

1. IDENTIFICATION

PRODUCT NAME:	CYPER G-AG 2.5 EC
EPA REGISTRATION NO. :	83222-7
CHEMICAL NAME OF ACTIVE INGREDIENT(S):	Cypermethrin: (±)α-Cyano(3-phenoxyphenyl)methyl(±)3-(2,2-dichloroethenyl)-2,2dimethylcyclopropanecarboxylate Insecticide
PRODUCT TYPE:	
COMPANY NAME:	Direct Ag Source, LLC 30473 260 th St. 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).

HAZARD CLASSIFICATIONS:

Acute oral toxicity: Category 4
Acute inhalation toxicity: Category 4
Eye irritation: Category 2B
Skin irritation: Category 2
Specific target organ toxicity (repeated exposure): Category 2 (Cypermethrin)
Flammable liquid: Category 3

SIGNAL WORD: WARNING

PICTOGRAMS:



HAZARD STATEMENTS:

- Harmful if swallowed
- Harmful if inhaled
- Causes eye irritation
- Cause skin irritation
- Flammable liquid and vapor
- Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS:

- Wash hand thoroughly after handling. Do not eat, drink or smoke when using this product. If swallowed, immediately call a poison center or a doctor. 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.
- 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.
- Wash hand thoroughly after handling. 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.
- Keep away from heat, sparks open flames and hot surfaces. No smoking. Keep container tightly closed. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye protection or face protection. Store in a well ventilated place. If on skin (or hair): take off immediately all contaminated clothing. Rinse skin with water/shower. See Section 5 for fire extinguish information.
- 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 liquid. Do not use or store near heat or open flame. Not compatible with strong oxidizers, strong acids.

STORAGE AND DISPOSAL: See Section 7 and 13.

OTHER HAZARDS: See Section 11 and 12

3. COMPOSITION/INFORMATION ON INGREDIENTS

ACTIVE INGREDIENT	CAS NO.	%
Cypermethrin	52315-07-8	30.6
Mineral oil	64742-55-8	< 30
Aromatic hydrocarbons		< 40

4. FIRST AID MEASURES

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none">• Immediately call a poison control center or doctor.• Do not give any liquid to a person.• 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.
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 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.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the Rocky Mountain Poison control center at 1-866-673-6671 for emergency medical treatment information. For chemical emergency: Spill, leak, fire, exposure, or accident, call Chemtrec at 1-800-424-9300.	
NOTE TO PHYSICIAN: Contains petroleum distillates – vomiting may cause aspiration pneumonia.	

5. FIRE FIGHTING MEASURES

FLASH POINT: 50°C (>122°F) (Pensky Martin Closed Cup)

AUTOIGNITION TEMPERATURE: Not available

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FLAMMABLE LIMITS: Not applicable

EXTINGUISHING MEDIA: Foam, carbon dioxide (CO₂), dry chemical.

FIRE/EXPLOSION HAZARD: Combustible material. Heated material can form flammable and explosive vapors with air.

FIRE FIGHTING PROCEDURES: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire.

PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: Wear positive pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves). If protective equipment isn't available or not used, fight fire from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Dike surrounding area or absorb with sand, cat litter or commercial clay.

ENVIRONMENTAL PRECAUTIONS: Keep material out of lakes, streams, ponds and sewer drains. Dike to confine spill and absorb with an absorbent such as clay, sand or soil. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in water characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

METHODS FOR CLEAN-UP: Remove all ignition sources. 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 TO BE TAKEN IN HANDLING: Keep out of reach of children. Open and pour this product in a well ventilated area. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

PRECAUTIONS TO BE TAKEN IN STORAGE: Do not store below 10°F (-12°C). Store in original containers only. Store in a cool, dry place and avoid excessive heat.

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.

Pesticide applicator and workers must refer to product labeling and directions for use in accordance with EPA worker protection standard 40 CFR Part 170.

EYE/FACE PROTECTION: Where there is potential for eye contact have eye flushing equipment available. Use eye protection to avoid eye contact.

SKIN/HAND PROTECTION: Wear protective gloves/clothing. Socks and footwear.

RESPIRATOR REQUIREMENTS: Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full face piece 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.

USER SAFETY RECOMMENDATIONS:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

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- 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.

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.

EXPOSURE LIMITS:

Chemical Name	CAS NO.	ACGIH/TLV	OSHA/PEL
Mineral oil	64742-55-8	5 mg/m ³ (Mist.)	NE

NE: Not Established

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Yellow liquid

ODOR: Aromatic

FLASH POINT: 50°C (>122°F) (Pensky Martin Closed Cup)

pH: 4.71

SPECIFIC GRAVITY: 0.971

SOLUBILITY: Emulsifies

10. STABILITY AND REACTIVITY

STABILITY: This product is stable under normal use and storage.

