Safety Data Sheet

ANSI Z400.1/Z129.1-2010

Endo Ice® Refrigerant Spray

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Endo Ice® Refrigerant Spray

Product Code(s): H05032, 3-P00380, 40002168

Relevant identified uses of the mixture and uses advised against: Utilized in dentistry for pulp testing. Federal law restricts this device to sale by or on the order of a physician. Uses advised against: None noted.

Synonyms: Endo Ice

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Copies of this SDS can be found at www.coltene.com

Section 2: HAZARDS IDENTIFICATION

Classifications: Simple Asphyxiant, Specific Target Organ Toxicant – Single Exposure (STOT-SE) Category 3, Compressed Gas

Appearance: Aerosol, Clear, Colorless Gas / Spearmint Scented
Contains: 1,1,1,2 Tetraflouroethane
Route(s) of Exposure: Dermal, Eye, Inhalation

Labeling Elements:

Hazard Category
Simple Asphyxiant;
STOT-SE Category 3;
Compressed Gas

Signal Word:
Warning

Hazard Statements:
May displace oxygen and cause rapid suffocation. May cause respiratory irritation; or May cause drowsiness or dizziness. Contains gas under pressure; may explode if heated.

Prevention:
Avoid breathing gas. Use in a well-ventilated area.

Response:
If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell.

Storage:
Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal:
Dispose of contents/container in accordance with local/ regional/ national/ international regulations.

Other hazards which do not result in classification: Vapors may cause dizziness or asphyxiation without warning. Vapors from liquefied gas are initially heavier than air and spread along ground. Contact with gas may cause severe injury and/or frostbite. In contact with open flame or very hot surface fluorocarbons may decompose into highly irritating & toxic gases.

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

~Verified on 2014-10 by Henry Schein to be the most current version of the SDS. To be verified again on 2017-10. ~

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substance	CAS	EC Number	Index Number	Percent (w/w%)
1,1,1,2 Tetraflouroethane	811-97-2	212-377-0	none	>90

Section 4: FIRST AID MEASURES

Inhalation: Move victim to fresh air. Call 911 or emergency medical service. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.

Eyes: Irrigate exposed eyes with copious amounts of room temperature water for at least 15 minutes. If irritation, pain, swelling, lacrimation, or photophobia persist, the patient should be seen in a health care facility.

Skin: Remove contaminated clothing and wash exposed area thoroughly with soap and water. A physician may need to examine the area if irritation or pain persists.

Ingestion: Not a likely route of exposure.

Section 5: FIRE FIGHTING MEASURES

Gas is not flammable at ambient temperatures and atmospheric pressure. However, this material may become combustible when mixed with oxygen or air under pressure or air above atmospheric pressure. Containers may rupture or explode under fire conditions.

Extinguishing Media: if material involved in fire: extinguish fire using agent suitable for type of surrounding fire. Cool all affected containers with flooding quantities of water. Apply water from as far a distance as possible.

Specific Hazards Arising from the Chemical: fluorocarbons will undergo thermal decomposition when exposed to flame or red-hot metal. Decomposition products of the chlorofluorocarbons will include hydrofluoric & hydrochloric acid along with smaller amounts of phosgene & carbonyl fluoride. The last compound is very unstable to hydrolysis & quickly changes to hydrofluoric acid & carbon dioxide in the presence of moisture.

Protective Equipment and Precautions for Firefighters: standard protection for all firefighters stated in this subsection of the SDS text should include self-contained breathing apparatus (SCBA) and full firefighting turn-out gear (Bunker gear).

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: use personal protection recommended in Section 8.

Methods for Containment and Clean-up: Ventilate contaminated area, remove all sources of ignition, stop or reduce discharge if it can be done safely.

Other Information: none noted

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling: use with adequate ventilation, do not use near ignition sources.

Conditions for Safe Storage, Including Incompatibilities: store in a cool, dry location. Do not store at temperatures above 120ºF.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Component Exposure Limits:

Component:	Concentration:	NIOSH REL:	OSHA PEL:	IDLH:	AIHA WEEL	STEL's	Notation
1,1,1,2 Tetraflouroethane	>90%w/w	None	None	None	8-hr TWA 1000 ppm	None	None

Appropriate Engineering Controls: sufficient exhaust & general ventilation should be provided to keep vapor concentration below recommended levels.

Personal Protective Equipment (Eyes and Face): wear safety goggles with side shields.

Personal Protective Equipment (Skin): wear protective gloves

Personal Protective Equipment (Respiratory): none required for well-ventilated areas.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, Colorless Gas	Viscosity:	No data
Odor:	Spearmint	Odor Threshold:	No data
pH:	No data	Boiling Point:	No data
Melting Point:	No data	Solubility (H_2O):	Negligible; 0 – 1%
Specific Gravity:	No data	Density:	1.22 (H_2O = 1)
Octanol / H_2O Coefficient:	No data	Evaporation Rate:	0.5 - 2.0 (n-Butyl acetate = 1)
Molecular Weight:	No data	Decomposition Temp:	No data
Auto Ignition:	No data	LFL:	No data
Flash Point:	>93°C (>200°F)	UFL:	No data
Vapor Density:	[air = 1] 3.60	Vapor Pressure:	85.80 psig @ 70ºF
VOC:	No data	Flammability Class:	No data

Section 10: STABILITY AND REACTIVITY

Reactivity: reactive under specific conditions: such as very high temperatures and/or appropriate pressures.

