

SECTION 1: Identification

1.1. Identification

Product name : VARSITY SC
Product code : 89167-101-89391

1.2. Recommended use and restrictions on use

1.3. Supplier

INNICTIS® CROP CARE, LLC
1880 Fall River Drive, Suite 100
Loveland, CO 80538
T 855-466-8428

1.4. Emergency telephone number

Emergency number : ChemTrec 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

| | |
|---|---|
| Reproductive toxicity, Category 2 | H361 Suspected of damaging fertility or the unborn child. |
| Specific target organ toxicity — Repeated exposure, Category 2 | H373 May cause damage to organs through prolonged or repeated exposure. |
| Hazardous to the aquatic environment — Acute Hazard, Category 1 | H400 Very toxic to aquatic life. |
| Hazardous to the aquatic environment — Chronic Hazard, Category 1 | H410 Very toxic to aquatic life with long lasting effects. |

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning

Hazard statements (GHS US) : H361 - Suspected of damaging fertility or the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure.
H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 - If exposed or concerned: Get medical attention
P314 - Get medical advice/attention if you feel unwell.
P391 - Collect spillage.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % |
|-----------------|-----------------------|-------------|
| flumioxazin | (CAS-No.) 103361-09-7 | 41.4 |
| 1,2-propanediol | (CAS-No.) 57-55-6 | PROPRIETARY |

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
- First-aid measures after skin contact : Wash skin with plenty of water.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Collect spillage.
- Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| |
|-------------------------------------|
| VARSLITY SC |
| No additional information available |
| flumioxazin (103361-09-7) |
| No additional information available |
| 1,2-propanediol (57-55-6) |
| No additional information available |

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Viscous liquid.
- Colour : Mixture contains one or more component(s) which have the following colour(s):
White Colourless
- Odour : Sour
- Odour threshold : No data available
- pH : 6.38
- Melting point : Not applicable
- Freezing point : No data available

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| | |
|---|---------------------|
| Boiling point | : No data available |
| Flash point | : 100 °C |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Flammability (solid, gas) | : Not applicable. |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : 9.6 lbs/gal |
| Density | : 1.15 g/ml |
| Solubility | : No data available |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : 487.2 mm²/s |
| Viscosity, dynamic | : No data available |
| Explosive limits | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|-----------------------------|------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

| Varsity SC | |
|----------------------------|-----------------------|
| LD50 oral rat | 5000 |
| LD50 dermal rat | 5000 |
| LC50 inhalation rat (mg/l) | 2.1 |
| ATE US (oral) | 5000 mg/kg bodyweight |
| ATE US (dermal) | 5000 mg/kg bodyweight |
| ATE US (vapours) | 2.1 mg/l/4h |
| ATE US (dust,mist) | 2.1 mg/l/4h |

| 1,2-propanediol (57-55-6) | |
|---------------------------|--|
| LD50 oral rat | 20000 mg/kg (Rat; Experimental value) |
| LD50 dermal rat | 22500 mg/kg (Rat; Experimental value) |
| LD50 dermal rabbit | 20800 mg/kg (Rabbit; Experimental value) |

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| | |
|-----------------------------------|--|
| Skin corrosion/irritation | : Not classified pH: 6.38 |
| Serious eye damage/irritation | : Not classified pH: 6.38 |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Suspected of damaging fertility or the unborn child. |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : May cause damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | : Not classified |
| Viscosity, kinematic | : 487.2 mm²/s |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

| flumioxazin (103361-09-7) | |
|---|--|
| LC50 fish 1 | 2.3 mg/l (EPA OPP 72-1, 96 h, Oncorhynchus mykiss, Flow-through system, Experimental value, GLP) |
| EC50 Daphnia 1 | 5.9 mg/l (EPA OPP 72-2, 48 h, Daphnia magna, Flow-through system, Experimental value, GLP) |
| 1,2-propanediol (57-55-6) | |
| LC50 fish 1 | 51400 mg/l (96 h; Pimephales promelas) |
| LC50 other aquatic organisms 1 | > 1000 mg/l (96 h) |
| EC50 Daphnia 1 | 34400 mg/l (48 h; Daphnia magna) |
| LC50 fish 2 | 51600 mg/l (96 h; Oncorhynchus mykiss) |
| TLM fish 1 | > 1000 ppm (96 h; Pisces) |
| TLM other aquatic organisms 1 | > 1000 ppm (96 h) |
| Threshold limit other aquatic organisms 1 | > 1000 mg/l (96 h) |
| Threshold limit algae 1 | 15000 mg/l (336 h; Selenastrum capricornutum) |
| Threshold limit algae 2 | < 5300 mg/l (336 h; Skeletonema costatum) |

