



SAFETY DATA SHEET

Arctik Fire™ GLY-48- Inhibited Glycerin

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product/Chemical Name: Arctik Fire™ GLY-48 (AF-GLY-48-I)
Product Description/ Fire Sprinkler Antifreeze – 48% Glycerin (by volume) Factory Blended
Recommended Use: Fire sprinkler systems containing both steel/iron pipe and CPVC pipe/fittings.
Chemical Family: propane-1,2,3-triol
Manufacturer: G2 Solutions
4920 Fox Street, #C
Denver, CO 80216
303-287-4870
www.G2Solutions.com
EMERGENCY 800-633-8253

SECTION 2 - HAZARD IDENTIFICATION

Classification: Mild Skin Irritation, Category 3
Mild Eye Irritation, Category 2B
Specific Target Organ Toxicity, Single Exposure Respiratory Tract Irritation, Category 3
Signal Word: Warning
Pictogram(s):



Hazard Statement(s): H316 Causes Mild Skin Irritation.
H320 Causes Mild Eye Irritation.
H335 May Cause Respiratory Irritation.

Precautionary Statement(s):

Prevention:
 P261 Avoid breathing dust/fume/gas/mist/vapors/spray
 P264 Wash hands thoroughly after handling.
 P271 Use only outdoors or in well-ventilated area.

Response:
 P304 IF INHALED: Remove from exposure immediately. If not breathing, give artificial respiration.
 P305 IF IN EYES: Flush immediately with water for 15 minutes.
 P312 Call physician if you feel unwell.
 P313 Get medical advice/attention.
 P332 If skin irritation occurs: Remove contaminated clothing, wash skin with soap and water for 15 minutes. Wash clothing before reuse.
 P337 If eye irritation persists: seek medical attention.
 P338 Remove contact lenses if present and easy to do. Continue Rinsing.
 P340 Remove person to fresh air and keep comfortable for breathing.
 P351 Rinse cautiously with water for several minutes.

Storage:
 P403 Store in a well-ventilated place.
 P405 Store locked up.

Disposal:
 P501 Dispose of contents/container in accordance with local, national, and international regulations.

Primary route(s) of Exposure: Eye, Skin, Inhalation, Ingestion
 Eye Contact: May cause mild irritation or allergic reaction.
 Skin Contact: May cause mild irritation or allergic reaction.
 Ingestion: May cause gastrointestinal discomfort.
 Inhalation: May cause mild irritation or allergic reaction.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS No</u>	<u>WT. RANGE %</u>
*Glycerin	56-81-5	>53%
Dipotassium Phosphate	7758-11-4	>1.5%
Proprietary Inhibitors		
Deionized Water	7732-18-5	Balance

*Hazardous according to OSHA (1910.1200) or one or more state Right-to-Know lists.

SECTION 4 – FIRST AID MEASURES

Eyes: Flush immediately with water for 15 minutes. If irritation develops seek medical attention.

Skin: Remove contaminated clothing, wash skin with soap and water for 15 minutes. If irritation develops seek medical attention. Wash clothing before reuse.

Ingestion: If swallowed rinse mouth with water. Do not induce vomiting. Seek medical attention immediately.

Inhalation: Remove from exposure immediately. If not breathing, give artificial respiration. Seek medical attention immediately.

Caution: If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.

SECTION 5 – FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Based on the NFPA guide, use dry chemical, foam, carbon dioxide or water. Do not use direct water stream as it may spread the fire.
Specific Fire Hazards (Hazardous Combustion Products):	Heating of containers may cause an explosion. Irritating and highly toxic gases may be released by thermal decomposition or combustion.
Special Protective Equipment/Precautions for Firefighters:	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus. Do not release runoff to sewers or waterways.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions/Protective Equipment/Emergency Procedures:	Ventilate area of spill. Clear area of all unprotected personnel. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Absorb on suitable material and shovel up. Prevent entry into sewers and waterways.
Methods and Materials for Containment/ Clean Up:	Recover usable materials by convenient method. Large spills should be diked and pumped. Remove the absorbed material and place in an appropriate chemical waste container for disposal.

SECTION 7 – HANDLING AND STORAGE

Precautions for Safe Handling:	Avoid skin and eye contact. Do not swallow. Keep out of reach of children and animals.
Conditions for Safe Storage and Incompatibility:	Store in a cool, dry, well ventilated area. Keep containers closed when not in use. Avoid contact with strong oxidizers. Can react violently with acetic anhydride, calcium oxychloride, Chromium oxides, and alkali metal hydrides.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:	Glycerin (Mist) = OSHA PEL (Total Particulate) 15 mg/m ³ (TWA); ACGIH TLV 10 mg/m ³ (TWA) Dipotassium Phosphate = OSHA PEL (Total Particulate) 15 mg/m ³ (TWA); ACGIH TLV 10 mg/m ³ (TWA) and OSHA PEL (Respirable Particulate) 5 mg/m ³ (TWA); ACGIH TLV 3 mg/m ³ (TWA)
Appropriate Engineering Controls:	Provide general or local exhaust ventilation systems.
Personal Protective Equipment (PPE)	The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors. PPE recommendations include: neoprene, natural rubber, or PVC gloves; splash protective chemical goggles; lab coat or apron. Respiratory protection is not normally needed under normal conditions of use with adequate ventilation. If significant mists or aerosols are generated, wear a NIOSH approved or equivalent respirator. Wash contaminated clothing before reuse. Wash hands at the end of each work shift and before eating, smoking and using the toilet.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear Colorless Viscous Liquid
Odor:	Little or No Odor
Odor Threshold:	Not determined
pH:	9.0 - 10.5

Melting Point/ Freezing Point:	-16 °F
Initial Boiling Point:	225°F
Flash Point:	Not applicable for this aqueous solution
Evaporation Rate:	Not determined
Upper/ Lower Flammability Limits:	Not determined/ 0.9%
Specific Gravity (Water=1):	1.1345
Vapor Pressure (at 50 °C):	0.0025
Vapor Density (Air=1):	3.17
Relative Density:	9.46 lbs./gallon
Solubility:	Soluble
Partition Coefficient:	Not determined
Auto-Ignition Temperature:	>750 °F
Decomposition Temperature:	330 °F
Viscosity:	< 20 cps at 20°F or higher

NOTE: These physical properties are typical values for this product.

