

PRODUCT: TRIPLE C #575

SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: T. DONOVAN & SON (1997) LTD.
700 WILSON STREET
SAINT JOHN, NEW BRUNSWICK
CANADA E2M 3V2
TOLL FREE: 1-888-799-2645 / LOCAL (506) 642-1500

PRODUCT NAME: Triple C #575

CHEMICAL FORMULA: C₂H₅O₆P

CHEMICAL FAMILY: Organic Corrosion Inhibitor.

MATERIAL USE: Brine Inhibitor.

EMERGENCY PHONE NUMBER: (613)-996-6666

SECTION 02: HAZARDS IDENTIFICATION



SIGNAL WORD: DANGER.

HAZARD CLASSIFICATION: Acute Toxicity - Category 4.
Skin Corrosion - Category 1B.
Skin Sensitivity - Category 1
Specific Target Organ Toxicity (STOT) - Single Exposure - Category 2.

HAZARD STATEMENT: **H302:** Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H373: May cause damage to organs through prolonged or repeated exposure.

PRECAUTIONARY STATEMENT: **P260:** Do not breathe dust/fume/gas/mist/vapours/spray.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor/physician.
P314: Get medical advice/attention if you feel unwell.
P321: Specific treatment (see information on this label).
P330: Rinse mouth.
P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.
P363: Wash contaminated clothing before reuse.
P405: Store locked up.
P501: Dispose of contents/container according to all applicable regulations.

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SECTION 02: HAZARDS IDENTIFICATION**OTHER HAZARDS:**

Human Health: Corrosive to skin and eyes.
Inhalation: May cause irritation to the respiratory system.
Ingestion: May cause discomfort if swallowed. May cause stomach pain or vomiting.
Skin Contact: Causes burns. May cause sensitization by skin contact.
Eye Contact: Risk of serious damage to eyes.
Health Warnings: This chemical may cause skin/eye irritation and burns (corrosive).
Medical Symptoms: Eye contact may cause: Visual disturbances, incl. blurred vision.
Skin contact may cause: Severe skin irritation.
Other Health Effects: This substance has no evidence of carcinogenic properties.

SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT(S)	CAS #	WT. %
Hydroxyphosphonoacetic Acid	23783-26-8	10 - 15
Phosphoric Acid	7664-38-2	1 - 5
Phosphorous Acid	10294-56-1	1 - 5

Definitions:

CAS - Chemical Abstract Service registry number.

WT. % - Percent Weight.

SECTION 04: FIRST AID MEASURES**IF INHALED:**

Remove victim immediately from source of exposure. Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. Get medical attention if any discomfort continues.

IF SWALLOWED:

DO NOT INDUCE VOMITING! Rinse mouth thoroughly. Never give liquid to an unconscious person. Get medical attention if any discomfort continues.

IN CASE OF SKIN CONTACT:

Immediately remove contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

IN CASE OF EYE CONTACT:

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention immediately. Continue to rinse.

THE MOST IMPORTANT SYMPTOMS AND EFFECTS, WHETHER ACUTE OR DELAYED:

Inhalation: Severe irritation in nose and throat.
Ingestion: May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.
Skin Contact: May cause serious chemical burns to the skin. Mild dermatitis, allergic skin rash.
Eye Contact: May cause blurred vision and serious eye damage. Profuse watering of the eyes.

NOTES TO THE PHYSICIAN:

Treat Symptomatically.

SECTION 05: FIRE FIGHTING MEASURES**SUITABLE EXTINGUISHING MEDIA:**

Use: Water spray, fog or mist. Foam, carbon dioxide or dry powder.

UNUSUAL FIRE & EXPLOSION HAZARDS:

Fire causes formation of toxic gases.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:

Fire creates: Toxic gases/vapors/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂). Oxides of: Phosphorus.