CONDITIONS TO AVOID: Heat, flames and sparks

MATERIALS TO AVOID: Not known

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide (CO₂), hydrogen cyanide, hydrogen chloride, chlorine.

HAZARDOUS POLYMERIZATION: None under normal processing.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES:

Acute Oral LD50 (Rat):	355 mg/kg
Acute Dermal LD50 (Rat):	> 2,000 mg/kg
Acute Inhalation LC50 (Rat):	> 2.02 mg/L (4-hr rat)
Eye Irritation (Rabbit):	Moderately irritating
Dermal Irritation (Rabbit):	Moderately irritating
Dermal Sensitization (Guinea Pig):	Not a skin sensitizer

POTENTIAL HEALTH EFFECTS:

EYE: May cause tearing.

SKIN: Skin contact may produce skin sensation such as numbing, burning, or tingling. These sensations are reversible within 12-24 hours of onset.

INGESTION: Mild to severe lung injury may occur if material is drawn into the lungs during swallowing, or during vomiting after swallowing.

CHRONIC TOXICITY AND CARCINOGENICITY :

Cypermethrin: In animal studies cypermethrin did not cause reproductive toxicity, teratogenicity, neurotoxicity or carcinogenicity in male and female rats and male mice. Cypermethrin caused an increase in benign lung tumors in female mice at 1600 ppm in the diet. The EPA concluded on a weight of evidence approach that cypermethrin represents a low oncogenic potential to female mice at this dose level (approximately 228 mg/kg/day). Liver enlargement is often noted in laboratory animals that have ingested large doses of cypermethrin in their life span. An overall absence of genotoxicity has been demonstrated in tests of mutagenicity, DNA damage and chromosome aberrations.

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Mineral Oil: Highly refined mineral oils are not classified as human carcinogens. However, related forms (untreated and mildly-treated oils used in metal machining, mule spinning and jute processing) are listed as human carcinogens by both IARC (group 1) and NTP.

TARGET ORGANS: Cypermethrin: Liver enlargement is often noted in laboratory animals that have ingested large doses of during their life span.

Chemical Name	ACGIH	IARC	NTP	OSHA
Mineral oil		Group 3		

IARC Group 3: Cannot be classified as to carcinogenicity to humans.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This pesticide is extremely toxic to fish, aquatic invertebrates, oysters, and shrimp. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply 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 cleaning equipment or disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it drift to blooming crops if bees are actively visiting the treatment area.

ECOTOXICITY INFORMATION: (Based on Cypermethrin technical)

Cypermethrin: Is rapidly degraded in soil with a half life of 2-4 weeks. It is readily hydrolyzed under basic conditions; hydrolysis half-life period can be 20-29 days. Cypermethrin has a high affinity for organic matter and a Log Pow of 5.0; yet, because of the ease with which the material undergoes degradation, it has very low potential for bioconcentration (BCF = 17), and it is not mobile in soil.

Cypermethrin is considered extremely toxic to fish and aquatic arthropods, and has LC₅₀ values which range from 0.004 µg/L to 3.6 µg/L. The aquatic arthropods tended to be some of the more sensitive species. Care should be taken to avoid contamination of the aquatic environment. Cypermethrin is slightly toxic to birds and oral LD₅₀ values are greater than 10, 248 mg/kg.

Rain trout LC₅₀: 0.92 µg/L

Bluegill LC₅₀: 1.8 µg/L

Bobwhite quail LC₅₀ (8-day dietary): > 20,000 ppm

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: 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 of the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Do not reuse empty containers. Place in trash or offer for recycling if available. Never place unused product down any indoor or outdoor drain. Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT CLASSIFICATION:

Non-bulk : Not Regulated

Bulk : NA 1993, Combustible Liquid (contains aromatic hydrocarbons), PG III

INTERNATIONAL TRANSPORTATION:

IMO (vessel): Contact registrant.

IATA (air): Contact registrant.

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. Harmful if absorbed through the skin. Avoid contact with skin, eyes or clothing. Causes moderate eye irritation. Open and pour this product in a well ventilated area.

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.
Section 311/312: Acute health hazard (immediate)
Fire hazard
Section 313: Not applicable

CA PROPOSITION 65: Not applicable

CERCLA RQ: Not applicable

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.

STATE RIGHT-TO-KNOW: The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

<u>Chemical Name</u>	<u>CAS Number</u>	<u>List</u>
Cypermethrin	52315-07-8	MA
Mineral oil	64742-55-8	MA; NJ (Substance No. 1437); PA

16. OTHER INFORMATION

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

SDS DATE: 4-9-2015. Supersedes version dated 5-15-2012. Changes made to sections 1, 2, 11 and 12.

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.