

SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY INFORMATION

Product Name(s): FIRST STRIKE MICROCOAT
No Frost

Product Code(s): FSMC-G, FSMC-Q, FSMC-P

Uses: Cooling coil protectant.

Company: Controlled Release Technologies, Inc.

Address: 1016 Industry Drive; Shelby, NC 28152; USA

Telephone Number: (704) 487-0878 Fax Number: (704) 487-0877

Emergency Telephone Number: ChemTel Inc. 1- (800) 255-3924; + 01 (813) 248-0585 (International)

Date Issued: April 30, 2015 Date Revised: August 13, 2018

This SDS complies with the OSHA Hazard Communication Standard 29CFR1910.1200 as revised in May 2012 (GHS). It may not meet requirements in other countries.

SECTION 2 HAZARDS IDENTIFICATION

GHS Classification: **WARNING**
Skin Irritation (Category 2)
Eye Irritation (Category 2B)
Aquatic Acute Toxicity (Category 3)



GHS Hazard Statements: Causes skin irritation
Causes eye irritation
Harmful to aquatic life

GHS Precautionary Statements: Prevention:
Wash hands/skin thoroughly after handling.
Wear protective gloves.
Avoid release to the environment

Response:
If on skin: Wash with plenty of water.
If skin irritation occurs: Get medical advice/attention.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Collect spillage.

Storage:
None.

Disposal:
Dispose of contents/container in accordance with local/regional/national/international

SECTION 2 HAZARDS IDENTIFICATION

regulations.

GHS Assessment: Approximately 20% of this mixture consists of ingredient(s) of unknown acute toxicity.
 Approximately 20% of the mixture consists of ingredient(s) of unknown hazards to the aquatic environment.

SECTION 3 COMPOSITION / INGREDIENTS

Component	CAS Number	EC Number	Concentration
Water	7732-18-5	231-791-2	65 - 85%
Polymer(s)	Proprietary	---	15 - 35%
Biocide	Proprietary	---	0.1 - 1.0%

Trade Secret Claims: Specific chemical identity and/or exact percentage (concentration) of components has been withheld as a trade secret.

SECTION 4 FIRST AID MEASURES

First Aid - Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention, if irritation develops.

First Aid - Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately if irritation or rash develops and/or persists. Wash contaminated clothing before reuse.

First Aid - Ingestion: If swallowed and feel unwell, call a physician or poison control center. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

First Aid - Inhalation: If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Important Symptoms / Effects – Acute and Delayed: Tissue redness/irritation.

Advice to Physician: Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Extinguishing Media: Treat surrounding material. Water spray, dry chemical, carbon dioxide, or foam is recommended. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Specific Hazards: This product is not flammable. This product may give rise to hazardous vapors in a fire. Vapors/fumes may be irritating, corrosive and/or toxic.

Protective equipment and procedures for fire-fighters: Wear full protective clothing and self-contained breathing apparatus.

Additional Advice: None.

SECTION 6 ACCIDENTAL RELEASE MEASURES

- Spill Procedures: Wipe up spills with an absorbent towel/material and transfer into suitable containers for recovery or disposal. Finally flush area with water.
- Personal Precautions: Wear suitable protective clothing.
- Environmental Precautions: Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

SECTION 7 HANDLING AND STORAGE

- Handling: Wear appropriate personal protection (See Section 8) when handling this material. The work area must be equipped with a safety shower and eye wash station. If exposed to the solution, avoid contact with skin and eyes. Wash thoroughly after handling.
- Storage: Keep container(s) tightly closed. Use and store this material at temperatures between 15.5°C and 32.2°C (60-90°F) away from heat, direct sunlight and hot metal surfaces. Keep from freezing. Keep away from any incompatible materials (see Section 10).
- Additional Advice: Store in original container. Store as directed by the manufacturer.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Occupational Exposure Standards: Exposure limits are listed below, if they exist.
- Water: None.
- Polymer(s): None.
- Biocide: None.
- Engineering Control Measures: Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.
- Respiratory Protection: A NIOSH certified self-contained breathing apparatus may be used under conditions where airborne concentrations are expected to exceed exposure limits.
- Hand Protection: The use of gloves impervious to the specific material handled is advised to prevent skin contact, possible irritation and skin damage (see glove manufacturer literature for information on permeability).
- Eye Protection: Approved eye protection (safety glasses with side-shields or goggles) to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.
- Body Protection: Impervious clothing should be worn as needed to prevent skin contact.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

