

SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC)



1. IDENTIFICATION

PRODUCT NAME: Krovar® IVM Herbicide
DESCRIPTION: A granular herbicide.
EPA Reg. No.: 81927-3

COMPANY IDENTIFICATION:

Alligare, LLC
1565 5th Ave
Opelika, AL 36801
334-741-9393

2. HAZARD IDENTIFICATION

WARNING

Causes eye irritation (H320)
May be harmful if swallowed or in contact with skin (H303+H313)
Suspected of causing cancer (H351)
May cause damage to organs through prolonged or repeated exposure (H373)
Very toxic to aquatic life with long lasting effects (H400+H410)



HAZARD CLASSIFICATION

Health Hazard	Category	Physical Hazards	Category
Eye Damage / Irritation	2B	None	-
Acute Toxicity, Oral	5		
Acute Toxicity, Dermal	5	Environmental Hazards	Category
Carcinogenicity	2	Hazardous to the aquatic environment, acute	1
Specific target organ toxicity, repeated exposure	2	Hazardous to the aquatic environment, chronic	1

HAZARDS NOT REQUIRING CLASSIFICATION

None

PRECAUTIONARY STATEMENTS

Do not handle until all safety precautions have been read and understood. (P202)
Do not breath dust. (P260)
Wear protective gloves/protective clothing. Refer to Section 8 for specific PPE requirements. (P280)
Wash hands and skin thoroughly after handling. (P264)
Avoid release to the environment not in accordance with the product label. (P273)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. (P305+P351+P338+P337+P313)
IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. (P302+P312)
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. (P301+P312)
If exposed or concerned: Get medical advice/attention. (P308+P313)
Get medical advice/attention if you feel unwell. (P314)
Collect spillage. (P391)
Store locked up. (P405)
Dispose of contents / containers in accordance with local, State and Federal regulations. Refer to the product label for specific disposal instructions. (P501)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name	Chemical Name	CAS #	Composition
Bromacil	5-bromo-3-sec-butyl-6-methyluracil	314-40-9	40.0%
Diuron	3-(3,4-dichlorophenyl)-1,1-dimethylurea	330-54-1	40.0%

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact CHEMTREC at **1-800-424-9300** for emergency medical treatment information.

IF SWALLOWED: 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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a doctor or poison control center if you feel unwell.

IF IN EYES: 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. If eye irritation persists: Get medical advice/attention.

5. FIREFIGHTING MEASURES

Fire and Explosion Hazards: Dust may form explosive mixture in air. Thermal decomposition may release irritating gases and fumes (see Section 10).

Extinguishing Medium: Water spray, foam, dry chemical or carbon dioxide (CO₂).

Fire Fighting Equipment: Firefighters should be equipped with self-contained positive pressure breathing apparatus and full bunker gear.

Fire Fighting Instructions: Evacuate area of all unnecessary personnel and fight fire from a safe distance upwind. Contain contaminated water / firefighting water; do not allow to enter drains or waterways. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.

NFPA Ratings: Health – 1 / Flammability – 1 / Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately observing the precautions in Section 8 of this SDS. Isolate the hazard area and keep unnecessary and unprotected personnel from entering. Shovel into bags or boxes, do not return to container for reuse. Prevent material from contaminating soil or from entering sewage and drainage systems and bodies of water. If spill area is on ground near valuable plants or trees, remove top two inches of soil after initial cleanup.

7. HANDLING AND STORAGE

Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

Do not contaminate water, food or feed by storage. Store at temperatures above 32°F, do not allow product to freeze.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

Protective Clothing: Persons coming into contact with this product must wear long-sleeved shirt and long pants, shoes plus socks, chemical-resistant gloves (such as Nitrile, Butyl, Neoprene, and / or Barrier Laminate), and a NIOSH-approved particulate filtering respirator equipped with N, R, or P class filter media (The respirator should have a NIOSH approval number prefix TC-84A and it is recommended that you require the respirator wearer be fit tested, and trained in the use, maintenance, and limitations of the respirator). When mixing, loading or cleaning equipment, in addition to the above, a chemical-resistant apron must be worn.

Discard clothing or 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/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

General: 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 into clean clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	beige powder	pH:	8.0 – 9.0
Odor:	odorless	Kinematic viscosity:	Not available
Melting/freezing point:	Not available	Solubility:	Dispersible
Boiling point/Boiling range:	Not available	Partition coefficient:	Not available
Flammability:	Not available	Vapor pressure:	Not available
Flammability limits (upper/lower):	Not available	Density:	0.591 g/mL (pour)
Flash point:	Not available	Relative vapor density:	Not available
Auto-ignition temperature:	420°C (788°F)	Particle characteristics:	Not available
Decomposition temperature:	Not available		

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: None known.

CHEMICAL STABILITY: Stable under all normal use and storage conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: None when stored and handled as prescribed. Thermal decomposition may release toxic and irritating fumes.

INCOMPATIBILITY WITH OTHER MATERIALS: None known.

POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ORAL TOXICITY (rat LD₅₀): 2,300 mg/kg

DERMAL TOXICITY (rabbit LD₅₀): > 2,000 mg/kg

INHALATION TOXICITY (rat LC₅₀): > 5.2 mg/L (4-hour)

EYE IRRITATION: Moderately irritating

SKIN IRRITATION: Slightly irritating

SKIN SENSITIZATION: Not sensitizing

CARCINOGENICITY:

EPA: Group C (Possible Human Carcinogen) (Bromacil)
"known / likely" human carcinogen (Diuron)

ACGIH: A3 (bromacil) **NTP:** Not Listed

IARC: Not Listed **OSHA:** Not Listed

MUTAGENIC TOXICITY: No evidence of mutagenic effects during *in vivo* and *in vitro* assays.

