MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name	**Marino C - Mist Linen**
CAS #	Mixture
Product use	Deodorizer
Manufacturer	Freudenberg Household Products Inc. 59 Talman Court Concord, ON L4K 4L5 CA Phone: 905-669-9949 Emergency Phone: 1-613-996-6666 (CANUTEC)

2. Hazards Identification

Emergency overview	DANGER Flammable aerosol. Contents under pressure. Containers may explode when heated. EYE IRRITANT
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Skin absorption, Inhalation, Ingestion.
Eyes	Causes irritation.
Skin	May cause irritation. May be absorbed through the skin.
Inhalation	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
Ingestion	Not a normal route of exposure. May cause stomach distress, nausea or vomiting.
Target organs	Eyes. Respiratory system. Skin.
Chronic effects	Prolonged or repeated exposure can cause drying, defatting and dermatitis.
Signs and symptoms	Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
OSHA Regulatory Status	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
Potential environmental effects	See section 12.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Isopropanol	67-63-0	30 - 60
Isobutane	75-28-5	15 - 40
Propane	74-98-6	15 - 40

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention if irritation develops or persists.
Skin contact	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.
Ingestion	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
Notes to physician	Symptoms may be delayed.

General advice	Do not puncture or incinerate container. Keep away from sources of ignition. No smoking. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties	Flammable by WHMIS/OSHA criteria. Containers may explode when heated.
Extinguishing media	
Suitable extinguishing media	Dry chemical. Foam. Carbon dioxide. Water spray.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. Cool containers with flooding quantities of water until well after fire is out.
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Environmental precautions	Prevent entry into waterways, sewers, basements or confined areas.
Methods for containment	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Remove sources of ignition. Although the chance of a significant spill or leak is unlikely in aerosol containers, in the event of such an occurrence, absorb spilled material with a non-flammable absorbent such as sand or vermiculite.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. Pressurized container: Do not pierce or burn, even after use. Use only with adequate ventilation. Avoid contact with eyes.
Storage	Keep out of reach of children. Keep away from heat, open flames or other sources of ignition. Protect from sunlight. Do not store at temperatures above 49 °C (120.2°F).

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)	Exposure Limits
Isobutane	**ACGIH-TLV** TWA: 1000 ppm **OSHA-PEL** Not established
Isopropanol	**ACGIH-TLV** TWA: 200 ppm STEL: 400 ppm **OSHA-PEL** TWA: 400 ppm
Propane	**ACGIH-TLV** TWA: 1000 ppm **OSHA-PEL** TWA: 1000 ppm

Engineering controls General ventilation normally adequate.

Personal protective equipment

Eye / face protection Not normally required when used as directed. Safety glasses if eye contact is possible.

Hand protection Not normally required when used as directed.

Skin and body protection As required by employer code.

Respiratory protection Not normally required if good ventilation is maintained.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Aerosol.
Color	Clear, colorless
Form	Spray
Odor	Fresh linen
Odor threshold	Not available
Physical state	Gas
pH	7.5
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Pour point	Not available
Evaporation rate	< 1 (BuAc=1)
Flash point	< 32 °F (< 0.00 °C)
Auto-ignition temperature	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	> 1 (Air = 1)
Specific gravity	0.99
Octanol/water coefficient	Not available
Solubility (H2O)	Soluble
Percent volatile	25 %

10. Stability and Reactivity

Reactivity	None known.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Heat, open flames, static discharge, sparks and other ignition sources. Aerosol containers are unstable at temperatures above 49°C (120.2°F). Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizers.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Isobutane	658 mg/l/4h rat
Isopropanol	16970 mg/l/4h rat
Propane	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Isobutane	Not available
Isopropanol	4396 mg/kg rat
Propane	Not available

Effects of acute exposure

Eye	Causes irritation.
Skin	May cause irritation. May be absorbed through the skin.
Inhalation	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
Ingestion	Not a normal route of exposure. May cause stomach distress, nausea or vomiting.
Sensitization	Non-hazardous by WHMIS/OSHA criteria.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	Non-hazardous by WHMIS/OSHA criteria.

