

Specification Sheet

Chemical Name		CAS No.
Bis(2,2,2-trifluoroethyl) carbonate		1513-87-7
Testing Parameters	Testing Method	Specification
Appearance	Visual Inspection	Colorless clear liquid
Moisture (ppm)	Karl Fisher	≤150
Purity (wt%)	GC	≥99.50
Acidity/HF (ppm)	Titration	≤250



Safety Data Sheet (SDS)**Bis(2,2,2-trifluoroethyl) carbonate (BTFC)****CAS Number:** 1513-87-7**SECTION 1: IDENTIFICATION**

- **Product Name:** Bis(2,2,2-trifluoroethyl) carbonate
- **CAS Number:** 1513-87-7
- **Recommended Use:** Laboratory chemical, synthesis of substances
- **Uses Advised Against:** Non-exempt commercial purposes under TSCA
- **Supplier:** Automat Solutions, Inc.
- **Emergency Contact:** 510-982-6488

SECTION 2: HAZARD IDENTIFICATION

- **GHS Classification:**
 - Flammable liquid – Category 3
 - Skin irritation – Category 2
 - Eye irritation – Category 2A
- **Signal Word:** Warning
- **Hazard Statements:**
 - H226: Flammable liquid and vapor
 - H315: Causes skin irritation
 - H319: Causes serious eye irritation
- **Precautionary Statements:**
 - P210: Keep away from heat, sparks, open flames, hot surfaces. No smoking
 - P233: Keep container tightly closed
 - P280: Wear protective gloves, clothing, eye/face protection
 - P305+P351+P338: IF IN EYES: Rinse with water, remove contact lenses if possible, continue rinsing



- P303+P361+P353: IF ON SKIN: Take off contaminated clothing. Rinse skin with water/shower
- P403+P235: Store in a well-ventilated place. Keep cool
- P501: Dispose of contents/container at approved waste facility

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	% Composition
Bis(2,2,2-trifluoroethyl) carbonate	1513-87-7	≥90 – ≤100%

SECTION 4: FIRST AID MEASURES

- **Inhalation:** Move to fresh air. Seek medical attention if symptoms persist.
- **Skin Contact:** Remove contaminated clothing. Rinse thoroughly with water.
- **Eye Contact:** Rinse thoroughly for several minutes. Seek medical attention.
- **Ingestion:** Do not induce vomiting. Rinse mouth. Drink water. Seek medical attention.
- **Most Important Symptoms:** Irritation of eyes and skin

SECTION 5: FIRE-FIGHTING MEASURES

- **Extinguishing Media:** Water spray, foam, dry powder, CO₂
- **Hazards:** Flammable. Vapors may form explosive mixtures with air
- **Hazardous Combustion Products:** Carbon oxides, hydrogen fluoride
- **Protective Equipment:** SCBA and full protective gear
- **Additional Info:** Cool container with water spray. Prevent runoff into drains

SECTION 6: ACCIDENTAL RELEASE MEASURES

- **Personal Precautions:** Avoid inhalation and contact. Ensure proper ventilation
- **Environmental Precautions:** Do not allow product to enter drains. Risk of explosion
- **Cleanup Procedures:** Absorb with inert material (e.g. Chemizorb®), collect and dispose of properly

SECTION 7: HANDLING AND STORAGE



- **Handling:** Avoid vapor inhalation. Ground containers. Use explosion-proof equipment
- **Storage:** Keep tightly closed in dry, well-ventilated area. Store away from ignition sources
- **Storage Class:** 3 (Flammable Liquids)
- **Recommended Temp:** Refer to label (typically ambient)

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

- **Exposure Limits:** No occupational limits established
- **Engineering Controls:** Adequate ventilation required
- **PPE:**
 - **Respiratory:** ABEK filter when vapors/aerosols present
 - **Hands:** Protective gloves
 - **Eyes:** Safety goggles (NIOSH or EN 166 compliant)
 - **Skin:** Flame retardant antistatic clothing
 - **Hygiene:** Wash hands and face after handling

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance:** Colorless liquid
- **Boiling Point:** 65–66 °C (at 133 hPa)
- **Flash Point:** 29 °C (84 °F)
- **Density:** 1.5055 g/cm³
- **Molecular Weight:** 226.07 g/mol
- **Water Solubility:** Not determined
- **Autoignition Temp:** No data
- **Explosive Limits:** Not available

SECTION 10: STABILITY AND REACTIVITY

- **Reactivity:** Vapors may form explosive mixtures under heating



- **Stability:** Stable under ambient conditions
- **Incompatible Materials:** Strong oxidizing agents
- **Hazardous Decomposition Products:** Carbon oxides, hydrogen fluoride

SECTION 11: TOXICOLOGICAL INFORMATION

- **Skin Irritation:** Causes irritation
- **Eye Irritation:** Causes serious eye irritation
- **Respiratory Sensitization:** Not classified
- **Mutagenicity / Carcinogenicity / Reproductive Toxicity:** No data available
- **Acute Toxicity:** No data available

SECTION 12: ECOLOGICAL INFORMATION

- **Ecotoxicity / Persistence / Bioaccumulation / Mobility:** No data available
- **Ozone-Depletion:** Not manufactured with Class I or II ozone-depleting substances

SECTION 13: DISPOSAL CONSIDERATIONS

- **Waste Disposal:** Dispose of in compliance with local, state, and federal laws. Do not mix with other waste

SECTION 14: TRANSPORT INFORMATION

- **UN Number:** UN1993
- **Proper Shipping Name:** Flammable Liquid, n.o.s. (Bis(2,2,2-trifluoroethyl) carbonate)
- **Class:** 3
- **Packing Group:** III
- **Labels:** Flammable Liquid
- **Marine Pollutant:** No
- **ERG Code:** 128

SECTION 15: REGULATORY INFORMATION

- **TSCA:** Not listed



- **SARA 302, 304, 313:** Not subject
- **Clean Air/Water Act:** Not listed
- **State Regulations (MA, VT, WA):** Not listed

SECTION 16: OTHER INFORMATION

- **Revision Date:** May 7, 2025
- **Disclaimer:** This SDS is provided as a safety guideline and does not constitute a warranty. Automat Solutions, Inc. is not responsible for misuse of this product.

