

**DuPont™ BL3 Herbicide**

Version 2.0

Revision Date 12/01/2015

Ref. 130000143846

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : DuPont™ BL3 Herbicide  
Tradename/Synonym : Flumioxazin: 2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione

Product Use : Herbicide

Restrictions on use :  
Do not use product for anything outside of the above specified uses

Manufacturer/Supplier : DuPont  
974 Centre Road  
Wilmington, DE 19805, USA

Product Information : 1-800-441-7515 (outside the U.S. 1-302-774-1000)  
Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)  
Transport Emergency : CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887)

**SECTION 2. HAZARDS IDENTIFICATION**

**Product hazard category**  
Reproductive toxicity Category 2

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**Label content**

Pictogram

:



Signal word

: Warning

Hazardous warnings

: Suspected of damaging fertility or the unborn child.

Hazardous prevention  
measures

: Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Use personal protective equipment as required.  
IF exposed or concerned: Get medical advice/attention.  
Store locked up.  
Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

Information presented in Section 2 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Component   | CAS-No.     | Concentration |
|-------------|-------------|---------------|
| Flumioxazin | 103361-09-7 | 51 %          |


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|                         |          |           |
|-------------------------|----------|-----------|
| Sodium dodecyl sulphate | 151-21-3 | 1 - 5 %   |
| Other Ingredients       |          | 44 - 48 % |

**SECTION 4. FIRST AID MEASURES**

- General advice : Information presented in Section 4 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.  
For medical emergencies involving this product, call toll free 1-800-441-3637. See Label for Additional Precautions and Directions for Use.  
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- Inhalation : Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
- Skin contact : Take off all contaminated clothing immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- Eye contact : 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.
- Ingestion : Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Do not give anything by mouth to an unconscious person.
- Most important symptoms/effects, acute and delayed : No applicable data available.
- Protection of first-aiders : No applicable data available.

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Notes to physician : No applicable data available.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Water spray, Foam, Dry chemical, Carbon dioxide (CO<sub>2</sub>)
- Unsuitable extinguishing media : High volume water jet, (contamination risk)
- Specific hazards : No applicable data available.
- Special protective equipment for firefighters : Wear full protective clothing and self-contained breathing apparatus.
- Further information : (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers/tanks with water spray.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

- Safeguards (Personnel) : Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus. Use personal protective equipment.
- Environmental precautions : Prevent material from entering sewers, waterways, or low areas.
- Spill Cleanup : Sweep up and shovel into suitable containers for disposal.
- Accidental Release Measures : Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

**SECTION 7. HANDLING AND STORAGE**

- Handling (Personnel) : Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on



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- clean clothing.
- Handling (Physical Aspects) : Keep away from heat and sources of ignition.
- Dust explosion class : No applicable data available.
- Storage : Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in original container. Store in a cool, dry place. Not for use or storage in or around the home. Keep out of the reach of children.
- Storage period : No applicable data available.
- Storage temperature : No applicable data available.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering controls : Information presented in Section 8 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies. Ensure adequate ventilation.
- Personal protective equipment
- Respiratory protection : Where there is potential for airborne exposures in excess of applicable limits, wear approved respiratory protection with dust/mist cartridge.
- Eye protection : Wear protective eyewear to prevent contact with this substance.
- Skin and body protection : Applicators and other handlers must wear:  
 Long sleeved shirt and long pants  
 Chemical resistant gloves made of any waterproof material, such as polyethylene or polyvinyl chloride.  
 Shoes plus socks  
 PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:  
 Coveralls  
 Chemical resistant gloves made of any waterproof material  
 Shoes plus socks
- Protective measures : 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. Use this product in accordance with

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its label.

Exposure Guidelines  
Exposure Limit Values

Flumioxazin  
No applicable data available.

Sodium dodecyl sulphate  
No applicable data available.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance  
Physical state : solid  
Form : solid, water dispersible granules  
Color : light brown

Odor : slight

Odor threshold : No applicable data available.

pH : 5.4 at 25 °C (77 °F)

Melting point/range : No applicable data available.

Boiling point/boiling range : No applicable data available.

Flash point : No applicable data available.

Evaporation rate : No applicable data available.

Flammability (solid, gas) : No applicable data available.

