

SAFETY DATA SHEET

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



1. IDENTIFICATION

PRODUCT NAME: Hyvar® X-L IVM Herbicide

DESCRIPTION: A liquid herbicide.

EPA Reg. No.: 81927-77

COMPANY IDENTIFICATION:

Alligare, LLC

1565 5th Avenue

Opelika, AL 36801

2. HAZARD IDENTIFICATION

WARNING

May cause damage to organs through prolonged or repeated exposure (H373)

Suspected of causing cancer (H351)

Causes skin and eye irritation (H315+H320)

Flammable liquid and vapor (H226)

Harmful if inhaled (H332)

Very toxic to aquatic life (H400)



HAZARD CLASSIFICATION

Health Hazard	Category	Physical Hazards	Category
Specific Target Organ Toxicity, Repeated Exposure	2	Flammable liquids	3
Carcinogenicity	2		
Skin irritation	2	Environmental Hazards	Category
Eye Damage / Irritation	2B	Hazardous to the aquatic environment, acute	1
Acute Toxicity, Oral	4		
Acute Toxicity, Inhalation	4		

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)

None.

PRECAUTIONARY STATEMENTS

Do not handle until all safety precautions have been read and understood. (P202)

Wash hands and exposed skin thoroughly after handling. (P264)

Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. (P210)

Do not breathe mist / vapors / spray. Use only outdoors or in a well-ventilated area. (P260+P271)

Wear protective clothing as described in Section 8 of this document. (P280)

IF ON SKIN (or hair): Wash with plenty of water. For specific treatment (see Section 4 of this document).

If skin irritation occurs: Get medical advice / attention. Take off immediately contaminated clothing and wash it before reuse. (P303+P352+P321+P332+P313+P361+P364)

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 INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison control center or doctor if you feel unwell. (P304+P340+P301+P312)

IF exposed or concerned: Get medical advice / attention. (P308+P313)

Get medical advice / attention if you feel unwell. (P314)

Store locked up. (P405)

Avoid release to the environment not in accordance with the product label. Collect spillage. (P273 +P391)

Dispose of contents / container in accordance with local regulations. Refer to the product label for specific disposal instructions. (P501)

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Common Name</u>	<u>Chemical Name</u>	<u>CAS #</u>	<u>Composition</u>
Bromacil	5-bromo-3-sec-butyl-6-methyluracil	314-40-9	21.4%
Ethanediol	1,2-Ethanediol	107-21-1	32.1%
Ethanol	Ethanol	64-17-5	6.1%
Methyl alcohol	Methanol	67-56-1	3.9%
Lithium hydroxide	Lithium hydroxide	1310-66-3	3.8%

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 1-800-424-9300 for emergency medical treatment information.

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. Call a poison control center or doctor for treatment advice.

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 a 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 poison control center or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

5. FIREFIGHTING MEASURES

Flash Point (PMCC): 44°C

Flammable Limits (LFL-UFL): Not Determined

Fire and Explosion Hazards: Dangerous gases are evolved in the event of a fire.

Extinguishing Medium: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Fire Fighting Equipment: Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Fire Fighting Instructions: Evacuate personnel to safe areas. Keep out of smoke. Fight fire from upwind position. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous Combustion Products: Thermal decomposition can lead to the release of: carbon oxides, methanol, or ethanol.

NFPA Ratings: Health – 1 / Flammability – 2 / Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Remove all sources of ignition. Evacuate and isolate spill area. Avoid contact with spilled product or contaminated surfaces.

Spill Cleanup: Dike area to prevent runoff. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Decontaminate tools and equipment following cleanup. Contaminated soil may have to be removed and disposed.

7. HANDLING AND STORAGE

Handling: Use only in area provided with appropriate exhaust ventilation. Handle and open container in a manner as to prevent spillage. Keep away from heat and sources of ignition. Vapors may form explosive mixture with air. Take measures to prevent the build up of electrostatic charge.

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove contaminated clothing immediately and dispose of safely. Wash thoroughly and put on clean clothing

Storage: Store in original container and out of the reach of children, preferably in a locked storage area. Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Control Parameters

