

PRODUCT: TRIPLE C #593

SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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PRODUCT NAME: Triple C #593

CHEMICAL FAMILY: 2-Bromo-2-Nitropropane-1,3-Diol

MATERIAL USE: Biocide.

EMERGENCY PHONE NUMBER: (613)-996-6666

SECTION 02: HAZARDS IDENTIFICATION

This product is a biocide solution. Hazards are identified for all products in this solution that are above the minimum limits. Please see Section 15 for clarification on hazards identified for *Federal Insecticide, Fungicide, Rodenticide Act* (FIFRA).

SIGNAL WORD: WARNING (See Section 15).

HAZARD CLASSIFICATION: Acute Toxicity: Category - 4 (Harmful in contact with skin).
Acute Toxicity: Category - 4 (Harmful if swallowed).
Skin Irritation: Category - 2 (Causes skin irritation).
Eye Damage: Category - 1 (Risk of serious eye damage).
Aquatic Acute: Category - 1 (Very toxic to aquatic life).
Specific Target Organ Toxicity - Single Exposure (STOT SE): Category - 3 (May cause respiratory irritation).

SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT(S)	CAS #	WT. %
2-Bromo-2-nitropropane-1,3-diol (BNPD)	52-51-7	10 - 15

Definitions:

CAS - Chemical Abstract Service registry number.

WT. % - Percent Weight.

SECTION 04: FIRST AID MEASURES

IN CASE OF EYE CONTACT: Immediately irrigate with water for at least 15-20 minutes, remove contact lenses after the first 5 minutes and obtain medical attention.

IN CASE OF SKIN CONTACT: Remove contaminated clothing (wash clothing before reuse). Rinse (15-20 minutes), wash affected skin with water or soap and water. If irritation develops, obtain medical attention.

IF SWALLOWED: If swallowed, wash out mouth thoroughly with water; can sip water to drink. Do not induce vomiting unless advised to do so by medical staff. Obtain medical attention.

IF INHALED: Move person to fresh air. If issues arise, call 911, give artificial respiration. Obtain medical attention.

SECTION 05: FIRE FIGHTING MEASURES

FLAMMABILITY: Not Highly Flammable.

SUITABLE EXTINGUISHING MEDIA: Non-combustible.

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SECTION 05: FIRE FIGHTING MEASURES

FIRE FIGHTING PROCEDURES:	This product is 10% active ingredient dissolved in water. If evaporation occurs harmful vapors could be released during fire-fighting operations, wear self-contained breathing apparatus.
NOTE:	Stable at normal temperatures, but when heated above 140°C the solid decomposes exothermically liberating toxic hydrogen bromide and oxides of nitrogen and swells up to give a sticky, tarry mass which burns readily in a fire. The decomposition temperature is significantly lowered in the presence of inorganic or organic bases to an extent proportional to the amount of base present.

SECTION 06: ACCIDENTAL RELEASE MEASURES

FOR SMALL SPILL:	Mop up or absorb with an inert dry material and place in appropriate waste disposal container.
FOR LARGE SPILL:	It is important to control fluids and isolate the area of contamination. This solution is a registered biocide, utilize all safety measures and prevent the fluids from entering soil, ditches and natural waterways. Absorb with dry earth, sand or other non-combustible materials. Follow label instructions on the containers and all local, provincial and/or federal regulations for disposal.

SECTION 07: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:	Use proper Personal Protective Equipment (see Section 8). Work in well-ventilated area. Avoid open packaging. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
CONDITIONS FOR SAFE STORAGE:	Keep container tightly closed when not in use. Store in cool location and away from all foods and animal feeds. Avoid all sources of ignition: heat, sparks and open flame.

Follow all instructions on the label; this is a registered biocide in Canada and the United States (US).

United States of America (USA) - It is a violation of federal law to use this product in a manner inconsistent with its labelling.

CANADA - This pest control product is to be used only in accordance with the directions on the label. It is an offence under Pest Control Products Act to use this product in a way that is inconsistent with the direction on the label. The user assumes the risk to persons or property that arises from any such use of this product.