Upper explosion limit : No applicable data available.

Lower explosion limit : No applicable data available.

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|                                        |                                 |
|----------------------------------------|---------------------------------|
| Vapour Pressure                        | : No applicable data available. |
| Vapour density                         | : No applicable data available. |
| Specific gravity (Relative density)    | : No applicable data available. |
| Bulk density                           | : 0.49 g/cm <sup>3</sup>        |
| Water solubility                       | : dispersible                   |
| Solubility(ies)                        | : No applicable data available. |
| Partition coefficient: n-octanol/water | : No applicable data available. |
| Auto-ignition temperature              | : No applicable data available. |
| Decomposition temperature              | : No applicable data available. |
| Viscosity, kinematic                   | : No applicable data available. |
| Viscosity, dynamic                     | : No applicable data available. |
| Oxidizing Substance                    | : The product is not oxidizing. |

**SECTION 10. STABILITY AND REACTIVITY**

|                                    |                                                         |
|------------------------------------|---------------------------------------------------------|
| Reactivity                         | : No applicable data available.                         |
| Chemical stability                 | : Stable at normal temperatures and storage conditions. |
| Possibility of hazardous reactions | : Polymerization will not occur.                        |
| Conditions to avoid                | : None reasonably foreseeable.                          |
| Incompatible materials             | : Strong oxidizing agents                               |
| Hazardous decomposition products   | : No applicable data available.                         |

**SECTION 11. TOXICOLOGICAL INFORMATION**

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|                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation 4 h LC50 | : | 0.969 mg/l , Rat<br>Information given is based on data obtained from similar substances.                                                                                                                                                                                                                                                                                                                       |
| Dermal LD50         | : | > 2,000 mg/kg , Rabbit<br>Information given is based on data obtained from similar substances.                                                                                                                                                                                                                                                                                                                 |
| Oral LD50           | : | > 5,000 mg/kg , Rat<br>Information given is based on data obtained from similar substances.                                                                                                                                                                                                                                                                                                                    |
| Skin irritation     | : | slight irritation, Rabbit<br>Minimal effects that do not meet the threshold for classification.<br>Information given is based on data obtained from similar substances.                                                                                                                                                                                                                                        |
| Eye irritation      | : | slight irritation, animals (unspecified species)<br>Minimal effects that do not meet the threshold for classification.<br>Information given is based on data obtained from similar substances.                                                                                                                                                                                                                 |
| Sensitisation       | : | Did not cause sensitisation on laboratory animals., animals (unspecified species)<br>Information given is based on data obtained from similar substances.                                                                                                                                                                                                                                                      |
| Further information | : | Information presented in this Section conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies. |

Flumioxazin

|                        |   |                                                                                                                                                                                                                             |
|------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Repeated dose toxicity | : | Ingestion<br>Rat<br>-<br>No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for classification., altered hematology, Organ weight changes |
|                        |   | Ingestion<br>Dog<br>-<br>No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for classification., altered hematology, Organ weight changes |
| Carcinogenicity        | : | Animal testing did not show any carcinogenic effects.                                                                                                                                                                       |





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- Mutagenicity : Animal testing did not show any mutagenic effects.  
Did not cause genetic damage in cultured bacterial cells.  
Genetic damage in cultured mammalian cells was observed in some laboratory tests but not in others.
- Reproductive toxicity : Some evidence of adverse effects on sexual function and fertility,  
and/or on development, based on animal experiments.
- Teratogenicity : Animal testing showed effects on embryo-foetal development at levels  
below those causing maternal toxicity.

### Sodium dodecyl sulphate

- Repeated dose toxicity : Oral  
Rat  
-  
NOAEL: > 430 mg/kg Method: OECD Test Guideline 408  
No toxicologically significant effects were found.

No toxicologically significant effects were found.

- Carcinogenicity : Not classifiable as a human carcinogen.
- Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic  
effects.  
Animal testing did not show any mutagenic effects.
- Reproductive toxicity : No toxicity to reproduction  
Animal testing showed no reproductive toxicity.
- Teratogenicity : Animal testing showed no developmental toxicity.

### Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.