SPECIAL FIRE FIGHTING PROCEDURES:

Move container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS:

Leave danger zone immediately. Self contained breathing apparatus and full protective clothing must be worn in case of fire.

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SECTION 06: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:	Follow precautions for safe handling described in this material safety data sheet. For personal protection, see Section 8.
ENVIRONMENTAL PRECAUTIONS:	Avoid release to the environment. To prevent release, place container with damaged side up. The product should not be dumped in nature but collected and delivered according to agreement with the local authorities.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP:	Should be prevented from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Collect and reclaim or dispose in sealed containers in licensed waste. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.
REFERENCE TO OTHER SECTIONS:	For waste disposal, see Section 13.

SECTION 07: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:	Avoid spilling, skin and eye contact. Observe good chemical hygiene practices. Contaminated clothing and shoes must be discarded.
CONDITIONS FOR SAFE STORAGE:	Storage Class: Corrosive storage. Store in tightly closed original container in a dry and cool place. Store at temperature below 50°C. Do not store for extended periods below freezing point or in direct sunlight. IF FROZEN: once fully thawed, agitate container vigorously to ensure the product is homogeneous. Store separated from: Alkalis. Cyanides. Reducing Agents. Do NOT use container made of: Carbon steel.

SECTION 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT(S)	ACGIH TLV		OSHA PEL		IDLH	NIOSH REL
	TWA	STEL	TWA	STEL		
Phosphoric Acid	1 mg/m ³	-	1 mg/m ³	-	1000 mg/m ³	-

Definitions:

- ACGIH - American Conference of Governmental Industrial Hygienists.
- IDLH - Immediately Dangerous to Life or Health.
- 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.
- TLV - Threshold Limit Value.
- TWA - Time Weighted Average.

PROCESS CONDITIONS:	Provide eyewash, quick drench.
ENGINEERING CONTROLS:	Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.
RESPIRATORY PROTECTION:	No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Occupational Exposure Limit.
HAND/SKIN AND BODY PROTECTION:	Hand Protection: Selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Use protective gloves made of: Neoprene, nitrile, polyethylene or polyvinyl chloride (PVC). Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Skin Protection: Wear apron or protective clothing in case of contact. Wear appropriate clothing to prevent repeated or prolonged skin contact.
EYE/FACE PROTECTION:	Wear approved safety goggles. Use face shield in case of splash risk.
HYGIENE MEASURES:	No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Dark Brown Liquid.
ODOUR:	Slight Odour.
ODOUR THRESHOLD:	Not Available.
PH:	1 - 2

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SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

FREEZING POINT:	<-5°C.
BOILING POINT:	101 - 103°C @ 760 mm Hg
FLASH POINT (C), METHOD:	Not Available.
EVAPORATION RATE:	No Data Available.
FLAMMABILITY (SOLIDS AND GASES):	Not Applicable.
UPPER FLAMMABLE LIMIT (% BY VOL):	Not Applicable.
LOWER FLAMMABLE LIMIT (% BY VOL):	Not Applicable.
VAPOUR PRESSURE:	No Data Available.
VAPOUR DENSITY (AIR=1):	No Data Available.
SPECIFIC GRAVITY (WATER=1):	1.05 @ 20°C.
SOLUBILITY IN WATER (% W/W):	Miscible with Water.
AUTO IGNITION TEMPERATURE:	No Data Available.
PARTITION COEFFICIENT N-OCTANOL/WATER:	Log Pow < 0.
DECOMPOSITION TEMPERATURE:	>160°C.
VISCOSITY:	max 75 cP @ 25 °C.

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:	Reacts with alkalis and generates heat.
CHEMICAL STABILITY:	Stable under normal temperature conditions and recommended use.
HAZARDOUS POLYMERISATION:	Will not Polymerize.
CONDITIONS TO AVOID:	Avoid excessive heat for prolonged periods of time.
INCOMPATIBLE MATERIALS:	Strong alkalis. Strong reducing agents.
HAZARDOUS DECOMPOSITION PRODUCTS:	Toxic gases/vapors/fumes of: Carbon dioxide (CO ₂). Carbon monoxide (CO). Oxides of: Phosphorus.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENT(S)	LC50	LD50
Phosphoric Acid	-	2754 mg/kg Rat

CARCINOGENICITY: This substance has no evidence of carcinogenic properties.

