



Histological Freezing Spray

1. Identification

Product Name: Histological Freezing Spray

Item #: 6745

Web SDS: S91

Synonyms: N/A

Recommended Use: For Use as a Cell and Tissue Freezing Spray in Histology Laboratories.

Restrictions on Use: Any use other than recommended. For professional use only.

Manufacturer:

BBC Biochemical
409 Eleanor Lane,
Mount Vernon, WA 98273
1-800-635-4477

In Case of Emergency:

Chemtrec US 1-800-424-9300
Chemtrec International 703-527-3887

2. Hazards Identification

OSHA Hazard Classification(s):

Gases Under Pressure - Category Compressed Gas

Signal Word: Warning

Hazard Statement(s): Contains gas under pressure; may explode if heated

Pictogram(s):



Precautionary Statement(s): Prevention: N/A

Response: N/A

Storage: Protect from sunlight. Store in a well-ventilated place.

Disposal: N/A

Descriptions of Hazards not otherwise classified: N/A

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Tetrafluoroethane	1,1,1,2-Tetrafluoroethane	811-97-2	100

4. First Aid Measures

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

Symptoms: Irritation eyes, nose, throat; headache, dizziness, drowsiness, dullness; frostbite (on contact with liquid)

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell.

5. Fire- Fighting Measures

Extinguishing Media: Dry chemical, carbon dioxide, alcohol foam, water.

Fire Hazards (Chemical): Not flammable.



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Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Carbon monoxide and unidentified organic compounds may be formed during combustion.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product. This product contains a liquefied propellant which will expel as a non-cooling gas if can is held sideways, upside down, or shaken during use. If sprayed for extended time, container will become very cold and the pressure will weaken. To avoid discomfort, spray short blasts or wear gloves to insulate hands.

Storage: Protect from sunlight. Store in a cool, well-ventilated place. Store away from heat and sources of ignition. Store away from heat sources. Avoid temperatures in excess of 120F. Store between 15°C and 30°C (59°F and 86°F).

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
Tetrafluoroethane	811-97-2	1000ppm MAX

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
N/A			

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Colorless, Gas under pressure

Molecular Weight: 102.0

Molecular Formula: C₂H₂F₄

pH: N/A

Boiling Point and Boiling Range: -26.2°C

Melting Point/Freezing Point: -101°C

Flash Point: N/A

Specific Gravity/Relative Density: N/A

Odor: Slight ethereal odor

Odor Threshold: N/A

Color: Colorless

Flammability (solid/gas): N/A

Vapor Density: N/A

Upper/Lower flammability or explosive limits: N/A

Vapor Pressure: 630 kPa @ 25°C

Evaporation Rate: N/A



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Partition Coefficient: n-octanol/water: N/A

Viscosity: N/A

Auto-ignition temperature: N/A

Solubility: N/A

Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity:

Chemical Stability: Stable

Conditions of Stability/Instability: Stable under normal conditions of temperature and pressure.

Stabilizers needed: None

Safety issue indicated by appearance change: N/A

Other: N/A

Hazardous Reactions: N/A

Hazardous Polymerization: Does not occur

Conditions to avoid: N/A

Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases

Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire. Carbon dioxide, Carbon monoxide, Hydrogen Fluoride, Carbonyl Halides.

11. Toxicological Information

Likely Routes of Exposure

Eyes: May cause frostbite. Vapors can irritate eyes.

Skin: Irritation. May cause irritation, even a burn. Repeated contact may cause drying or flaking of skin.

Inhalation: Vapors may readily accumulate in confined or poorly ventilated areas leading to unconsciousness and death

Ingestion: Irritant to the gastrointestinal system, nausea.

Signs or Symptoms of Exposure: Excessive exposure may cause loss of coordination, asphyxiation. Contact with liquid can cause eye or skin frostbite.

Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea, drowsiness, dullness; frostbite (on contact with liquid)

Acute Toxicity (Numerical Measures): N/A

Carcinogenicity (NTP, IARC, OSHA): Not listed as a carcinogen.

12. Ecological Information

Ecotoxicity: N/A

Persistence and degradability: N/A

Bioaccumulation Potential (octanol-water partition coefficient, BCF): N/A

Mobility in the soil: N/A

Adverse Environmental Effects: N/A

13. Disposal Considerations

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: Not regulated.



Safety Data Sheet

Histological Freezing Spray

UN Proper Shipping Name:
Transport Hazard Class(es):
Packing Group Number:
Environmental Hazards (IMDG code):
Marine Pollutant:
Transport in Bulk (IBC Code):
Special Transport Precautions:

15. Regulatory Information

OSHA: N/A
DOT: N/A
EPA: N/A
CPSC: N/A



Safety Data Sheet

Histological Freezing Spray

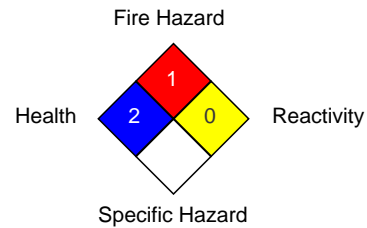
16. Other Information

Revision Date: 03/07/2017

NFPA

Health	2
Fire Hazard	1
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



HMIS

Health	2
Flammability	1
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	2
Flammability	1
Physical Hazard	0
Personal Protection	

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