Components	CAS No.	Control Parameters	Update	Basis
Bromacil	314-40-9	10 mg/m ³ (TWA)	02 2012	ACGIH
Bromacil	314-40-9	10 mg/m ³ /1ppm (REL)	2010	NIOSH
Bromacil	314-40-9	10 mg/m ³ /1ppm (TWA)	1989	OSHA Z1A
Bromacil	314-40-9	10 mg/m ³ /1ppm (TWA)	06 2008	TN OEL
Bromacil	314-40-9	10 µg/m ³ (AN ESL)	07 2011	TX ESL
Bromacil	314-40-9	100 µg/m ³ (ST ESL)	07 2011	TX ESL
Bromacil	314-40-9	10 ppb (ST ESL)	07 2011	TX ESL
Bromacil	314-40-9	1 ppb (AN ESL)	07 2011	TX ESL
Bromacil	314-40-9	10 mg/m ³ /1ppm (TWA PEL)	08 2010	US CA OEL
Ethanediol (Aerosol)	107-21-1	100 mg/m ³ (CEILING)	02 2012	ACGIH
Ethanediol	107-21-1	25 ppm (TWA)	03 2015	ACGIH NIC
Ethanediol	107-21-1	50 ppm (TWA)	03 2015	ACGIH NIC
Ethanediol	107-21-1	10 mg/m ³ (TWA)	03 2015	ACGIH NIC
Ethanediol	107-21-1	125mg/m ³ /50ppm (CEILING)	1989	OSHA Z1A
Ethanediol	107-21-1	125mg/m ³ /50ppm (CEILING)	06 2008	TN OEL
Ethanediol	107-21-1	100 ppb (ST ESL)	03 2014	TX ESL
Ethanediol	107-21-1	10 ppb (AN ESL)	03 2014	TX ESL
Ethanediol	107-21-1	26 µg/m ³ (AN ESL)	03 2014	TX ESL
Ethanediol	107-21-1	260 µg/m ³ (AN ESL)	03 2014	TX ESL
Ethanediol (Vapor)	107-21-1	100mg/m ³ /40ppm (CEILING)	08 2010	US CA OEL
Ethanediol (Vapor)	107-21-1	10 ppm (TWA)		OES*
Ethanediol (Aerosol)	107-21-1	10 mg/m ³ (TWA)		OES*
Ethanol	64-17-5	1,000 ppm (STEL)	02 2012	ACGIH
Ethanol	64-17-5	1,900mg/m ³ /1,000 ppm (REL)	2010	NIOSH
Ethanol	64-17-5	1,900mg/m ³ /1,000 ppm (PEL)	02 2006	OSHA Z1
Ethanol	64-17-5	1,900mg/m ³ /1,000 ppm (TWA)	1989	OSHA Z1A
Ethanol	64-17-5	1,900mg/m ³ /1,000 ppm (TWA)	06 2008	TN OEL
Ethanol	64-17-5	1,010 ppb (ST ESL)	02 2013	TX ESL
Ethanol	64-17-5	1,910 µg/m ³ (ST ESL)	02 2013	TX ESL
Ethanol	64-17-5	1,000 ppb (AN ESL)	07 2011	TX ESL
Ethanol	64-17-5	1,880 µg/m ³ (AN ESL)	07 2011	TX ESL
Ethanol	64-17-5	1,900mg/m ³ /1,000 ppm (TWA PEL)	08 2010	US CA OEL
Ethanol	64-17-5	500 ppm (TWA EV)		OES*

Components	CAS No.	Control Parameters	Update	Basis
Methanol	67-56-1	200 ppm (TWA)	02 2012	ACGIH
Methanol	67-56-1	250 ppm (STEL)	02 2012	ACGIH
Methanol	67-56-1	325 mg/m ³ /250 ppm	2010	NIOSH
Methanol	67-56-1	260mg/m ³ /200ppm (REL)	02 2006	NIOSH
Methanol	67-56-1	260mg/m ³ /200ppm (PEL)	02 2006	OSHA Z1
Methanol	67-56-1	325mg/m ³ /250ppm (STEL)	1989	OSHA Z1A
Methanol	67-56-1	260mg/m ³ /200ppm (TWA)	1989	OSHA Z1A
Methanol	67-56-1	325mg/m ³ /250ppm (STEL)	06 2008	TN OEL
Methanol	67-56-1	260mg/m ³ /200ppm (TWA)	06 2008	TN OEL
Methanol	67-56-1	1,600 ppb (AN ESL)	03 2014	TX ESL
Methanol	67-56-1	2,100 µg/ m ³ (AN ESL)	03 2014	TX ESL
Methanol	67-56-1	3,000 ppb (ST ESL)	03 2014	TX ESL
Methanol	67-56-1	3, 900 µg/m ³ (ST ESL)	03 2014	TX ESL
Methanol	67-56-1	325mg/m ³ /250ppm (STEL)	08 2010	US CA OEL
Methanol	67-56-1	1,000 ppm (CEILING)	08 2010	US CA OEL
Methanol	67-56-1	260mg/m ³ /200ppm (TWA PEL)	08 2010	US CA OEL
Methanol	67-56-1	200 ppm (TLV)		OES*
Lithium hydroxide	1310-66-3	1 µm/m ³ (AN ESL)	03 2014	TX ESL
Lithium hydroxide	1310-66-3	10 µm/m ³ (ST ESL)	03 2014	TX ESL
Lithium hydroxide	1310-66-3	1 mg/m ³ (CEILING)	2014	WEEL

*OES: "Occupational Exposure Standard"

Protective Clothing: Applications and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, and chemical-resistant gloves made of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride ≥14 mils or viton ≥14 mils.

