



Material Safety Data Sheet

Frigi-Clean®

MSDS ID: 709

*** Section 1 - Chemical Product and Company Identification ***

Part Number: 709

Product Use: For removing accumulated debris from A/C evaporators

Manufacturer Information

BG Products Inc.
701 S. Wichita Street
Wichita, KS 67213 USA
Mfg Contact: www.bgprod.com

Phone: (800) 961-6228 or (316) 265-2686
Fax: (316) 265-1082
Emergency # 1-800-424-9300 (CHEMTREC)

*** Section 2 - Hazards Identification ***

Emergency Overview

WARNING

- CONTENTS UNDER PRESSURE! Pressurized container may explode when exposed to heat or flame.
- EYE AND SKIN IRRITANT! Avoid contact with eyes, skin, and clothing.
- This product may be harmful by inhalation. Avoid prolonged breathing of fumes. Use with adequate ventilation.

HMIS Ratings: Health: 1 Fire: 0 Physical Hazard: 0 Pers. Prot.: B

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
7732-18-5	Deionized Water	60-100
75-28-5	Isobutane	5-10
9016-45-9	Ethylene oxide-Nonylphenol polymer	3-7
57-55-6	Propylene Glycol	1-5

Component Information

This product is not considered hazardous under 29 CFR 1910.1200 (Hazard Communication) when used for its intended purpose.

*** Section 4 - First Aid Measures ***

Eyes

In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. If irritation persists get medical attention.

Skin

For skin contact flush with large amounts of water while removing contaminated clothing. If irritation persists, get medical attention.

Ingestion

If ingested, get immediate medical attention. Do not induce vomiting unless instructed to do so by medical personnel.

Inhalation

Move person to non-contaminated air. Give artificial respiration if not breathing. Call a physician if symptoms develop or persist.



Material Safety Data Sheet

Frigi-Clean®

MSDS ID: 709

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards

See Section 9 for Flammability Properties.
Keep away from heat, sparks, or open flame.

Hazardous Combustion Products

Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Extinguishing Media

Dry chemical, foam, carbon dioxide.

Fire Fighting Equipment/Instructions

Fire fighters should wear full-face, self contained breathing apparatus and impervious protective clothing.
Fire fighters should avoid inhaling any combustion products.

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

*** Section 6 - Accidental Release Measures ***

Containment Procedures

Contain the discharged material. Remove sources of ignition.

Clean-Up Procedures

Wear appropriate protective equipment and clothing during clean-up. Absorb spill with inert material.
Shovel material into appropriate container for disposal.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away. In case of large spills, follow all facility emergency response procedures.

Special Procedures

Wear appropriate personal protective equipment.

*** Section 7 - Handling and Storage ***

Handling Procedures

Avoid getting this material into contact with your skin and eyes. Wash thoroughly after handling. Use this product with adequate ventilation. Keep container closed.

Storage Procedures

Do not store this material in open or unlabeled containers. Store this product in air-tight containers away from sources of heat and light.

*** Section 8 - Exposure Controls / Personal Protection ***

A: Component Exposure Limits

Isobutane (75-28-5)

ACGIH: 1000 ppm TWA (listed under Aliphatic hydrocarbon gases alkane C1-C4)

NIOSH: 800 ppm TWA; 1900 mg/m³ TWA



Material Safety Data Sheet

Frigi-Clean®

MSDS ID: 709

B: Canadian Provincial Exposure Limits

Isobutane (75-28-5)

Manitoba: 1000 ppm TWA (listed under Aliphatic hydrocarbon gases alkane C1-C4)
 Nova Scotia: 1000 ppm TWA (listed under Aliphatic hydrocarbon gases alkane C1-C4)
 Saskatchewan: 1000 ppm TWA
 1250 ppm STEL

PROPYLENE GLYCOL (57-55-6)

Ontario: 50 ppm TWAEV (total aerosol and vapour); 155 mg/m3 TWAEV (total aerosol and vapour); 10 mg/m3 TWAEV (aerosol only, for assessing the visibility in a work environment)

Engineering Controls

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

General

Use good industrial hygiene practices in handling this material. Avoid inhalation of mists/vapors and contact with skin and eyes.

Skin

Use appropriate hand protection.

Respiratory

Use NIOSH approved respirator with cartridge, air line, or SCBA as appropriate based on workplace exposure evaluations.

Eyes

Wear safety glasses; chemical goggles (if splashing is possible).