SECTION 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:	None required for normal use conditions.
SKIN AND BODY PROTECTION:	Chemical resistant gloves.
EYE/FACE PROTECTION:	Safety eye wear (Face shield, glasses or goggles).
OTHER/TYPE:	Chemical-resistant clothing to prevent prolonged skin contact, coveralls over long sleeves and long pants, socks and chemical resistant footwear.
GENERAL ADVICE:	Wash thoroughly with soap and water after handling. Discard clothing or other absorbent material that may have been heavily contaminated with the product's concentrate. Remove lightly contaminated clothing and wash separately from other laundry using detergent and hot water before re-use.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Clear to Yellow Liquid.
ODOUR:	Faint Odour.
ODOUR THRESHOLD:	No Data Available.
pH:	<7 Neat Product.
MELTING POINT/FREEZING POINT:	0°C.
BOILING POINT:	100°C.
FLASH POINT, METHOD:	Not Applicable.
EVAPORATION RATE:	Not Determined.

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SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

FLAMMABILITY (SOLIDS AND GASES):	No.
UPPER EXPLOSIVE LIMIT:	No Data Available.
LOWER EXPLOSIVE LIMIT:	No Data Available.
VAPOUR PRESSURE:	Not Determined.
VAPOUR DENSITY (AIR=1):	Not Determined.
SPECIFIC GRAVITY (WATER=1):	1.05 kg/L
SOLUBILITY IN WATER (% W/W):	100% Fresh Water.
AUTO IGNITION TEMPERATURE:	No Data Available.
PARTITION COEFFICIENT N-OCTANOL/WATER:	Not Determined.
DECOMPOSITION TEMPERATURE:	140°C.
VISCOSITY:	Not Determined.

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:	Will react with oxidizing materials.
CHEMICAL STABILITY:	Stable under normal conditions and recommended use.
POSSIBILITY OF HAZARDOUS REACTIONS:	Avoid maximum temperature of 90°C to prevent self-heating and rapid decomposition. May violently decompose at 140°C.
CONDITIONS TO AVOID:	Avoid all sources of ignition, heat sparks and open flame.
INCOMPATIBLE MATERIALS:	Avoid contact with bases, amines and oxidizing material. Corrosive to some metals.
HAZARDOUS DECOMPOSITION PRODUCTS:	Nitrogen oxides, bromine compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

ORAL	INHALATION	DERMAL
Type of Value: LD50.	Type of Value: LC50.	Type of Value: LD50.
Species: Rat (male/female).	Species: Rat (male/female).	Species: Rat (male/female).
Value: 305 mg/kg (Organization for Economic Co-operation and Development (OECD) 401). Data refer to diluted aqueous solution of substance.	Value: ≥ 0.588 mg/L. Exposure Time: 4 hours. An aerosol was tested.	Value: >2,000 mg/kg (OECD 402). Aqueous solution was tested. The European Union (EU) has classified this substance as 'harmful'.

IRRITATION / SKIN CORROSION:

SKIN	EYE	SENSITIZATION
Species: <i>Leporidae sp.</i> (Rabbit). Result: Severely irritating. Method: OECD 404.	Species: <i>Leporidae Sp.</i> (Rabbit). Result: Irritant. Method: Draize test. The EU has classified this Substance with 'Risk of Serious damage to eyes'.	Species: <i>Cavia porcellus</i> (Guinea pig). Result: Non-sensitizing. Method: Guinea Pig Maximization Test. Similar to OECD 406.

EXPERIENCE IN HUMANS: If this substance comes into contact with the skin of hypersensitive persons, sensitization might occur.
The whole of the information assessable provides no indication of a carcinogenic, reproductive or teratogenic effect.

STOT - Single Exposure - 3: May cause respiratory irritation (Scale 1 to 4 (1 most serious, 4 least serious)).

