

## Safety Data Sheet (SDS)

### SECTION 1: IDENTIFICATION

MANUFACTURER/DISTRIBUTOR: Rainbow Technology Corporation (800)637-6047  
**EMERGENCY PHONE (24 HRS.): Chem-Tel Inc. (800) 255-3924**  
PRODUCT NAME: **Rainbow Canadian Formula De-icer** PRODUCT NUMBER: **4060**  
CAS NUMBER: Mixture See Section 3.  
PRODUCT FAMILY: Deicer  
**NFPA RATING AS AN AEROSOL:** Level 3  
Issue Date: October 7, 2015 Replaces SDS dated: April 1, 2014

### SECTION 2: HAZARD IDENTIFICATION

#### EMERGENCY OVERVIEW:

**DANGER: EXTREMELY FLAMMABLE AEROSOL. PRESSURIZED CONTAINER MAY BURST IF HEATED. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED.**

**OSHA/ HCS Status:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture:** **EXTREMELY FLAMMABLE AEROSOL—CATEGORY 1**  
Acute Toxicity (Oral) Category 3  
Acute Toxicity (Inhalation) Category 3  
Acute Toxicity (Dermal) Category 3  
Specific target organ toxicity-single exposure (Category 1)

#### Pictograms:



**Signal Word:** **DANGER**  
**Hazard Statement:** **Extremely Flammable aerosol. Pressurized container: May burst if heated.**

**This contains highly flammable liquids and vapors. Toxic if swallowed, in contact with skin, or if inhaled. Causes damage to organs. May be fatal if swallowed and enters airways.**

#### Precautionary Statements:

Read entire label before use. Keep out of reach of children. If medical advice is needed, have Product container of label at hand.  
Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.  
Protect from sunlight. Do not expose to temperatures exceeding 50C/122°F.  
Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.  
Store and use in a well-ventilated place. Keep cool.  
Dispose of contents and container in accordance with all local, regional, national and international regulations.

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## SECTION 3: COMPOSITION

COMPONENT NAME(S)	CAS NO	CONCENTRATION (%)
Methanol	67-56-1	85-90
Ethylene Glycol	107-21-1	1-5
Propylene Glycol	57-55-6	1-5
Carbon Dioxide	124-38-9	1-5

## SECTION 4: FIRST AID MEASURES

**Take proper precautions to ensure your own health and safety before attempting rescue or providing first aid. For more specific information, refer to Exposure Controls and Personal Protection in Section 8 of this MSDS.**

If medical advice is needed, have product container or label at hand.

**IF SWALLOWED:** Immediately call a **POISON CENTER/doctor**. Do **NOT** induce vomiting.

**IF IN EYES:** Rinse cautiously with water for several minutes.

**IF INHALED:** Increase fresh air circulation or leave area.

**IF ON SKIN:** Wash skin with soap and water.

**NOTE to PHSYCIAN:** If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

## SECTION 5: FIRE FIGHTING MEASURES

**NFPA Flammability Classification:** LEVEL 3 Aerosol

**FLASH POINT:** Not Determined      **FLAMMABLE LIMITS:** UEL 36 %    LEL 2.6 %

**EXTINGUISHING MEDIUM:** AS APPROPRIATE FOR COMBUSTIBLES IN AREA.

**SPECIAL FIREFIGHTING PROCEDURES:** Wear self-contained breathing apparatus when fighting fires containing or around this product. Shut off all sources of ignition, if possible. Keep exposed containers cool with water spray to prevent rupture. Evacuate all non-trained personnel. Wear full protective clothing, including helmet. Ventilate area. Contain spill and dike, if possible. For leaks or spills water spray can be used to disperse any flammable vapors that may become concentrated or form in poorly ventilated areas and to protect personnel attempting to stop the leak.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Firefighters should wear SCBA's in a positive pressure mode with full face shield. Vapors are heavier than air and may travel long distances and accumulate in low areas or spread along ground from handling site. Eliminate all sources of ignition. Never use welding or cutting torch on or near this product because even just residue can ignite explosively.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Take proper precautions to ensure your own health and safety before attempting spill control or clean-up.**

Avoid contact with eyes. Ventilate area-especially low places where heavy vapors might collect. Extinguish all ignition sources. For small spills/leaks mop, wipe, or soak up on an inorganic material immediately. Remove to vent hood or outside. For large spills/leaks evacuate area, contain spill (dike area), and transfer contained liquid to a DOT approved container for disposal. Keep out of water supply. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personnel protective equipment.