12.2. Persistence and degradability

| flumioxazin (103361-09-7) | |
|---------------------------------|---|
| Persistence and degradability | Not readily biodegradable in water. |
| 1,2-propanediol (57-55-6) | |
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Not established. |
| Biochemical oxygen demand (BOD) | 0.96 – 1.08 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.63 g O ₂ /g substance |
| ThOD | 1.69 g O ₂ /g substance |
| BOD (% of ThOD) | 0.57 % ThOD |

12.3. Bioaccumulative potential

| flumioxazin (103361-09-7) | |
|---|--|
| Partition coefficient n-octanol/water (Log Pow) | 2.55 (Estimated value, 20 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |
| 1,2-propanediol (57-55-6) | |
| Partition coefficient n-octanol/water (Log Pow) | -1.41 – -0.3 |
| Bioaccumulative potential | Not bioaccumulative. Not established. |

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12.4. Mobility in soil

| flumioxazin (103361-09-7) | |
|--|---|
| Surface tension | 70.9 mN/m (20 °C, EU Method A.5: Surface tension) |
| Partition coefficient n-octanol/water (Log K _{oc}) | 3.15 (log K _{oc} , Other, Experimental value, GLP) |
| Ecology - soil | Low potential for mobility in soil. |
| 1,2-propanediol (57-55-6) | |
| Surface tension | 0.036 N/m (25 °C) |

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

Department of Transportation (DOT)

Not regulated in US for ground transport

Transportation of Dangerous Goods

Not regulated

Transport by sea

IMDG:

Containers less than or equal to 1.3 gal (5L) in strong outer packaging : Not Regulated

Containers greater than 1.3 gal (5L) or containers not in strong outer packaging: : Shipped internationally by vessel: UN3082, Environmentally hazardous substance, liquid, N.O.S. (Contains Flumioxazin), 9, PG III

Marine pollutant : Yes



Air transport

IATA:

Shipments by air:

UN3082, Environmentally hazardous substance, liquid, N.O.S. (Contains Flumioxazin), 9, PG III

SECTION 15: Regulatory information

15.1. US Federal regulations

Varsity SC

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

| | | |
|-------------|---------------------|-------|
| flumioxazin | CAS-No. 103361-09-7 | 41.4% |
|-------------|---------------------|-------|

FIFRA Labelling

EPA Registration Number 89167-101-89391

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. Following is the hazard information as required on the pesticide label.

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| FIFRA Labelling | |
|-------------------------------|---|
| FIFRA Precautionary Statement | Call a doctor if you feel unwell. Keep out of reach of children. |
| FIFRA Human Health Hazards | Harmful if inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with skin, eyes or clothing. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. |
| FIFRA Environmental Hazards | This product is toxic to non-target plants and aquatic invertebrates. DO NOT apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift or runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas. DO NOT apply where runoff is likely to occur. DO NOT apply when weather conditions favor drift from treated areas. DO NOT contaminate water when disposing of equipment washwaters or rinsate. This pesticide is toxic to plants and should be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures. Under some conditions this product may have a potential to run-off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, including no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use of vegetation filter strips along rivers, creeks, streams, wetlands or on the downhill side of fields where run-off could occur will minimize water run-off. |
| FIFRA Physical Hazard | DO NOT mix or allow coming in contact with oxidizing agent. Hazardous chemical reaction may occur. |

15.2. International regulations

CANADA

1,2-propanediol (57-55-6)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

VARSITY SC

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

| Component | State or local regulations |
|--------------------------|--|
| 1,2-propanediol(57-55-6) | U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-statements:

| | |
|------|--|
| H361 | Suspected of damaging fertility or the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.