Chemical Stability: chemically stable

Possibility of Hazardous Reactions: this product is not known to be susceptible to chemical reactions that can result in undesirable effect(s).

Conditions to Avoid: highly toxic fumes may form upon contact with acids or acid fumes.

Incompatibility: acids and acid fumes, freshly abraded aluminum surfaces (may cause strong exothermic reaction). Chemically active metals: potassium, calcium, powdered aluminum, magnesium, and zinc.

Hazardous Decomposition Products: under certain conditions, fluorocarbon vapors may decompose on contact with flames or hot surfaces, creating potential hazard of inhalation of toxic decomposition products (fluorocarbons).

Section 11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: dermal and inhalation (gases)

Acute Effects:

Eye Contact: Liquid contact can cause irritation. May cause frostbite.

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

Inhalation: Vapors may cause drowsiness and dizziness. High concentrations in 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.

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

Component Analysis (LD_{50} / LC_{50}): 1,1,1,2 Tetraflouroethane has an LC_{50} >500,000ppm. Data not available for dermal toxicity.

Sensitization: not a sensitizer.

Carcinogenicity: Endo Ice does not contain any substances classified as carcinogens by NTP, ACGIH, IARC or OSHA

Mutagenicity: not mutagenic

Reproductive Toxicity: not toxic for reproduction nor is this product tetrogenic.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: no data available.

Persistence / Degradability: Product is a gas at room temperature; therefore, it is unlikely to remain in water.

Bioaccumulative Potential: will not bioconcentrate in fish and aquatic organisms nor will it adsorb to sediment and suspended organic matter.

Mobility in Soil: moderate to high mobility in soil

Other Adverse Effects: none known.

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

Section 13: DISPOSAL CONSIDERATIONS

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

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

Section 14: TRANSPORT INFORMATION

Emergency Response Guide Number: 126

Agency	Proper Shipping name	UN-No.	Hazard Class	Label
DOT	Consumer Commodity	ID8000	Consumer Commodity (DOT–SP 10232)	Or similar
Sea Transport IMDG/GGV Sea	1,1 1,2-Tetrafluoroethane (Refrigerant Gas R 134a)	UN3159	2.2 EmS: FC,SV	
Air Transport ICAO-Ti and IATA-DGR	1,1,1,2-Tetrafluoroethane (Refrigerant Gas R 134a)	UN3159	2.2	

Section 15: REGULATORY INFORMATION

SARA Sections 302 and 304: This product does not contain Extremely Hazardous Substances (EHS) and is not subject to emergency planning requirements.

CERCLA: This product does not contain CERCLA Hazardous Substances and is not subject to reporting requirements.

SARA Section 313: Substances within this product are not required to be reported in accordance with SARA 313 or the substances within are exempt by rules for “de minimis concentrations of a toxic chemical in a mixture” §372.38(a).International

Inventories:

US (TSCA): The components within this product are included on the TSCA Inventory of Chemical Substances
Canada (DSL): All ingredients are on the inventory or exempt from listing.
European Union (EINECS): All ingredients conform to the EU requirements.
Japan (ENCS): All other ingredients are on the inventory or exempt from listing.
Philippines (PICCS): All other ingredients are on the inventory or exempt from listing.
South Korea (KECL): All ingredients are on the Inventory or exempt from listing.
Australia (AICS): All ingredients are on the Inventory or exempt from listing.
New Zealand (NZIoC): All ingredients are on the Inventory or exempt from listing.
China (IECSC): All ingredients are on the Inventory or exempt from listing.

The following components have been reviewed against state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
1,1,1,2 Tetraflouroethane	811-97-2	No	No	No	No	No	No

California Proposition 65: There are no chemicals within this mixture on the Proposition 65 List.

Canadian Regulations require the inclusion of the following statements under “Regulatory Information”: 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.

Section 16: OTHER INFORMATION

NFPA Ratings:

Health: 1
Fire: 1
Reactivity: 1

HMIS Ratings:

Health: 1
Fire: 1
Reactivity: 1

(NFPA and HMIS Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe)

REVISION HISTORY					
REVISION	DATE	ECN#	CHG BY	APPR BY	DESC. OF CHANGE
A	8/7/2014	14306	SBL	SBL	Updated MSDS to GHS/SDS Format. 48230 Revision A supersedes 48138 Revision A.

The information and recommendations set forth herein are presented in good faith and are believed to be correct as of the date hereof. Coltène/Whaledent Inc., however, makes no representations as to the completeness of this information and supplies it on the condition that the persons receiving same will make their own determination as to its suitability of their purposes prior to use. In no event will Coltène/Whaledent Inc. be responsible for damages of any nature whatsoever resulting from use of or reliance upon information.

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