

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

078914913

**The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).**

078359776 078359784 078359966 078431483 078490180 078595778 078595786 078600847 078684385 078692475

078714526 078908137 078943049 078943312 078946470 078946472

## Safety Data Sheet

Revision Date: 11/30/2020

### SEC. 1. PRODUCT & COMPANY IDENTIFICATION

**Product Name:** Verruca-Freeze®

**Product Use:** Cryosurgical Treatment

**Synonyms:** Mixture of Tetrafluoroethane, Pentafluoroethane, Trifluoroethane

**Manufacturer:** CryoSurgery, Inc.

5829 Old Harding Pike, Nashville, TN 37205

**Emergency Contact:** INFOTRAC

1-800-535-5053 (US & Canada)

1-352-323-3500 (International)

### SEC. 2. HAZARDS IDENTIFICATION

**GHS Classification:** Non-Flammable Aerosol

**Signal Word:** Danger

**Hazard Statement:** H229: Pressurized Container

**Pictogram:**



#### Precautionary Statements:

P251: Do not pierce or burn, even after use  
P410 + P412: Protect from sunlight. Do not expose to temperatures exceeding 50°C / 120°F

#### Potential Health Effects

**Skin:** Contact with liquid or refrigerated gas can cause frostbite. May also cause skin irritation, discomfort, itching, redness, or swelling.

**Eyes:** Contact with liquid or refrigerated gas can cause cold burns and frostbite. May also cause eye irritation, tearing, redness, or discomfort.

**Inhalation:** Symptoms potentially related to misuse or intentional inhalation abuse of components in large quantities include: anaesthetic effects, light-headedness, dizziness, confusion, incoordination, drowsiness, unconsciousness, irregular heartbeat with a strange sensation in the chest, heart thumping, apprehension, feeling of fainting, dizziness or weakness.

*This Safety Data Sheet adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.*

**Carcinogenicity:** None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

### SEC. 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number
1,1,1-Trifluoroethane	420-46-2
Pentafluoroethane	354-33-6
1,1,1,2-Tetrafluoroethane	811-97-2

### SEC. 4. FIRST AID MEASURES

**Skin Contact:** Flush area with lukewarm water. If frostbite has occurred, call a physician.

**Eye Contact:** Immediately flush eyes with water for at least 15 minutes. Call a physician.

**Inhalation:** Remove from exposure, lie down. Artificial respiration and/or oxygen may be necessary. Call a physician.

### SEC. 5. FIREFIGHTING MEASURES

#### Flammable Properties

**Flash Point:** Does not flash

#### Lower Explosion Limit:

Method: None per ASTM E681

#### Upper Explosion Limit:

Method: None per ASTM E681

**Fire and Explosion Hazard:** Cylinders are equipped with pressure and temperature relief devices, but may still rupture under fire conditions. Decomposition may occur. This substance is not flammable in air at temperatures up to 100°C (212°F) at atmospheric pressure. However, mixtures of this substance with high concentrations of air at elevated pressure and/or temperature can become combustible in the presence of an ignition source.

**Suitable Extinguishing Media:** Extinguishant for other burning material in area is sufficient.

**Firefighting Instructions:** Use water spray or fog to protect the firefighters.

### SEC. 6. ACCIDENTAL RELEASE MEASURES

**NOTE:** Review **FIRE FIGHTING MEASURES** and **HANDLING (PERSONNEL)** sections before proceeding with cleanup. Use appropriate personal protective equipment during cleanup.

**Safeguards (Personnel):** Ventilate area, especially low or enclosed places where heavy vapors might collect.

**Accidental Release Measures:** Avoid open flames and high temperatures.

### SEC. 7. HANDLING AND STORAGE

**Handling (Personnel):** This product is considered safe under normal and anticipated handling conditions of temperatures and pressure. Avoid breathing vapors and contact with eyes. For personal protection, see section 8. Handle in accordance with good industrial hygiene and safety practice.

**Storage:** Store canister away from sunlight in a cool, dry, well-ventilated location. Do not expose to direct sunlight or temperatures above 50°C (122°F) or store near heat or open flame.

### SEC. 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Local exhaust should be used when large amounts are released. Mechanical ventilation should be used in low or enclosed places.

#### Personal Protective Equipment

**Respiratory Protection:** Under normal manufacturing conditions, no respiratory protection is required when using this product.

**Hand Protection:** Impervious gloves may be worn to protect hands from possible splashing.

**Eye Protection:** Wear safety glasses with side shields. Additionally, wear a face shield where the possibility exists for face contact due to splashing, spraying or airborne contact with this material.