REPRODUCTIVE TOXICITY: No evidence in animal studies.

OTHER TOXICITY: May cause damage to organs through prolonged or repeated exposure.

12. ECOLOGICAL INFORMATION

For terrestrial uses, 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 contaminate water when cleaning equipment or disposing of equipment washwaters.

Bromacil is known to leach through soil and has been found in ground water as a result of normal field use. Apply this product only as specified on this label.

This product is very toxic to aquatic life with long lasting effects.

Chemical Name	Algae / Aquatic plants	Fish	Microorganisms	Crustacea
Bromacil 314-40-9		180-192 mg/L: 96h LC ₅₀ Pimephales promelas 32 mg/L: 96h LC ₅₀ Lepomis macrochirus 30-40 mg/L: 96h LC ₅₀ Oncorhynchus mykiss		
Diuron 330-54-1	0.022 mg/L: 96h EC ₅₀ Desmodesmus subspicatus 0.036 mg/L: 72h EC ₅₀ (static) Desmodesmus subspicatus 0.1 mg/L: 72h EC ₅₀ (static) Pseudokirchneriella subcapitata 0.0007: 96h EC ₅₀ (static) Pseudokirchneriella subcapitata	13.4-15 mg/L: 96h LC ₅₀ Pimephales promelas 2.3-3.3 mg/L: 96h LC ₅₀ Lepomis macrochirus 14.7 mg/L: 96h LC ₅₀ Oncorhynchus mykiss 2.9 mg/L: 96h LC ₅₀ Cyprinus carpio	16.38 mg/L: 5m EC ₅₀	1.4 mg/L: 48h EC ₅₀ Daphnia magna 6.3-13 mg/L: 48h EC ₅₀ Daphnia magna (static)

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Refer to the product label for specific container handling instructions.

14. TRANSPORT INFORMATION

UN Number: UN3077
Proper Shipping Name: Environmentally hazardous substance, solid, N.O.S. (contains Bromacil, Diuron)
Transport Hazard Class: 9
Packing Group: III
Hazard Zone: A
Marine Pollutant: Yes¹
Hazardous Substance RQ: Diuron (CAS No. 330-54-1) (40%): RQ 100 lbs. (250 lbs. product)
Labels / Placards: US-DOT: Class 9 Environmentally Hazardous Substance²
IMDG, IATA: Class 9 Environmentally Hazardous Substance³

Emergency Guide: N/A

¹ **Marine Pollutant Note:** Ground-only shipments are excluded from Marine Pollutant labeling requires as per 49CFR172.101 Appendix B (4). For any shipments involving all or part of the transport by vessel, the shipment must be classified as a Marine Pollutant unless a limited quantity exemption applies (see note 3 below).

² **US-DOT Note:** Not regulated for "ground only" shipments in containers < 250 lbs.

³ **IMDG / IATA Note:** Not regulated when shipped in single or inner packaging ≤ 11 lbs. (5 kg).

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

FIFRA –

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. The following is the hazard information as required on the pesticide label:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. See inside label booklet for additional Precautionary Statements and Directions for Use.

ENVIRONMENTAL HAZARDS

For terrestrial uses, 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 contaminate water when cleaning equipment or disposing of equipment washwaters.

Bromacil is known to leach through soil and has been found in ground water as a result of normal field use. Users are advised not to apply in areas where soils are permeable, particularly where ground water is used for drinking water. Consult with the pesticide state lead agency for information regarding soil permeability and aquifer vulnerability in your area. Apply this product only as specified on this label.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

SARA Title III – Section 302 Extremely Hazardous Substances

Not listed

SARA Title III – Section 311/312 Hazard Categories

Immediate, Delayed

SARA Title III – Section 312 Threshold Planning Quantity

N/A

SARA Title III – Section 313 Reportable Ingredients


Bromacil (CAS No. 314-40-9) (40%)

Diuron (CAS No. 330-54-1) (40%)

CERCLA –

Diuron (CAS No. 330-54-1) (40%): RQ 100 lbs. (250 lbs. of this product)

CALIFORNIA PROP 65 STATUS –

 **WARNING:** This product can expose you to chemicals including diuron, which is known to the state of California to cause cancer. For more information go the www.P65Warnings.ca.gov.

CANADA –

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

16. OTHER INFORMATION

THIS INFORMATION IN THIS SDS IS BASED ON DATA AVAILABLE AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT ALLIGARE, LLC TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS. JUDGMENTS AS TO THE SUITABILITY OF THE INFORMATION HEREIN FOR THE INDIVIDUAL'S OWN USE OR PURPOSES IS NECESSARILY THE INDIVIDUAL'S OWN RESPONSIBILITY. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF SUCH INFORMATION, ALLIGARE, LLC EXTENDS NO WARRANTIES, MAKES NO

REPRESENTATIONS, AND ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF SUCH INFORMATION FOR APPLICATION TO THE INDIVIDUAL'S PURPOSES OR THE CONSEQUENCES OF ITS USE.

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

SDS Version: 4.0

Effective Date: 3/22/23