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SECTION 12: ECOLOGICAL INFORMATION

BIOACCUMULATIVE POTENTIAL:	Canadian Domestic Substances List (DSL): Bioaccumulative: No
TOXICITY DATA:	<p>Fish:</p> <p>Acute: <i>Oncorhynchus mykiss</i> (Rainbow trout) / LC50 (96 hours): 41.2 mg/L.</p> <p>Chronic: Rainbow trout / LC50 (49 days): 39.1 mg/L nominal concentration (OECD 210 Flow through).</p> <p>Aquatic Plants:</p> <p>Toxicity: EC50 (72 hours): 0.4 - 2.8 mg/L.</p> <p>Aquatic Invertebrates:</p> <p>Acute: EC50 (48 hours): 1.4 mg/L.</p> <p>Chronic: <i>Daphnia magna</i> (Water flea) / No Observed Effect Concentration (NOEC) (21 days): 0.27 mg/L (OECD 211 Flow through).</p> <p>The statement of the toxic effect relates to the analytically determined concentration.</p> <p>Microorganisms:</p> <p>Toxicity: Activated sludge/ EC20 (150 minutes): 2 mg/L nominal concentration (OECD 209 Aquatic).</p> <p>Other Terrestrial Non-mammals:</p> <p><i>Colinus virginianus</i> (Bobwhite Quail) - Toxicity: LC50 (5 days): 4,488 ppm.</p> <p>Soil Living Organisms:</p> <p><i>Eisenia foetida</i> (Redworm) Toxicity: LC50 (14 days): >500 mg/g (OECD 207 artificial soil).</p> <p>The details of the toxic effect relate to the nominal concentration.</p> <p>Other Soil Dwelling Microorganisms:</p> <p>Toxicity: EC (28 days): 25 mg/kg (OECD 216) The details of the toxic effect relate to the nominal concentration.</p>
BIOLOGICAL/ABIOLICAL DEGRADATION:	<ul style="list-style-type: none"> • Test method: OECD 302B; ISO 9888; 88/302/ European Economic Community (EEC), part C. • Method of analysis: Diesel Oxidation Catalyst (DOC) reduction. • Degree of elimination: 50%. • Evaluation: Moderately/partially eliminated from water. The product can be degraded abiotically, e.g. chemical or photolytic processes.
ENVIRONMENTAL MOBILITY:	Transport between environmental compartments: Adsorption/water – soil KOC: 5.
OTHER ADVERSE EFFECTS:	Do not allow substance to enter soil, waterways or waste water channels.
FIFRA:	This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with proper permitting, see product label.

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:	Must be disposed of or incinerated in accordance with local regulations.
PACKAGING:	The packaging must not be re-used. Follow guidelines on label.
FIFRA:	Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your regulating Federal / Provincial and or local Pesticide or Environmental Control Agency; or the Hazardous Waste representative at the nearest Federal and or Provincial regulating Environmental Authority / Environmental Protection Agency (EPA) Regional Office for guidance.

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SECTION 14: TRANSPORT INFORMATION

Transportation of Dangerous Goods (TDG):	Not Regulated.
United States (US) Department of Transportation (DOT):	Not Regulated.
UNITED NATIONS (UN) NUMBER:	Not Applicable.
TRANSPORT HAZARD CLASS:	Not Applicable.
PACKING GROUP:	Not Applicable.
PROPER SHIPPING NAME:	Not Applicable.
SPECIAL SHIPPING INSTRUCTIONS:	None.

SECTION 15: REGULATORY INFORMATION

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) CLASSIFICATION:	Not Applicable. This Product Is Regulated By The <i>Pest Controls Product Act</i> , Agriculture Canada.
PEST CONTROL PRODUCTS ACT:	Registration Number 29314.
HAZARDOUS PRODUCT REGULATIONS (HPR) COMPLIANCE:	This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.
CANADIAN DSL:	All components are listed.
US FEDERAL REGULATIONS:	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR (Code of Federal Regulations) 1910.1200.
<i>Superfund Amendments and Reauthorization Act (SARA):</i>	SARA 311 and 312 Hazard Categories: Acute, Chronic.
Occupational Safety and Health Administration (OSHA) HazCom Standard Rating:	Acute target organ effects reported, skin irritant, eye irritant, skin sensitizer, toxic by ingestion.
<i>US Toxic Substances Control Act (TSCA):</i>	All components are listed.
US STATE OR LOCAL REGULATIONS:	
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):	This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.
FIFRA:	This chemical is a pesticide product registered by the US EPA 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.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Remove contaminated clothing and wash before re-use.

SECTION 16: OTHER INFORMATION

PREPARED BY:	T. Donovan & Son (1997) Ltd.
PREPARATION DATE:	May 2018.

DISCLAIMER:

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. Regulatory requirements are subject to change and may differ between various locations. The information given is designed only as 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.