

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name	Marino C - Mist Citrus
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 and skin 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
Orange, sweet, extract	8028-48-6	1 - 5

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. Avoid contact with eyes and skin. 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. Water spray. Carbon dioxide.

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)

Isobutane

Exposure Limits

ACGIH-TLV

TWA: 1000 ppm

OSHA-PEL

Not established

Isopropanol

ACGIH-TLV

TWA: 200 ppm

STEL: 400 ppm

OSHA-PEL

TWA: 400 ppm

Orange, sweet, extract

ACGIH-TLV

Not established

OSHA-PEL

Not established

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	Citrus
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
Orange, sweet, extract	Not available
Propane	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Isobutane	Not available
Isopropanol	4396 mg/kg rat
Orange, sweet, extract	Not available
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		
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**

Canada

Canada

United States & Puerto Rico

Inventory name

Domestic Substances List (DSL)

Non-Domestic Substances List (NDSL)

Toxic Substances Control Act (TSCA) Inventory

On inventory (yes/no)*

Yes

No

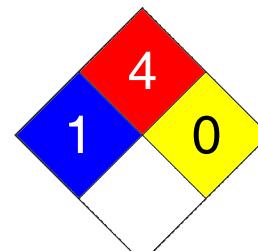
Yes

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**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date

26-Sep-2011

Effective date

15-Sep-2011

Expiry date

15-Sep-2014

Prepared by

Dell Tech Laboratories Ltd. (519) 858-5021

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.