



SAFETY DATA SHEET

Quali-Pro FlumiShield SC

1. IDENTIFICATION

PRODUCT NAME: Quali-Pro Flumishield SC

DESCRIPTION: A liquid herbicide

EPA Reg. No.: 81927-78-53883

COMPANY IDENTIFICATION:

Control Solutions, Inc.

5903 Genoa Red Bluff

Pasadena, TX 77507

FOR FIRE, SPILL, AND/OR LEAK EMERGENCIES CONTACT: CHEMTREC 1-800-424-9300
FOR MEDICAL EMERGENCIES AND HEALTH AND SAFETY INQUIRIES CONTACT: Safety Call 1-866-897-8050

2. HAZARD IDENTIFICATION

WARNING

Suspected of damaging fertility or the unborn child (H361)

Very toxic to aquatic life with long lasting effects (H400+H410)



HAZARD CLASSIFICATION

Health Hazard

Reproductive toxicity

Category

2

Physical Hazards

None

Category

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Environmental Hazards

Hazardous to the aquatic environment, short-term (acute)

Hazardous to the aquatic environment, long-term (chronic)

Category

1

1

HAZARDS NOT REQUIRING CLASSIFICATION

Do not mix or allow coming in contact with oxidizing agents. Hazardous chemical reaction may occur.

PRECAUTIONARY STATEMENTS

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

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

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

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

Store locked up. (P405)

Dispose of contents / containers at an approved waste disposal plant in accordance with local, State and Federal 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>
Flumioxazin	2-[7-Fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isindole-1,3(2H)-dione	103361-09-7	42.0%
Propylene glycol	1,2-propanediol	57-55-6	<6.0%

Note: Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

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.



SAFETY DATA SHEET

Quali-Pro FlumiShield SC

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.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Wash with soap and water. Get medical attention if irritation or symptoms develop.

IF INHALED: Move person to fresh air. If symptoms develop, get medical advice.

5. FIREFIGHTING MEASURES

Fire and Explosion Hazards: May thermally decompose in fire releasing irritating and toxic gases.

Extinguishing Medium: Foam, dry extinguishing media, CO₂, water spray or fog.

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.

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

Hazardous Combustion Products: Thermal decomposition may produce gases such as fluorine compounds and oxides of carbon and nitrogen.

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

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Isolate area and keep unnecessary and unprotected personnel from entering. Wear suitable personal protective clothing and equipment as described in Section 8 of this document.

Small Spills: Absorb using sand, vermiculite or other inert absorbent. Place contained material in appropriate container for disposal.

Large Spills: Dike spillage and recover and retain as much free liquid as possible for reuse. Pick up remainder with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. After removal, thoroughly clean contaminated area with a detergent slurry, absorb and sweep into container for disposal. Decontaminate tools and equipment following cleanup.

7. HANDLING AND STORAGE

Handling: Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Storage: Keep pesticide in original container. Store in a cool, dry, secure place. Do not put formulation or dilute spray solution into food or drink containers. Do not contaminate food or foodstuffs. Do not store or transport near feed or food. Not for use or storage in or around the home.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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

Exposure guidelines:

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
Flumioxazin	Not established	Not established	Not established	Not established	
Propylene glycol	10 (WEEL)	Not established	Not established	Not established	mg/m ³

Protective Clothing: Wear long-sleeved shirt and long pants, shoes, socks, and chemical resistant gloves made of any waterproof material.

General: 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. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.



SAFETY DATA SHEET

Quali-Pro FlumiShield SC

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:	opaque off-white liquid	pH:	6-7 (1% w/w)
Odor:	mildly sweet	Viscosity:	non-Newtonian fluid
Melting / Freezing point:	not determined	Water Solubility:	soluble in water
Boiling Point / Boiling Range:	not determined	Partition coefficient:	not determined
Flammability:	not flammable	Vapor Pressure:	not determined
Flammability Limits (upper/lower):	not determined	Density:	1.15 g/cm ³ 9.6 lbs./gal.
Flash Point (closed cup):	not determined	Vapor Density:	not determined
Auto-ignition Temperature:	not determined	Particle Characteristics:	not determined
Decomposition Temperature:	not determined		

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Excessive heat. Do not store near heat or flame.

CHEMICAL STABILITY: Stable under normal use and storage conditions.

INCOMPATIBLE MATERIALS: Strong oxidizing agents such as chlorates, nitrates, and peroxides.

HAZARDOUS REACTIONS: This product is chemically stable. No hazardous reactions if stored and handled as prescribed/indicated.