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## SECTION 7: HANDLING AND STORAGE

Store in tightly sealed containers. Keep away from heat, sparks & open flame. Do not get in eyes, on skin or clothing. Do not breathe vapor, mist or gas. Do not store or transfer to an unmarked container. Do not throw empty containers in trash compactor. Do not store in direct sun. Store containers below 120°F. Read label before using.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Control airborne concentrations below the exposure limits see below. Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Lethal concentrations may exist in areas with poor ventilation.

**PERSONAL PROTECTIVE EQUIPMENT:** Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations. Minimum requirements are: SAFETY GLASSES and GLOVES.

**RESPIRATORY PROTECTION (SPECIFY TYPE):** If workplace exposure limit(s) of product or any component is exceeded (see Section two), a NIOSH approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH respirators (negative pressure type) under specified conditions (see your safety equipment supplier). Engineering or administrative controls should be implemented to reduce exposure.

**HAND PROTECTION:** For brief contact, no precautions should be needed. When prolonged or frequently repeated contact could occur, use protective gloves such as; polyvinyl alcohol or polyethylene.

**EYE PROTECTION:** Chemical splash goggles in compliance with OSHA regulations are advised; OSHA regulations also permit other type of safety glasses (consult your safety equipment supplier)

**BODY PROTECTION:** To prevent repeated or prolonged skin contact, use protective clothing impervious to this product. Selection of specific items such as gloves, boots, apron, or full body suit will depend on operation.

### OCCUPATIONAL EXPOSURE GUIDELINES:

Substance	Applicable Workplace Exposure Levels		
	OSHA PEL	ACGIH	
Methanol	200 ppm	250 ppm	
Ethylene Glycol	100 ppm	100 ppm	
Propylene Glycol	NE	NE	10 mg/m3 (US WEEL TWA)
Carbon Dioxide	5000 ppm	5000 ppm	

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Aerosol	COLOR: Clear	ODOR: Alcohol
SPECIFIC GRAVITY: 0.78-0.85 (Water =1)	pH: N/A	VAPOR DENSITY (Air =1): greater than
BOILING POINT RANGE: N/D	MELTING POINT /FREEZING POINT: N/D	
VAPOR PRESSURE (mmHg or psig @70°F): 80-110 psig		VISCOSITY (cps @ 70°F) N/D
SOLUBILITY IN WATER % BY WT.:~ 97%		
VOLATILE ORGANIC COMPOUNDS (VOCs) Content: 86%		

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### SECTION 10: STABILITY AND REACTIVITY

**STABILITY:** Stable, avoid open flames, welding arcs or other high temperature sources which induce thermal decomposition and direct sunlight.

**INCOMPATIBILITY:** Acids, acid chlorides, acid anhydrides, oxidizing agents, alkali metals, reducing agents, strong bases, aluminum, and aldehydes.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon dioxide, and carbon monoxide, may form upon burning.

**HAZARDOUS POLYMERIZATION:** Will not occur

### SECTION 11: TOXICOLOGICAL INFORMATION

#### ACUTE TOXICITY

Ingredient Name	Result	Species	Dose	Exposure
Ethylene Glycol	LD 50 Oral	Rat	4,700 mg/kg	-
Ethylene Glycol	LD 50 Dermal	Rabbit	10,626 mg/kg	-
Methanol	LDLO Oral	Human	143 mg/kg	
Methanol	LC50 Oral	Rat	1,187 – 2,769 mg/kg	
Methanol	LC50 Inhalation	Rat	128.2 mg/l	4 h
Methanol	LC50 Inhalation	Rat	87.6 mg/l	6 h
Methanol	LD50 Dermal	Rabbit	17,100 mg/kg	
Propylene Glycol	LD50 Oral	Rat	>20,000 mg/kg	
Propylene Glycol	LD50 Dermal	Rabbit	➤ 2,000 mg/kg	
Propylene Glycol	LC50 Inhalation	Rabbit	317.042 mg/l (aerosol)	2 h

