

## Endo Ice® - Green Refrigerant Spray

Coltene Inc.

Internal Document Number: 48300

Revision Date: November 2019


### Section 1 - IDENTIFICATION

**Product Names:** Endo Ice® - Green Refrigerant Spray

**Product Codes:** 60023526

**Recommended Use:** Utilized in dentistry for pulp testing.

**Restrictions on Use:** Federal law restricts this device to sale by or on the order of a licensed physician.

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Copies of this SDS can be found at  
[www.coltene.com](http://www.coltene.com)

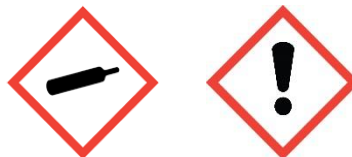
### Section 2 - HAZARD(S) IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

**Hazard Category, Subcategory:** Gasses Under Pressure, Liquefied gas  
Simple Asphyxiant – Category 1

**GHS Label Elements:**

**Symbol(s)**



**Signal Word:**

Warning

**Hazard Statement(s):**

Contains gas under pressure, may explode if heated.  
Contains refrigerated gas, may cause cryogenic burns or injury.  
May displace oxygen and cause rapid suffocation.

**Precautionary Statement(s):**

**Prevention:**

Pressurized container; do not pierce or burn, even after use. Do not breathe mist/spray. Do not get in eyes or on skin. Keep out of reach of children. Use only outdoors or in a well ventilated place.  
Wear protective gloves/Protective clothing/eye protection/face protection.

**Response:**

If on skin, thaw frosted parts with lukewarm water. Do not rub affected area. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

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**Storage:** Protect from sunlight. Store in a well ventilated place.  
**Disposal:** Dispose of in accordance with local, state and federal regulations.

### Statement(s) of Unknown Acute Toxicity:

Zero % of the mixture consists of ingredient(s) of unknown acute toxicity.

### Other Hazards which do not result in classification

None noted

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS number	Percent (w/w%)
1,3,3,3-Tetrafluoropropene	29118-24-9	80-100%

## Section 4 - FIRST AID MEASURES

### Description of Necessary Measures

**General Advice:** If exposed or feeling unwell, consult a physician. Move out of affected area.

**Inhalation:** Move person into fresh air and keep comfortable for breathing. Contact a physician if irritation persists.

**Skin:** In case of contact with liquid spray, warm frozen tissues slowly with lukewarm water and get medical attention. Do not rub affected area. Wash/clean exposed clothing and shoes before reuse. Consult a physician if a reaction occurs.

**Eyes:** Flush eyes slowly with room temperature water for at least 15 minutes. Consult a physician if irritation persists.

**Ingestion:** Not a likely route of exposure.

**Most Important Symptoms/Effects:** Acute: Eyes and skin, liquid can cause burns, similar to frostbite.

## Section 5 - FIRE-FIGHTING MEASURES

**Extinguishing Media:** Use an extinguishing method suitable for the surrounding fire.

**Unsuitable Extinguishing Media:** No data available

**Specific Hazards Arising from the Chemical:** Contains gas under pressure. In a fire or if heated, a pressure increase will occur and the container may burst or explode.

**Special Protective Equipment and Precautions for Firefighters:** Explosion Hazard. Fight advanced fires from a distance or protected location. Cool containers with water spray. Wear protective equipment and self-contained breathing apparatus (SCBA) per fire department's SOP.

## Section 6 - ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures:** Use personal protective equipment. Avoid breathing mist or gas. Ensure adequate ventilation. For PPE see Section 8.

**Methods and Materials for Containment and Cleaning Up:** Large spill: Ventilate contaminated area, remove all sources of ignition. See Section 13 for waste disposal.

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### Section 7 - HANDLING AND STORAGE

**Precautions for Safe Handling:** Use with adequate ventilation. Do not use near ignition sources. Always wear protective gloves and eye protection.

**Conditions for Safe Storage, Including Any Incompatibilities:** Store in a cool, dry location. Do not store at temperatures over 49°C (120°F). Keep out of reach of children.

### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Component Exposure Limits:

There are no reported exposure limits for any of this products components.

#### ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI):

There are no biological limit values for any of this product's components.

#### Appropriate Engineering Controls:

Local ventilation should be adequate. Mechanical ventilation would add additional protection.

#### Individual Protection Measures, such as Personal Protective Equipment:

**Eye/face protection:** Wear safety glasses/goggles.

**Skin Protection:** Wear protective gloves. Wash hands thoroughly after use.

**Respiratory Protection:** None necessary if adequate ventilation is provided. Product is an asphyxiant, air purifying respirators would not provide protection. SCBA would be necessary in an enclosed area without proper ventilation.

### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear spray	Physical State	Gas (liquefied compressed gas)
Odor	Spearmint	Color	Colorless
Odor Threshold	Moderate	pH	Not applicable
Melting Point	No data	Molecular Weight	No data
Boiling Point	No data	Freezing point	No data
Evaporation Rate	No data	Flammability class	Non-flammable
Autoignition Temperature	~ 368°C (~694°F)	Flash Point	Not applicable
Lower Explosive Limit	No data	Decomposition temperature	No data
Upper Explosive Limit	No data	Vapor Pressure	60.8 psig @ 70°F
Vapor Density (air=1)	4.0	Relative Density(water=1)	1.17
Water Solubility	Negligible, 0-1%	Partition coefficient: n-octanol/water	No data
Viscosity	No data	Kinematic viscosity	No data

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## Section 10 - STABILITY AND REACTIVITY

**Reactivity:**

Reactive under specific conditions, such as very high temperatures and/or sufficient pressures.

**Chemical Stability:**

Chemically stable

**Conditions to Avoid:**

Highly toxic fumes may form upon contact with acids or acid fumes.

**Incompatible Materials:**

Acids and acid fumes, freshly abraded aluminum surfaces (may cause a strong exothermic reaction) and chemically active metals such as potassium, calcium, powdered aluminum, magnesium and zinc.

**Hazardous decomposition products:**

Under certain conditions fluorocarbon vapors may form when the product comes in contact with flames or hot surfaces creating a potential health hazard of inhalation of toxic fluorocarbons.

## Section 11 - TOXICOLOGICAL INFORMATION

**Information on Routes of Exposure:****(Eye/Skin), Inhalation**

**Inhalation:** LC50 (4 hr.) Rat > 207,700 ppm

Excessive inhalation may cause drowsiness and dizziness. High concentrations may dilute oxygen in the air resulting in asphyxiation. Non-occupational exposure and accidental or abusive inhalation of aerosols due to fluorocarbon propellants have also been documented, the main symptoms being CNS depression and cardiovascular reactions.

**Eye Contact:** Liquid contact can cause irritation and may cause frostbite.

**Skin Contact:** May cause dryness or defatting. Liquid contact could cause frostbite.

**Ingestion:** Product is a gas. Not a likely route of exposure.

## Section 12 - ECOLOGICAL INFORMATION

**Ecotoxicity:****Component Analysis - Aquatic Toxicity:**

Material is not considered harmful to the environment.

**Persistence and Degradability:**

No data available

**Bioaccumulative Potential:**

Material will not bioconcentrate in fish and aquatic organisms nor will it absorb to sediment and suspended organic matter.

**Mobility in soil:**

Moderate to high mobility in soil

**Other adverse effects:**

No data available

**This product does not contain persistent, bioaccumulative and toxic chemicals (PBT's) nor does this product any very persistent and very bioaccumulative chemicals (vPvB's).**

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### Section 13 - DISPOSAL CONSIDERATIONS

#### Disposal Methods:

Dispose of in accordance with local, state and federal regulations.

#### Component Waste Numbers:





The U.S. EPA has not published waste numbers for this products components.

**Additional Disposal Considerations:** Dispose of if shelf life has been exceeded.

### Section 14 - TRANSPORT INFORMATION

**Emergency Response Guide Number:** 126

#### Shipping Information:

Agency	Proper Shipping Name	UN#	Hazard Class	Label
DOT/TGD	Consumer Commodity or LTD QTY	ID8000	Consumer Commodity	 or 
Sea Transport IMDG/GGV SEA	Liquefied Gas, N.O.S (1,3,3,3-Tetrafluoropropene)	UN3163	Class 2.2 EmS FC,SV	
Air Transport - ICAO-TI & IATA-DGR	Liquefied Gas, N.O.S (1,3,3,3-Tetrafluoropropene)	UN3163	Class 2.2	

#### Environmental Hazards:

None

#### International Bulk Chemical Code:

The product does not have any chemicals required by the IBC Code to be defined as dangerous chemicals in bulk.

### Section 15 - REGULATORY INFORMATION

#### U.S. Federal Regulations

None of this product's components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

**SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories [Classification according to SARA Section 311/312.]:**

Not Classified

#### EPA Ozone Depleting Substances – Montreal Protocol

**None of this product's components are on the list**

#### U.S. State Regulations

None of this product's components are listed on the state lists from MA, MN, NJ or PA.

**The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):**

**Not listed under California Proposition 65**

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### Canada Regulations:

#### CEPA – Priority Substance list

None of this product's components are on the list.

#### Ozone Depleting Substances:

None of this product's components are on the list

#### Council of Ministers of the Environment – Soil Quality Guidelines

None of this product's components are on the list.

#### Council of Ministers of the Environment – Water Quality Guidelines

None of this product's components are on the list.

### Section 16 - OTHER INFORMATION

*HMIS and NFPA Ratings are not required, but are often found in Section 16.*

#### HMIS Rating

Health: [1] Fire: [0] Reactivity: [0] Other:

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

#### NFPA Ratings

Health: [1] Fire: [0] Reactivity: [0] Other:

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

#### REVISION HISTORY

REVISION	DATE	ECN #	Author	CHK BY	APPR. BY	DESCRIPTION OF CHANGE
Original	11/05/19		PMc	ES	PMc	Original SDS – New Product

#### Key / Legend:

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania\*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL), KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; Ne- Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

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### Other Information:

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