

PRODUCT: TRIPLE C # 576

SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: T DONOVAN & SON (1997) LTD.
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PRODUCT NAME: Triple C # 576.

CHEMICAL FAMILY: Biopenetrant/Dispersant.

MATERIAL USE: Corrosion Inhibitor / Scale Inhibitor.

EMERGENCY PHONE NUMBER: (613)-996-6666

SECTION 02: HAZARDS IDENTIFICATION



SIGNAL WORD: WARNING.

HAZARD CLASSIFICATION: Eye Irritation - Category 2B.
Skin Sensitization - Category 1.

HAZARD STATEMENT: **H320:** Causes eye irritation.
H317: May cause an allergic skin reaction.

PRECAUTIONARY STATEMENT: **P280:** Wear protective gloves.
P261: Avoid breathing vapor.
P264: Wash hands thoroughly after handling.
P272: Contaminated work clothing should not be allowed out of the workplace.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P362: Take off contaminated clothing and wash it before reuse.
P332 + P313: If skin irritation or rash occurs: Get medical attention.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313: If eye irritation persists: Get medical attention.
P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

SUPPLEMENTAL LABEL ELEMENTS: Percentage of the mixture consisting of ingredient(s) of unknown toxicity:

- Oral Toxicity: 17.4%.
- Dermal Toxicity: 21.9%.
- Inhalation Toxicity: 44.4%.

OTHER HAZARDS: None Known.

SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT(S)	CAS #	WT. %
Amides, Tall-Oil Fatty, N,N-Di-Me	68308-74-7	20
Nitrilotrimethylenetris (Phosphonic Acid)	6419-19-8	2.5
Citric Acid	77-92-9	2.5
2-Propenoic Acid, Homopolymer, Sodium Salt	9003-04-7	1.974 - 2.058
Malic Acid	110-16-7	<0.14
Notes: There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.		Definitions: CAS - Chemical Abstract Service registry number. WT. % - Percent Weight.

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SECTION 04: FIRST AID MEASURES

IN CASE OF EYE CONTACT:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
IF INHALED:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
IN CASE OF SKIN CONTACT:	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
IF SWALLOWED:	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
THE MOST IMPORTANT SYMPTOMS AND EFFECTS, WHETHER ACUTE OR DELAYED:	Eye Contact: Causes eye irritation. Inhalation: No known significant effects or critical hazards. Skin Contact: May cause an allergic skin reaction. Ingestion: No known significant effects or critical hazards.
OVER-EXPOSURE SIGNS/SYMPTOMS:	Eye Contact: Adverse symptoms may include the following: irritation, watering, and redness. Inhalation: No specific data. Skin Contact: Adverse symptoms may include the following: irritation, and redness. Ingestion: No specific data.
NOTES TO PHYSICIAN:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
SPECIFIC TREATMENTS:	No specific treatment.
PROTECTION OF FIRST-AIDERS:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

SECTION 05: FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:	Use an extinguishing agent suitable for the surrounding fire.
HAZARDOUS THERMAL DECOMBUSTION PRODUCTS:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides, phosphorus oxides, and metal oxide/oxides.
SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:	In a fire or if heated, a pressure increase will occur, and the container may burst.

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SECTION 05: FIRE FIGHTING MEASURES

SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 06: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:	
For Non-Emergency Personnel:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For Emergency Responders:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
ENVIRONMENTAL PRECAUTIONS:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP:	<p>Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.</p> <p>Large spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.</p>

SECTION 07: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
ADVICE ON GENERAL OCCUPATIONAL HYGIENE:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
CONDITIONS FOR SAFE STORAGE:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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SECTION 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT(S)	AIHA		OSHA PEL		NIOSH REL
	TWA	WEEL	TWA	STEL	
Nitritotrimethylenetris (Phosphonic Acid)	-	10 mg/m ³ 8 hours (United States, 10/2011).	-	-	-

Definitions:

AIHA - American Industrial Hygiene Association.
 NIOSH - National Institute for Occupational Safety and Health.
 OSHA - Occupational Safety and Health Administration.
 PEL - Permissible Exposure Limit.

RELs - Recommended Exposure Limits.
 STEL - Short-term Exposure Limit.
 TWA - Time Weighted Average.
 WEEL - Workplace Environmental Exposure Levels.

ENGINEERING CONTROLS:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
ENVIRONMENTAL EXPOSURE CONTROLS:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
GENERAL HYGIENE MEASURES:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
EYE/FACE PROTECTION:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
SKIN AND BODY PROTECTION:	<p>Hand Protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.</p> <p>Body Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.</p> <p>Other Skin Protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.</p>
RESPIRATORY PROTECTION:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Golden Yellow, Slightly Turbid Liquid.
ODOUR:	Slight Oily.
ODOUR THRESHOLD:	No Data Available.
PH:	8 to 9.5.
MELTING POINT:	0°C (32°F)
BOILING POINT:	No Data Available.
FLASH POINT (C), METHOD:	Closed Cup: >100°C (>212°F).