**Protective Measures:** Self-contained breathing apparatus (SCBA) for large release.

**Exposure Guidelines**

**Exposure Limit Values:**

1,1,1-Trifluoroethane AEL\*

1,000 ppm 8 & 12 hr. TWA

Pentafluoroethane AEL\*

1,000 ppm 8 & 12 hr. TWA

1,1,1,2-Tetrafluoroethane AEL\*

1,000 ppm 8 & 12 hr. TWA

*\*AEL is CryoSurgery's **Acceptable Exposure***

***Limit.** Where governmentally imposed*

*occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.*

**SEC. 9. PHYSICAL & CHEMICAL PROPERTIES**

**Form:** Liquefied gas

**Color:** Colorless

**Odor:** Slight, ether-like

**Melting Point:** Not available for this mixture

**Boiling Point:** -46.2°C (-51.2°F)

**% Volatile:** 100%

**Vapor Pressure:** 12,546 hPa at 25°C (77°F)

**Specific Gravity:** 1.05 at 25°C (77°F)

**Water Solubility:** Not determined

**Vapor Density:** 3.4 at 25°C (77°F) and 1013 hPa (Air = 1.0)

**Evaporation Rate:** > 1 (CCL4 = 1.0)

**SEC. 10. STABILITY & REACTIVITY**

**Stability:** Stable at normal temperatures and storage conditions.

**Conditions to Avoid:** Avoid open flames and high temperatures.

**Incompatibility:** Alkali metals, alkaline earth metals, powdered metals, powdered metal salts

**Hazardous Decomposition Products:**

Decomposition products are hazardous.

This material can be decomposed by high temperatures (open flames, glowing metal surfaces, etc.) forming hydrofluoric acid and possibly carbonyl fluoride. These materials are toxic and irritating. Avoid contact with decomposition products.

**Hazardous Reactions:** Polymerization will not occur.

**SEC. 11. TOXICOLOGICAL INFORMATION**

**NOTE:** This product is considered safe under normal conditions. Toxicological information is based on exposure in large quantities.

**Dermal:** Not applicable

**Oral:** No data available

**Inhalation 4 h LC50:** >500000 ppm; rat; test substance 1,1,1,2-tetrafluoroethane

**Skin Irritation:** Not expected to cause skin irritation based on expert review of the properties of the substance.

**Eye Irritation:** Not expected to cause eye irritation based on expert review of the properties of the substance.

**Respiratory or Skin Sensitization:** Not expected to cause sensitization based on expert review of the properties of the substance. There are no reports of human respiratory sensitization.

**Repeated Dose Toxicity:** Inhalation, rat; no toxicologically significant effects were found.

**Carcinogenicity:** Animal testing did not show any carcinogenic effects.

**Mutagenicity:** Not mutagenic in AMES Test

**Cardiac Sensitisation Threshold Limit:** dog;

1,1,1-trifluoroethane >250000 ppm;

pentafluoroethane 75000 ppm;

1,1,1,2-tetrafluoroethane 80000 ppm

**Other Information:** Avoid skin contact with leaking liquid (danger of frostbite).

**SEC. 12. ECOLOGICAL INFORMATION**

**Aquatic Toxicity:** No data available

**Biodegradability:** Not readily biodegradable

**SEC. 13. DISPOSAL CONSIDERATIONS**

**Waste Disposal:** Dispose of contents/ container in accordance with Federal, State/ Provincial, and Local Regulations. Never puncture or incinerate containers.

**SEC. 14. TRANSPORT INFORMATION DOT**

**UN Number:** 3163

**Proper Shipping Name:** Liquefied Gas, N.O.S. > Non-Flammable

**Class:** 2.2

**Labeling Number:** 2.2

**Special Permit:** 12187, 12783

**IATA\_C**

**UN Number:** 3163

**Proper Shipping Name:** Liquefied Gas, N.O.S. > Non-Flammable

**Class:** 2.2

**Labeling Number:** 2.2

**IMDG**

**UN Number:** 3163

**Proper Shipping Name:** Liquefied Gas, N.O.S. > Non-Flammable

**Class:** 2.2

**Labeling Number:** 2.2

**SEC. 15. REGULATORY INFORMATION**

**SARA 313 Regulated Chemical(s):** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**California Prop. 65:** Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known

**SEC. 16. OTHER INFORMATION**

**Revision Date:** 11/30/2020

The information provided in this Safety Data Sheet is correct to the best of our knowledge. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

*This Safety Data Sheet document has been formatted for inclusion in all Verruca-Freeze® Kits and Replacement Canisters.*