- Physical State: Liquid
- Color: Blue
- Odor: Characteristic
- Odor Threshold: Not available.
- pH: 5 - 6
- Melting Point/Range (°C/°F): 0°C / 322°F (water)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point/Range (°C/°F):	100°C / 212°F (water)
Flash Point (PMCC) (°C/°F):	Not flammable.
Evaporation Rate:	Not available.
Flammability / Explosivity Limits in Air (%):	Not available.
Vapor Pressure:	23.8 mmHg (25°C) (water)
Vapor Density (Air = 1):	Not available.
Relative Density:	ca. 1.0
Solubility in Water:	Partly soluble.
Partition Coefficient:	Not available.
Autoignition Temperature (°C/°F):	Not available.
Decomposition Temperature (°C/°F):	Not available.
Viscosity:	Not available.
Explosive Properties:	None.
Oxidizing Properties:	None.
Volatile Organic Content (VOC) (g/l):	ca. 0 g/l (as defined by 40CFR51.100)

SECTION 10 STABILITY AND REACTIVITY

Reactivity:	Product will not undergo additional reaction.
Stability:	Stable under normal storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Contact with incompatible materials, excessive heat.
Incompatibilities:	Oxidizing agents.
Hazardous Decomposition Products:	Oxides of carbon, oxides of sulfur, oxides of silicon, metal oxides, aromatic and aliphatic compounds, toxic by-products.

SECTION 11 TOXICOLOGICAL INFORMATION

If available, toxicity data for the product is given; otherwise component data is listed.

Acute Toxicity:	This product is not expected to be appreciably toxic. (Water) No data. (Polymer(s)) No data. (Biocide) Oral LD50 (rat) 4267-4732 mg/kg; Dermal LD50 (rat) > 2000 mg/kg; Inhalation LC50 (rat) 0.089-0.329 mg/l (4 hr)
Skin Corrosion / Irritation:	The product may be irritating to the skin. (Water) No data. (Polymer(s)) May cause skin irritation. (Biocide) Corrosive to skin.
Serious Eye Damage / Irritation:	The product may be irritating to the eyes. (Water) No data. (Polymer(s)) May cause eye irritation. (Biocide) Corrosive to eyes.
Respiratory or Skin Sensitization:	The product is not expected to be dermally sensitizing; however, certain sensitive individuals may experience an allergic reaction. (Water) No data.

SECTION 11 TOXICOLOGICAL INFORMATION

	(Polymer(s)) No data. (Biocide) Dermally sensitizing (guinea pig).
Mutagenicity:	This product is not expected to be mutagenic. (Water) No data. (Polymer(s)) No data. (Biocide) Not mutagenic (variety of studies).
Carcinogenicity:	This product is not expected to be carcinogenic. (Water) No data. (Polymer(s)) No data. (Biocide) No data.
Reproductive / Developmental Toxicity:	This product is not expected to be developmentally harmful. (Water) No data. (Polymer(s)) No data. (Biocide) Developmental toxicity was observed, but only at maternally toxic doses.
Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity – Single Exposure:	(Water) No data. (Polymer(s)) No data. (Biocide) No data.
Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity – Repeated Exposure:	(Water) No data. (Polymer(s)) No data. (Biocide) No data.
Aspiration Hazard:	This product is not expected to be an aspiration hazard.
Additional Information:	None.

SECTION 12 ECOLOGICAL INFORMATION

If available, ecological data for the product is given; otherwise component data is listed.

Acute Ecotoxicity:	This product may be harmful to aquatic species. (Water) No data. (Polymer(s)) No data. (Biocide) LC50 (Bluegill sunfish) 0.540 mg/l/96 hr; EC50 (Daphnia magna) 0.093 mg/l/48 hr; LC50 (green algae) 0.240 mg/l/72 hr.
Mobility:	(Water) No data. (Polymer(s)) No data. (Biocide) No data.
Persistence/Degradability:	(Water) No data. (Polymer(s)) No data. (Biocide) No data.
Bioaccumulation:	(Water) No data. (Polymer(s)) No data. (Biocide) No data.
Other adverse effects:	None.

SECTION 13 DISPOSAL CONSIDERATION

Environmental precautions:	Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.
Product Disposal:	Dispose in accordance with all local, state (provincial), and federal

SECTION 13 DISPOSAL CONSIDERATION

regulations. Under RCRA, it is the responsibility of the product's user to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Container Disposal: Do not remove label until container is thoroughly cleaned. Empty containers may contain hazardous residues. This material and its container must be disposed of in a safe way.