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SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

EVAPORATION RATE:	No Data Available.
FLAMMABILITY (SOLIDS AND GASES):	No Data Available.
UPPER EXPLOSIVE (FLAMMABLE) LIMIT (% BY VOL):	No Data Available.
LOWER EXPLOSIVE (FLAMMABLE) LIMIT (% BY VOL):	No Data Available.
VAPOUR PRESSURE:	No Data Available.
VAPOUR DENSITY (AIR=1):	No Data Available.
SPECIFIC GRAVITY (WATER=1):	1.12
SOLUBILITY IN WATER (% W/W):	Soluble in the following materials: cold water and hot water.
AUTO IGNITION TEMPERATURE:	No Data Available.
PARTITION COEFFICIENT N-OCTANOL/WATER:	No Data Available.
DECOMPOSITION TEMPERATURE:	No Data Available.
VISCOSITY:	No Data Available.

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:	No specific test data related to reactivity available for this product or its ingredients.
CHEMICAL STABILITY:	The product is stable.
POSSIBILITY OF HAZARDOUS REACTIONS:	Under normal conditions of storage and use, hazardous reactions will not occur.
CONDITIONS TO AVOID:	No Specific Data.
INCOMPATIBLE MATERIALS:	No Specific Data.
HAZARDOUS DECOMPOSITION PRODUCTS:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

INGREDIENT(S)	TEST	SPECIES	DOSE	EXPOSURE
Amides, Tall-Oil Fatty, N,N-Di- Me	LD50 Dermal	<i>Leporidae sp.</i> (Rabbit)	8000 mg/kg	-
Nitrilotrimethylenetris (Phosphonic Acid)	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit	>6310 mg/kg	-
	LD50 Oral	Rat	2100 mg/kg	-
	LD50 Oral	Rat	2100 mg/kg	-
Citric Acid	LD50 Oral	Mouse	5040 mg/kg	-
2-Propenoic Acid, Homopolymer, Sodium Salt	LD50 Oral	Rat	3 g/kg	-
	LD50 Oral	Rat	>8250 mg/kg	-

IRRITATION/CORROSION:

INGREDIENT(S)	RESULT	SPECIES	EXPOSURE
Nitrilotrimethylenetris (Phosphonic Acid)	Eyes - Moderate Irritant	Rabbit	100 mg
Citric Acid	Eyes - Severe Irritant	Rabbit	24 hours 750 mg
	Skin - Mild Irritant	Rabbit	24 hours 500 mg
	Skin - Moderate Irritant	Rabbit	0.5 mL
2-Propenoic Acid, Homopolymer, Sodium Salt	Eyes - Moderate Irritant	Rabbit	2 mg
	Eyes - Severe Irritant	Rabbit	2 minutes 1%
SADA 2	Eyes - Mild Irritant	Mammal - Species Unspecified	-

SENSITIZATION:

INGREDIENT(S)	ROUTE OF EXPOSURE	SPECIES	RESULT
Amides, Tall-Oil Fatty, N,N-Di-Me	Skin	<i>Cavia porcellus</i> (Guinea pig)	Sensitizing
Maleic Acid	Skin	Guinea pig	Sensitizing

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SECTION 11: TOXICOLOGICAL INFORMATION

GERM CELL MUTAGENICITY:	No Data Available.
CARCINOGENICITY:	No Data Available.
REPRODUCTIVE TOXICITY:	No Data Available.
SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE:	No Data Available.
STOT - REPEAT EXPOSURE:	No Data Available.
ROUTES OF EXPOSURE:	No Data Available.
ASPIRATION HAZARD:	No Data Available.
POTENTIAL HEALTH EFFECTS:	Eye Contact: Causes eye irritation. Inhalation: No known significant effects or critical hazards. Skin Contact: May cause an allergic skin reaction. Ingestion: No known significant effects or critical hazards.
SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS:	Eye Contact: Adverse symptoms may include the following: irritation, watering, and redness. Inhalation: No specific data. Skin Contact: Adverse symptoms may include the following: irritation, and redness. Ingestion: No specific data.
DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT AND LONG-TERM EXPOSURE:	No Data Available.
POTENTIAL CHRONIC HEALTH EFFECTS:	General: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
NUMERICAL MEASURES OF TOXICITY Acute Toxicity Estimates (ATE):	Route: Oral - Acute Toxicity Estimate (ATE) Value: 40814.1 mg/kg.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:

INGREDIENT(S)	RESULT	SPECIES	EXPOSURE
Citric Acid	Acute LC50 160000 µg/L Marine water	Crustaceans - <i>Carcinus maenas</i> (European green crab) - Adult	48 hours
Maleic Acid	Acute EC50 316200 µg/L Fresh Water	Daphnia - <i>Daphnia magna</i> (Water Flea) - Larvae	48 hours
	Acute LC50 5000 µg/L Fresh Water	Fish - <i>Pimephales promelas</i> (Fathead minnow)	96 hours

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should always comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way.
PACKAGING:	Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

Transportation of Dangerous Goods (TDG):	Not Regulated.
UNITED NATIONS (UN) NUMBER:	Not Applicable.
TRANSPORT HAZARD CLASS:	Not Applicable.

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SECTION 14: TRANSPORT INFORMATION

PACKING GROUP: Not Applicable.
PROPER SHIPPING NAME: Not Applicable.
SPECIAL PRECAUTIONS FOR USER: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: REGULATORY INFORMATION

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) CLASSIFICATION: D2B.
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 Domestic Substance List (DSL): All components are listed.

SECTION 16: OTHER INFORMATION

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS) Hazard ID:

HEALTH	2
FLAMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	X

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; *-Chronic health effect

National Fire Protection Association (NFPA):



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

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.