*** Section 9 - Physical & Chemical Properties ***

Appearance: Clear Physical State: Liquid Flash Point Method: Not Available Melting Point: Not Available Specific Gravity: 1.008 Solubility (H2O): Dispersible Vapor Density: >1 Volatile Organic Content: 96% Lower Flammability Limit: Not Available pH: 9.0	Odor: Mild Flash Point: Not Determined Boiling Point: Not Available Pour Point: -10°C (-23°F) Bulk Density: 8.412 lbs/gal Vapor Pressure: 52 psig Percent Volatile: 6% Auto Ignition: Not Available Upper Flammability Limit: Not Available
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*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

Stable under normal conditions.

Chemical Stability: Conditions to Avoid

Keep away from heat, ignition sources and incompatible materials. Avoid strong oxidizing agents.

Incompatibility

This product may react with oxidizing agents. Strong oxidizing agents (peroxides, chlorine, strong acids).

Hazardous Decomposition

Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.



Material Safety Data Sheet

Frigi-Clean®

MSDS ID: 709

Possibility of Hazardous Reactions

Will not occur.

*** Section 11 - Toxicological Information ***

Acute Dose Effects

A: General Product Information

An LD50 value for this product has not been determined.

B: Component Analysis - LD50/LC50

Deionized Water (7732-18-5)

Oral LD50 Rat: >90 mL/kg

Isobutane (75-28-5)

Inhalation LC50 Rat: 658 mg/L/4H

Ethylene oxide-Nonylphenol polymer (9016-45-9)

Oral LD50 Rat: 1310 mg/kg; Dermal LD50 Rabbit: 2 mL/kg

Propylene Glycol (57-55-6)

Oral LD50 Rat: 20000 mg/kg; Dermal LD50 Rabbit: 20800 mg/kg

Carcinogenicity

A: General Product Information

No carcinogenicity data available for this product.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

*** Section 12 - Ecological Information ***

Ecotoxicity

No information available for the product.

*** Section 13 - Disposal Considerations ***

Waste Disposal Instructions

Dispose of in accordance with all applicable Federal, State, Provincial, and local regulations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Consumer Commodity, ORM-D

IMDG Information

Shipping Name: Aerosols

UN #: 1950 Hazard Class: 2.2

Required Label(s): Limited Quantity

IATA Information

Shipping Name: Aerosols

UN #: 1950 Hazard Class: 2.2

Required Label(s): Limited Quantity



Material Safety Data Sheet

Frigi-Clean®

MSDS ID: 709

*** Section 15 - Regulatory Information ***

US Federal Regulations

Components of this product have been checked against the non-confidential TSCA inventory by CAS Registry Number. Components not identified on this non-confidential inventory are exempt from listing (i.e. as polymers) or are listed on the confidential inventory as declared by the supplier.

A: Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

B: Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Deionized Water	7732-18-5	Yes	DSL	EINECS
Isobutane	75-28-5	Yes	DSL	EINECS
Ethylene oxide-Nonylphenol polymer	9016-45-9	Yes	DSL	No
Propylene glycol	57-55-6	Yes	DSL	EINECS

State Regulations

Other state regulations may apply. Check individual state requirements.

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Isobutane	75-28-5	No	Yes	No	Yes	Yes	No
Propylene Glycol	57-55-6	No	No	Yes	No	Yes	Yes

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Propylene Glycol	57-55-6	1 %

*** Section 16 - Other Information ***

Other Information

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage, or expense, direct or consequential, arising out of their use. You must notify each person to whom this mixture or trade name product is sold. This statement must not be detached. Any copy or redistribution of the Material Safety Data Sheet shall include this statement.

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; CAS = Chemical Abstract Services; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; CFR = Code of Federal Regulations; CPR = Controlled Product Regulations; DOT = Department of Transportation; DSL = Domestic Substances List; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EPA = Environmental Protection Agency; HMIS = Hazardous Materials Information System; IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; IDL = Ingredient Disclosure List; IMDG = International Maritime Dangerous Goods; LC50 = Lethal Concentration 50%; LD50 = Lethal Dose 50%; NDSL = Non-Domestic Substances List; NFPA = National Fire Protection Agency; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; SARA = Superfund Amendments and



Material Safety Data Sheet

Frigi-Clean®

MSDS ID: 709

Reauthorization Act; SCBA = Self Contained Breathing Apparatus; TSCA = Toxic Substance Control Act; WHMIS = Workplace Hazardous Materials Information System.

Contact Information

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End of MSDS 709