ACGIH - Threshold Limit Values - Carcinogens

Isopropanol	67-63-0	A4 - Not Classifiable as a Human Carcinogen

IARC - Group 3 (Not Classifiable)

Isopropanol	67-63-0	Monograph 71 [1999]; Supplement 7 [1987]; Monograph 15 [1977]

Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Reproductive effects	Non-hazardous by WHMIS/OSHA criteria.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.
Name of Toxicologically Synergistic Products	Not available

12. Ecological Information

Ecotoxicity	Components of this product have been identified as having potential environmental concerns.

Ecotoxicity - Freshwater Algae - Acute Toxicity Data

Isopropanol	67-63-0	96 Hr EC50 Desmodesmus subspicatus: >1000 mg/L; 72 Hr EC50 Desmodesmus subspicatus: >1000 mg/L

Ecotoxicity - Freshwater Fish - Acute Toxicity Data

Isopropanol	67-63-0	96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 11130 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: >1400000 µg/L

Ecotoxicity - Water Flea - Acute Toxicity Data

Isopropanol	67-63-0	48 Hr EC50 Daphnia magna: 13299 mg/L

Persistence / degradability	Not available
Bioaccumulation / accumulation	Not available

Mobility in environmental media	Not available
Environmental effects	Not available
Aquatic toxicity	Not available
Partition coefficient	Not available
Chemical fate information	Not available
Other adverse effects	Not available

13. Disposal Considerations

Disposal instructions	Review federal, state/provincial, and local government requirements prior to disposal. Do not puncture or incinerate container.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Basic shipping requirements:

Proper shipping name	Aerosols
Hazard class	2.1
UN number	UN1950
Additional information:	
Special provisions	153, N82
Packaging exceptions	Limited quantity <1L
ERG number	126

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

Proper shipping name	Aerosols, flammable
Hazard class	2.1
UN number	UN1950
Additional information:	
Special provisions	80
Packaging exceptions	Limited quantity <1L

15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada - WHMIS - Ingredient Disclosure List

Isopropanol	67-63-0	1 %

WHMIS status	Controlled
WHMIS classification	Class A - Compressed Gas, Class B - Division 5 - Flammable Aerosol, Class D - Division 2B

WHMIS labeling

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

US Federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Isopropanol	67-63-0	1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - Yes
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Clean Air Act (CAA) Not available

Clean Water Act (CWA) Not available

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Isopropanol	67-63-0	Present

U.S. - Massachusetts - Right To Know List

Isobutane	75-28-5	Present
Isopropanol	67-63-0	Present
Propane	74-98-6	Present

U.S. - Minnesota - Hazardous Substance List

Isopropanol	67-63-0	Present
Propane	74-98-6	Simple asphyxiant

U.S. - New Jersey - Right to Know Hazardous Substance List

Isobutane	75-28-5	sn 1040
Isopropanol	67-63-0	sn 1076
Propane	74-98-6	sn 1594

U.S. - Pennsylvania - RTK (Right to Know) List

Isobutane	75-28-5	Present
Isopropanol	67-63-0	Environmental hazard
Propane	74-98-6	Present

U.S. - Rhode Island - Hazardous Substance List

Isopropanol	67-63-0	Toxic; Flammable
Propane	74-98-6	Toxic; Flammable

Inventory name

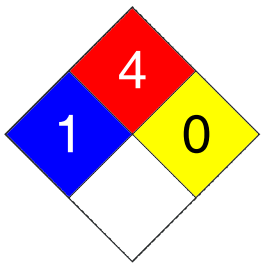
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/	1
Flammability		4
Physical Hazard		0
Personal Protection		X



Disclaimer

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Other information For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.