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**SECTION 12. ECOLOGICAL INFORMATION**
**Aquatic Toxicity**
**Flumioxazin**

|           |   |                                                    |
|-----------|---|----------------------------------------------------|
| 96 h LC50 | : | Cyprinus carpio (Carp) > 1.3 mg/l                  |
| 72 h EC50 | : | Desmodesmus subspicatus (green algae) 0.0006 mg/l  |
| 72 h NOEC | : | Desmodesmus subspicatus (green algae) 0.00023 mg/l |
| 48 h EC50 | : | Daphnia magna (Water flea) 17 mg/l                 |

**Sodium dodecyl sulphate**

|            |   |                                                                      |
|------------|---|----------------------------------------------------------------------|
| 96 h LC50  | : | Pimephales promelas (fathead minnow) 29 mg/l OECD Test Guideline 203 |
| 72 h EbC50 | : | Desmodesmus subspicatus (green algae) 53 mg/l                        |
| 72 h ErC50 | : | Desmodesmus subspicatus (green algae) > 120 mg/l                     |
| 72 h NOEC  | : | Desmodesmus subspicatus (green algae) 30 mg/l                        |
| 48 h EC50  | : | Ceriodaphnia dubia (water flea) 5.55 mg/l                            |
| 42 d       | : | NOEC Pimephales promelas (fathead minnow) > 1.357 mg/l               |
| 21 d       | : | NOEC Daphnia magna (Water flea) 2 - 4 mg/l                           |

**Environmental Fate**
**Sodium dodecyl sulphate**

|                  |   |                                                       |
|------------------|---|-------------------------------------------------------|
| Biodegradability | : | 95 % OECD Test Guideline 301<br>Readily biodegradable |
|------------------|---|-------------------------------------------------------|

**Additional ecological information**

: 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 discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local


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sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Environmental Hazards: Run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply where/when conditions favour runoff. Do not apply where weather conditions favour drift from areas treated. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. See product label for additional application instructions relating to environmental precautions.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Waste disposal methods - Product : Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Waste disposal methods - Container : Container Refilling and Disposal:  
Refer to the product label for instructions.  
Do not transport if this container is damaged or leaking.

In the event of a major spill, fire or other emergency, call 1-800-441-3637 day or night.

Contaminated packaging : No applicable data available.

**SECTION 14. TRANSPORT INFORMATION**

|        |                      |                                                         |
|--------|----------------------|---------------------------------------------------------|
| IATA_C | UN number            | : 3077                                                  |
|        | Proper shipping name | : Environmentally hazardous substance, solid, n.o.s.    |
|        | Class                | : 9                                                     |
|        | Packing group        | : III                                                   |
|        | Labelling No.        | : 9MI                                                   |
| IMDG   | UN number            | : 3077                                                  |
|        | Proper shipping name | : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,<br>SOLID, N.O.S. |
|        | Class                | : 9                                                     |
|        | Packing group        | : III                                                   |
|        | Labelling No.        | : 9                                                     |


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**SECTION 15. REGULATORY INFORMATION**

Other regulations : This Safety Data Sheet is for a pesticide product registered by the US Environmental Protection Agency (USEPA) and various state regulatory agencies, and is therefore also subject to certain requirements under US and state pesticide laws, including the Federal Insecticide Fungicide and Rodenticide Act (FIFRA). These requirements differ from the classification criteria and hazard information required by OSHA for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is information determined by USEPA, and various states.

**CAUTION!**

Harmful if absorbed through the skin or inhaled. This product is toxic to: Causes moderate eye irritation. Aquatic invertebrates Avoid breathing dust or spray mist. Avoid contact with skin, eyes and clothing.

SARA 313 Regulated Chemical(s) : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

PA Right to Know Regulated Chemical(s) : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Kaolin

Title III hazard classification : Acute Health Hazard: Yes  
Chronic Health Hazard: Yes  
Fire: No  
Reactivity/Physical hazard: No  
Pressure: No

EPA Reg. No. : 352-915

**SECTION 16. OTHER INFORMATION**
**NFPA**

Health : 1



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Flammability : 1

Reactivity/Physical hazard : 0

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Revision Date : 12/01/2015

Contact person : DuPont Crop Protection, Wilmington, DE, 19805, Phone: 1-888-638-7668

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Significant change from previous version is denoted with a double bar.