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply. When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations. Chemical resistant nitrile rubber gloves. Safety glasses with side-shields or goggles. Wear long-sleeved shirt and long pants and shoes plus socks.

General: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	light brown to yellow liquid	pH:	11.2-12.5 @ 100%
Odor:	alcohol-like	Kinematic viscosity:	not available
Melting/freezing point:	not available	Solubility:	soluble
Boiling point/Boiling range:	not available	Partition coefficient:	not available
Flammability:	not available	Vapor pressure:	not available
Flammability limits (upper/lower):	not available	Density:	1.12 g/mL (9.35 lb/gal)
Flash point:	44°C	Relative vapor density:	not available
Auto-ignition temperature:	410°C/770°F	Particle characteristics:	not available
Decomposition temperature:	not available		

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Heat, flames, and sparks.

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

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition can lead to release of carbon oxides, methanol and ethanol.

INCOMPATIBILITY WITH OTHER MATERIALS: Acids and amines

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ORAL TOXICITY (rat LD₅₀): 1,414 mg/kg

DERMAL TOXICITY (rat LD₅₀): > 5,000 mg/kg

INHALATION TOXICITY (rat LC₅₀): > 1.25 mg/L (4-hour)

EYE IRRITATION: Moderate eye irritation. (Rabbit)

SKIN IRRITATION: Moderate skin irritation. (Rabbit)

SKIN SENSITIZATION: Non-sensitizing. (Guinea Pig)

CARCINOGENICITY:

EPA: Group C – Possible Human Carcinogen (Bromacil)

ACGIH: Bromacil (Group A3)

Ethenediol (Group A4)

Ethanol (Group A3)

NTP: Not Listed

IARC: Not Listed

OSHA: Not Listed

REPRODUCTIVE TOXICITY: Ethanol caused reproduction toxicity in generation studies in rats only at dose levels also toxic to the parent animals.

DEVELOPMENTAL TOXICITY: Methanol and Ethanol caused developmental toxicity at dose levels toxic to the dams.

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

12. ECOLOGICAL INFORMATION

Bromacil is known to leach through soil and has been found in ground water as a result of normal field use.

The following is for the active ingredient, Bromacil:

AQUATIC TOXICITY

Bluegill sunfish (96-hr LC₅₀): 127 mg/l

Rainbow Trout (96-hr LC₅₀): 36 mg/l

Water Flea (48-hr LC₅₀): 119 mg/l

Green Algae (72-hr ErC₅₀): 0.017 mg/l

BIODEGRADABILITY

Methanol: Rapidly biodegradable.

Ethanol: Rapidly biodegradable.

MOBILITY IN SOIL

Methanol: Highly mobile in soils.

13. DISPOSAL CONSIDERATIONS

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

CONTAINER DISPOSAL: Nonrefillable and refillable containers. Refer to the product label for specific container handling instructions.

14. TRANSPORT INFORMATION

US-DOT:

Shipping Description: NA1993, Combustible liquid, N.O.S. (contains ethanol, methanol), PG III
RQ: 15,576 lb. of product
Emergency Guide: 128

IMDG:

Shipping Description: UN1993, Flammable liquid, N.O.S. (contains ethanol, methanol, bromacil solution), 3, PG III, Marine Pollutant

IATA:

Shipping Description: UN1993, Flammable liquid, N.O.S. (contains ethanol, methanol, bromacil solution), 3, PG III

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 or absorbed through. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

See inside label booklet for additional Precautionary Statements and Directions for Use including Storage and Disposal instructions.

ENVIRONMENTAL HAZARDS

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 or rinsate.

PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame. Keep container closed when not in use.

15. REGULATORY INFORMATION (CONT.)

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): 21.4%

Ethanediol (CAS No. 107-21-1): 32.1%

Methanol (CAS NO. 67-56-1): 3.9%

CERCLA –

Ethanediol (CAS No. 107-21-1) – 5,000 lbs.

Methanol (CAS No. 67-56-1) – 5,000 lbs.

CALIFORNIA PROP 65 STATUS –

WARNING: This product can expose you to chemicals including ethanediol and methanol, which is known to the State of California to cause developmental. For more information, go to 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 Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS 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: 2.0

Effective Date: 03/28/2023