIC EFFECTS: Bifenthrin: None observed.

CARCINOGENICITY: Based on a mouse oncogenicity study provided some evidence for carcinogenic potential in this species, EPA classified Bifenthrin as Group C – possible human carcinogen. (2010 EPA Bifenthrin Registration Review : Initial Docket)

Naphthalene CAS No. 91-20-3

ACGIH: Not listed

IARC: 2B*

NTP: 2**

OSHA: Not listed

* Substances that may reasonably be anticipated to be carcinogens.

** Substance is possibly carcinogenic to humans.

12. ECOLOGICAL INFORMATION

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 actively visiting the treatment area. The use of Bifen 2 AG Gold 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.

ECOTOXICOLOGY:

Bifenthrin is very highly toxic to fish, crustaceans and aquatic animals. Care should be taken to avoid contamination of the aquatic environment. LC₅₀: 0.00015 mg/L (rainbow trout), 0.00035 mg/L (bluegill), 0.0016 mg/L (daphnia).

Bifenthrin is moderately toxic to many species of bird.

LC₅₀ : 1,280 ppm (mallard duck); 4,450 ppm (bobwhite quail).

LD₅₀ : 2,150 mg/kg (mallard duck); 1,800 mg/kg (bobwhite quail),

Bifenthrin is toxic to bees.

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Dispose of product containers, waste containers, and residues according to local, state, and federal regulations. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law.

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CONTAINER DISPOSAL: Triple-rinse (or equivalent) then offer for recycling or reconditioning, or puncture and dispose in a sanitary landfill, or by other procedures approved by state and local authorities. Do not cut or weld metal containers.

14. TRANSPORT INFORMATION

DOT CLASSIFICATION:

UN 3352, Pyrethroid pesticides, liquid, toxic, 6.1, PGIII

Limited quantity Designation: Packages with inner packagings not over 5 liters (1.3 gallons) may be reclassified as Limited Quantity.

ORM-D Designation : (The consumer commodity exception can be taken until 12/31/2020)
Combination packages with inner packagings less than 4 liters (1.057 gallons) may be reclassified as Consumer Commodity (ORM-D). Consumer Commodity (ORM-D) classification is for domestic surface/ground shipments only (4x1-gallon and 4x1-quart packages). Air shipments remain regulated.

15. REGULATORY INFORMATION

FIFRA 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 for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

WARNING May be fatal if swallowed. Causes substantial but temporary eye injury. Harmful if absorbed through skin or inhaled. Do not get in eyes or on clothing. Avoid breathing spray mist. Avoid contact with skin. Wear protective eyewear (goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

SARA TITLE III CLASSIFICATION:

Section 302:	Not applicable.
Section 311/312:	Acute health hazard (immediate) Chronic health hazard (delayed)
Section 313:	Bifenthrin (CAS No. 82657-04-3) Naphthalene (CAS No. 91-20-3) 1,2,4 – Trimethyl Benzene (CAS No. 95-63-6)

CERCLA RQ: Naphthalene RQ=100 lbs

RCRA CLASSIFICATION: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA STATUS: All ingredients are listed on the TSCA inventory or are not required to be listed on the TSCA inventory.

CA PROPOSITION 65: This product contains a material (naphthalene) known to the State of California to cause cancer.

STATE RIGHT-TO-KNOW:

Bifenthrin (CAS No. 82657-04-3) – NJ
Naphthalene (CAS No. 91-20-3) – IL, MN, NJ, PA, RI
1, 2, 4 – Trimethyl Benzene (CAS No. 95-63-6) – IL, MN, NJ, PA, RI

16. OTHER INFORMATION

NFPA HAZARD RATINGS	NFPA	HMIS		
HEALTH:	2	2	0	MINIMAL
FLAMMABILITY:	1	1	1	SLIGHT
REACTIVITY:	0	0	2	MODERATE
			3	HIGH
			4	SEVERE

SDS DATE: 4-9-2015. Supersede version dated 5-31-2012. Changes made to all sections.

The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state, or provincial, and local laws.