SECTION 14 TRANSPORT INFORMATION

DOT Proper Shipping Name: Not regulated
 UN Number: None.
 UN Class: None.
 UN Packaging Group: None.
 Reportable Quantity: None.
 Marine Pollutant: None.

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Consult current IATA Regulations prior to shipping by air.

SECTION 15 REGULATORY INFORMATION

US Toxic Substance Control Act: All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Canadian Domestic Substance List: One or more component(s) of this product are not listed on the Canadian Domestic List. Limited quantities may be permitted.

EU Existing Inventory of Chemical Substances: One or more component(s) of this product are not in compliance with the inventory listing requirements of the E.U. Existing Inventory of Chemical Substances (EINECS). One or more component(s) of this product have not been pre-listed under REACH. Limited quantities may be permitted.

TSCA Sec.12(b) Export Notification: This product does not contain a chemical at or above de minimis concentrations which requires reporting.

Canadian WHMIS Classification: D.2.B
 This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

Massachusetts Right-To-Know: This product does not contain materials subject to disclosure under the Massachusetts' Right-To-Know Law.

New Jersey Right-To-Know: This product does not contain materials subject to disclosure under the New Jersey's Right-To-Know Law.

Pennsylvania Right-To-Know: This product does not contain materials subject to disclosure under the Pennsylvania's Right-To-Know Law.

California Proposition 65: This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.

SARA TITLE III-Section 311/312 Categorization (40 CFR 370): Immediate (acute) hazard

SARA TITLE III-Section 313: This product does not contain materials which are listed in Section 313

SECTION 15 REGULATORY INFORMATION

(40 CFR 372):	at or above de minimis concentrations.		
CERCLA Hazardous Substance (40 CFR 302)	This product does not contain materials subject to reporting under CERCLA and Section 304 of EPCRA.		
Water Hazard Class (WGK):	This product is slightly water-endangering (WGK=1).		
Other Chemical Inventories:	Australia (AICS):	One or more component(s) not listed.	
	China (IECSC):	One or more component(s) not listed.	
	Japan (ENCS):	One or more component(s) not listed.	
	Korea (KCI):	One or more component(s) not listed.	
	Philippines (PICCS):	One or more component(s) not listed.	

SECTION 16 OTHER INFORMATION

NFPA Rating - HEALTH:	1		
NFPA Rating - FIRE:	1		
NFPA Rating - REACTIVITY:	0		
NFPA Rating - SPECIAL:	NONE		
SDS Date Issued:	April 30, 2015		
SDS Current Version:	1.2	Version Date:	August 13, 2018
SDS Revision History:	v1.0 Initial version. v1.1 Company logo changed. v1.2 Added product name (Section 1).		
Abbreviations:	GHS: Globally Harmonized System of Classification and Labeling of Chemicals CAS#: Chemical Abstract Services Number ACGIH: American Conference of Governmental Industrial Hygienists OSHA: Occupational Safety and Health Administration NFPA: National Fire Protection Association DOT: US Department of Transportation RCRA: US Resource Conservation and Recovery Act TLV: Threshold Limit Value TWA: Time-Weighted Average PEL: Permissible Exposure Limit STEL: Short Term Exposure Limit WEEL: Workplace Environmental Exposure Levels AIHA: American Industrial Hygiene Association NTP: National Toxicology Program IARC: International Agency for Research on Cancer R: Risk S: Safety LD50: Lethal Dose 50% LC50: Lethal Concentration 50% EC50: Effective Concentration 50% BCF: Bioconcentration Factor BOD: Biological Oxygen Demand Koc: Soil Organic Carbon Partition Coefficient. Tlm: Median Tolerance Limit		
Key References:	United States National Library of Medicine's TOXNET Patty's Toxicology, 5 th Edition European Commission's Institute for Health and Consumer Protection American Conference of Governmental Industrial Hygienists International Agency for Research on Cancer United States National Toxicology Program		

SECTION 16 OTHER INFORMATION

United States Occupational Safety and Health Administration
United States Department of Transportation
Supplier Material Safety Data Sheets

Disclaimer:

The data contained herein is based on information that the company believes to be reliable, but no expressed or implied warranty is made with regard to the accuracy of such data or its suitability for a given situation. Such data relates only to the specific product described and not to such products in combination with any other product and no agent of the company is authorized to vary any of such data. The company and its agents disclaim all liability for any action taken or foregone on reliance upon such data.

Prepared by:

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