### SECTION 12: ECOLOGICAL INFORMATION

#### TOXICITY

Ingredient	Result	Species	Exposure
Ethylene Glycol	LC50 18,500 mg/l	Rainbow Trout	96 h
Ethylene Glycol	LC50 >10,000 mg/l	Golden Orfe	48 h
Ethylene Glycol	NOEC 32,000 mg/l	Fathead Minnow	7 d
Ethylene Glycol	NOEC 39,140 mg/l	Fathead Minnow	96 h
Ethylene Glycol	EC50 74,000 mg/l	Water Flea	24 h
Ethylene Glycol	NOEC 24,000 mg/l	Water Flea	48 h
Ethylene Glycol	LC50 41,000 mg/l	Water Flea	48 h
Methanol	LC50 15,400 mg/l	Bluegill	96 h
Methanol	NOEC 7,900 mg/l	Oryzias latipes	200 h
Methanol	EC50 10,000 mg/l	Water Flea	48 h
Methanol	EC50 22,000 mg/l	Fresh Water Algae	96 h
Propylene Glycol	LC50 40,613 mg/l	Oncorhynchus mykiss	96 h
Propylene Glycol	LC50 18,340 mg/l	Ceriodaphnia dubia (water flea)	48 h
Propylene Glycol	ErC50 19,000 mg/l	Pseudokirchneriella subcapitata (green algae)	96 h
Propylene Glycol	NOEC 13,020 mg/l	Ceriodaphnia dubia (water flea)	7 days

**ECOTOXICITY:** If spilled this any water or soil contaminated may be hazardous to human, animal and aquatic life.

**ENVIRONMENTAL FATE:** The chemicals in this product are potentially toxic to freshwater and salt water ecosystems. They will normally float on water with their lighter components evaporating rapidly. In stagnant or slow-flowing waterways, a hydrocarbon layer can cover a large surface area. As a result this layer might limit or eliminate natural atmospheric oxygen transport into the water. Which with time could lead to a fish kill or an anaerobic environment.

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## SECTION 13: DISPOSAL CONSIDERATIONS

Hazard characteristics and regulatory waste stream classification can change with product use. It is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition.

When disposing of unused contents, the preferred options are to send to licensed reclaimers or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local laws and regulations. Do not dump into sewers, on the ground, or into any body of water.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

## SECTION 14: TRANSPORT INFORMATION

DOT STATUS: This material is regulated by the U.S. Department of Transportation (DOT).

PROPER SHIPPING NAME: (to ship on the ocean):

UN1950, AEROSOLS, FLAMMABLE (each not exceeding 1L capacity), 2.1, LTD. QTY.

HAZARD CLASS: 2.1

PACKING GROUPS: None for aerosols

PLACARDS: None Required

EMERGENCY RESPONSE GUIDE NO: 126

## SECTION 15: REGULATORY INFORMATION

### 311/312 HAZARD CATEGORIES:

Fire Hazard: YES Pressure Hazard: YES Reactivity Hazard: NO Immediate Hazard: YES Delayed Hazard: YES

### SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III:

CHEMICAL	CAS NUMBER	CONCENTRATION %
Methanol	67-56-1	85-90
Ethylene Glycol	107-21-1	1-5

### FEDERAL EPA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)

requires the notification of the National Response Center of release of quantities of hazardous substances equal to or greater than the reportable quantities (rqs) in 40 CFR 302.4.

CHEMICAL	CAS NUMBER	CONCENTRATION % UPPER BOUND	RQs IN #
Methanol	67-56-1	85-90	5000

**CALIFORNIA PROPOSITION 65:** Yes Methanol

### MASSACHUSETTS RIGHT TO KNOW: Yes

Methanol	67-56-1	85-90
Ethylene Glycol	107-21-1	1-5
Carbon Dioxide	124-38-9	1-5

### PENNSYLVANIA RIGHT TO KNOW: Yes

Methanol	67-56-1	85-90
Ethylene Glycol	107-21-1	1-5
Carbon Dioxide	124-38-9	1-5

### NEW JERSEY RIGHT TO KNOW: Yes

Methanol	67-56-1	85-90
Ethylene Glycol	107-21-1	1-5
Carbon Dioxide	124-38-9	1-5

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<b>SECTION 16: OTHER INFORMATION</b>
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REVISION INFORMATION  
VERSION NUMBER: 1.0001  
REVISION DATE: 10/7/2015  
PRINT DATE:

ABBREVIATIONS:

N/A: Not Applicable

N/D: Not Determined

NE: Not Established

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

HMS: Hazardous Materials Information System

NFPA: National Fire Protection Association

EPA: US Environmental Protection Agency NIOSH: National Institute of Occupational Safety

and Health

DISCLAIMER OF LIABILITY:

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