SECTION 10 – STABILITY AND REACTIVITY

Reactivity/ Chemical Stability:	Stable under ordinary conditions of use and storage
Possibility of Hazardous Reactions:	Normally unreactive, but try to avoid strong oxidizers and extremely high temperatures due to thermal decomposition.
Conditions to Avoid:	Heat, flames, ignition sources, and incompatibles.
Incompatible Materials:	Strong oxidizers. Can react violently with acetic anhydride, calcium oxchloride, Chromium oxides, and alkali metal hydrides.
Hazardous Decomposition Products:	Toxic gases and vapors may be released if involved in a fire. Glycerin decomposes upon heating above 554 °F forming corrosive gas (acrolein).

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of Exposure:	Skin/Eye Absorption Ingestion Inhalation
Symptoms of Exposure:	Acute: Relatively non-toxic. May be harmful if swallowed and cause gastrointestinal discomfort. May also cause irritation or allergic reaction to skin, eyes, and respiratory tract.
Acute Oral Toxicity (Albino Rats):	LD50 = 12,600 mg/kg.
Acute Dermal Toxicity (Albino Rabbits):	LD50 = > 10,000 mg/kg.
Acute Inhalation Toxicity (Albino Rats):	LC50 = > 570 mg/kg.
Carcinogenicity:	NTP: Not Listed IARC: Not Listed OSHA: Not Listed ACGIH: Not Listed

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:	Glycerin (56-81-5) LC50 Fish 1: 51 - 57 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static]) EC50 Daphnia 1: > 500 mg/l (Exposure time: 24 h - Species: Daphnia magna)
Persistence and Degradability:	Glycerin is biodegradable and unlikely to persist.
Bioaccumulative Potential:	Glycerin based on the n-octanol/water partition coefficient accumulation in organisms is not expected.
Mobility in Soil:	Not determined.
Other Adverse Effects:	Not determined.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal:	Dispose in accordance with all applicable Federal, State, and Local regulations. Contact a permitted waste disposer (TSD) to assure compliance. Do not dump into sewers or waterways.
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SECTION 14 – TRANSPORT INFORMATION

DOT Proper Shipping Name:	Not regulated
Shipping Symbols:	Not applicable
Hazard Class:	Not applicable
UN Number:	Not applicable
Packing Group:	Not applicable
Label:	Not applicable
Special Provisions (172.102):	Not applicable

SECTION 15 – REGULATORY INFORMATION

Federal Regulations:

OSHA's Hazard Communication Rule, 29 CFR 1910.1200:	Based on our hazard evaluation, the following ingredient in this product is hazardous: Glycerin - acute mild irritation effects skin, eyes, respiratory tract.
Toxic Substances Control Act (TSCA):	The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).
Resource Conservation and Recovery Act (RCRA), 40 CFR 261 Subpart C & D:	If this product becomes a waste, it does not meet the criteria of a hazardous waste.
Federal Water Pollution Control Act, Clean Water Act, 40 CFR 401.15	This product does not contain ingredients covered by the Clean Water Act.
Clean Air Act, 40 CFR 60, Section 111, 40 CFR 61, Section 112:	This product does not contain ingredients covered by the Clean Air Act.
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) 40 CFR 117, 302:	This product does not contain ingredients considered to have a Reportable Quantity (RQ) under the Comprehensive Environmental Response, Compensation, and Liability Act.

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III -Section 302, 311, 312, and 313:

Section 302-Extremely Hazardous Substances (40 CFR 355);
This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.

Sections 311 AND 312-Material Safety Data Sheet Requirements (40 CFR 370);
Our hazard evaluation has found this product to be hazardous. The product should be reported under the following EPA hazard categories:

- XX Immediate (acute) health hazard
- Delayed (chronic) health hazard
- Fire Hazard
- Sudden release of pressure hazard
- Reactive hazard

Section 311, submittal of MSDS's or a list of product names to the local emergency planning commission, state emergency response commission and local fire departments is required after October 17, 1987 if you have:
-10,000 pounds or more of a hazardous substance, or
-500 pounds or the threshold planning quantity, whichever is less, of an extremely hazardous substance.

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III -Section 313-List of Toxic Chemicals (40CFR 372):

This product does not contain ingredients which appear on the List of Toxic chemicals.

State Regulations:

California Proposition 65:

None of the chemicals on the current Proposition 65 list are known to be present in this product.

Michigan Critical Materials:

This Product does not contain ingredients listed on the Michigan Critical Materials Register.

State Right to Know Laws:

Regulated in those states using the TLV for Glycerin as a criteria for listing.

SECTION 16 – OTHER INFORMATION

Date of Preparation: January 10, 2011

Date of Revision: May 1, 2015

HMIS Rating:

1	Health
1	Flammability
0	Reactivity
0	Special

This product Safety Data Sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations. Please consult your local sales representative for any further information.

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