HAZARDOUS DECOMPOSITION PRODUCTS: Under fire conditions, may product gases such as fluorine compounds and oxides of carbon and nitrogen.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

The following information is from a substantially similar product:

ORAL TOXICITY (rat LD₅₀): > 5000 mg/kg

DERMAL TOXICITY (rat LD₅₀): > 5000 mg/kg

INHALATION TOXICITY (rat LC₅₀): > 2.10 mg/L (4-hour) (no mortalities)

EYE IRRITATION: Non-irritating

SKIN IRRITATION: Slightly irritating

SKIN SENSITIZATION: Not a contact sensitizer

CARCINOGENICITY:

EPA: Not likely to be carcinogenic to humans (flumioxazin)

ACGIH: Not Listed

NTP: Not Listed

IARC: Not listed

OSHA: Not Listed

MUTAGENIC TOXICITY: No evidence of mutagenic effects during *in vivo* or *in vitro* studies for the active ingredient.

REPRODUCTIVE TOXICITY / DEVELOPMENTAL TOXICITY / TERATOGENICITY: Reproductive effects were observed in rats exposed to high levels of flumioxazin technical. Flumioxazin technical produced birth defects in the offspring of female rats.

OTHER TOXICITY: Compound related effects of flumioxazin technical noted in rats following subchronic exposures at high dose levels were hematotoxicity including anemia, and increases in liver, spleen, heart, kidney and thyroid weights. In dogs, the effects produced at high dose levels included a slight prolongation in activated partial thromboplastin time, increased cholesterol and phospholipid, elevated alkaline phosphatase, increased liver weights and histological changes in the liver. The lowest no-observable-effect-level (NOEL) in subchronic studies was 30 ppm in the three-month toxicity study in rats. Repeated exposures to flumioxazin technical in animals have produced anemia and other blood formation changes, organ weight changes and changes in blood chemistry. Flumioxazin technical did not produce cancer in life-time feeding studies in laboratory animals.



SAFETY DATA SHEET

Quali-Pro FlumiShield SC

12. ECOLOGICAL INFORMATION

Flumioxazin technical is practically non-toxic to bees and avian species. It is slightly to moderately toxic to freshwater fish and moderately to highly toxic to aquatic invertebrates.

The following information is for the active ingredient, flumioxazin:

Rainbow Trout (96hr LC₅₀): 2.3 mg/L
Daphnia (96hr LC₅₀): >5.5 mg/L
Shrimp (96hr LC₅₀): 0.23 mg/L
Honeybee (contact LC₅₀): 105 µg/bee
Quail/mallard (oral LD₅₀): >2,250 mg/kg
Quail/mallard (dietary LC₅₀): >5,620 ppm

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by disposal.

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 container, do not reuse or refill this container. Refer to product label for specific container disposal instructions.

14. TRANSPORT INFORMATION

UN Number:	UN3082
Proper Shipping Name:	Environmentally hazardous substance, liquid, N.O.S. (contains flumioxazin)
Transport Hazard Class:	9
Packing Group:	III
Hazard Zone:	None
Marine Pollutant:	Yes (flumioxazin) ¹
Hazardous Substance RQ:	None
Labels / Placards:	US-DOT: Class 9 Environmentally Hazardous Substance ² IMDG, IATA: Class 9 Environmentally Hazardous Substance ³
Emergency Guide:	171 (NAERG – North American Emergency Response Guide)

¹ **Marine Pollutant Note:** Ground-only shipments are excluded from Marine Pollutant labeling requirements as per 49CFR§172.101 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.

³ **IMDG / IATA Note:** Not regulated for ground only shipments in single or inner packaging ≤ 1.3 gal. (5L).

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:



SAFETY DATA SHEET

Quali-Pro FlumiShield SC

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if inhaled or absorbed through skin. Causes moderate eye irritation.

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

ENVIRONMENTAL HAZARDS

If not used in accordance with directions on the label, this product can be toxic to non-target plants and aquatic invertebrates. This pesticide is toxic to plants.

PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow coming in contact with oxidizing agents. Hazardous chemical reaction may occur.

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

SARA Title III – Section 312 Threshold Planning Quantity

N/A

SARA Title III – Section 313 Reportable Ingredients

None

CERCLA –

Not listed

CALIFORNIA PROP 65 STATUS –

This product does not contain any chemical known to the state of California to cause cancer or reproductive harm.

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 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.

To the extent consistent with applicable law, neither Control Solutions, Inc. nor Seller be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.