SECTION 12: ECOLOGICAL INFORMATION

PERSISTENCE AND DEGRADABILITY:	The product is expected to be biodegradable.
BIOACCUMULATIVE POTENTIAL:	The product does not contain any substances expected to be bio-accumulating.
BIODEGRADATION:	Degradation: 93%. Water Degradation: 93% 28 Days.
TOXICITY (FISH):	LC50 96 hours 380 mg/L <i>Onchorhynchus mykiss</i> (Rainbow trout). LC50 96 hours > 820 mg/L <i>Brachydanio rerio</i> (Zebra Fish).
TOXICITY (AQUATIC INVERTEBRATES):	EC50 48 hours 140 mg/L <i>Daphnia magna</i> (Water flea).
TOXICITY AQUATIC PLANTS):	IC50 72 hours 30 mg/L Freshwater algae.
MOBILITY IN SOIL:	The product is miscible with water. May spread in water systems.

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SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:	<ul style="list-style-type: none"> • When handling waste, consideration should be made to the safety precautions applying to handling of the product. • Absorb in vermiculite or dry sand and dispose of at a licenced hazardous waste collection point. • Liquid material should be incinerated. Material absorbed onto sand or earth should be disposed of as solid waste in accordance with local, Provincial, Federal and Regional regulations.
PACKAGING:	Empty packaging may contain product residues and due consideration should be given prior to disposal.

SECTION 14: TRANSPORT INFORMATION

Transportation of Dangerous Goods (TDG):	Regulated.
United States (US) Department of Transportation (DOT):	Regulated.
International Maritime Dangerous Goods (IMDG):	Regulated.
International Air Transport Association (IATA):	Regulated.
UNITED NATIONS (UN) NUMBER:	3265.
TRANSPORT HAZARD CLASS:	8
PACKING GROUP:	II
PROPER SHIPPING NAME:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Contains Hydroxyphosphonoacetic Acid)
ENVIRONMENTALLY HAZARDOUS SUBSTANCE/MARINE POLLUTANT:	No.
REGULATION SPECIFIC INFORMATION:	
In Accordance with IMDG:	IMDG Code Segregation Group: 1. Acids. Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS Guide): F-A, S-B

SECTION 15: REGULATORY INFORMATION

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) CLASSIFICATION:	E, 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 SUBSTANCES LIST (DSL)/ NON-DOMESTIC SUBSTANCES LIST:	All ingredients are listed or exempt.
UNITED STATES (US) FEDERAL REGULATIONS:	
Superfund Amendments and Reauthorization Act (SARA):	SARA 313 Emission Reporting: Phosphoric Acid 3% is Listed. SARA (311/312) Hazard Categories - Acute.
OSHA Hazcom Standard Rating:	This Product is Hazardous under the OSHA Hazard Communication Standard.
US Toxic Substances Control Act (TSCA):	Listed.

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SECTION 15: REGULATORY INFORMATION

US STATE OR LOCAL REGULATIONS: California Proposition 65 Carcinogens and Reproductive Toxins: Not Listed.
Ingredient PHOSPHORIC ACID 3% is listed in the following State's Regulations:
Massachusetts "Right to Know".
Rhode Island "Right to Know".
Minnesota "Right to Know".
New Jersey "Right to Know".
Pennsylvania "Right to Know".
PHOSPHOROUS ACID is listed on New Jersey "Right to Know" Regulations.

SECTION 16: OTHER INFORMATION

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS) Hazard ID:

HEALTH	3
FLAMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	C

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.