

# SAFETY DATA SHEET



Date Issued: 04/20/2023

SDS No: 2000

## 1. PRODUCT AND COMPANY IDENTIFICATION`

**PRODUCT NAME:** R1234yf Triple Seal  
**PRODUCT CODE:** BLA151

### DISTIBUTOR

AC Avalanche LLC  
809 110<sup>th</sup> Street  
Arlington, TX 76011

**Emergency Contact:** Ginger Stewart

**Customer Service:** 737-377-0194

### 24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC: 800-424-9300

## 2. HAZARDS IDENTIFICATION

### GHS CLASSIFICATIONS

#### Health:

Skin Sensitization, Category 1

#### Physical:

Flammable Gases, Category 1

Gases Under Pressure, Liquefied Gases

Skin irritation (Category 2),

Acute Toxicity,(Category 4), inhalation

### 2.1 GHS Label elements, including precautionary statements Symbol(s):



#### Signal Word: Warning Hazard statement(s)

H220: Extremely flammable gas

H280: Contains gas under pressure; may explode if heated.

H332: Harmful if inhaled.

H315: Causes skin irritation.

#### Precautionary statement(s) Prevention:

P210: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

P211: Do not spray on an open flame or other ignition source.

P251: Pressurized container: Do not pierce or burn, even after use.

P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

P264: Wash skin thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/ protective clothing/ eye protection/ face protection

#### Response:

P302 +P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340: IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

P332 + P313: If skin irritation occurs: Get medical advice/ attention. P362: Take off contaminated clothing and wash before reuse.

P377: Leaking gas fire: Do not extinguish unless leak can be stopped safely.

P381: Eliminate all ignition sources if safe to do so.

**Storage:**

P403 + P410: Protect from sunlight. Store in a well-ventilated place. P412: Do not expose to temperatures exceeding 50°C/122°F

**Disposal:**

P501: Dispose of contents/ container to an approved waste disposal plant.

**HAZARDS NOT OTHERWISE CLASSIFIED:**

Liquid can cause burns similar to frostbite.

May displace oxygen and cause rapid suffocation.

May form explosive mixtures with air.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Name	Wt. %	CAS
Silane, ethenyltrimethoxy	12-18%	Proprietary
3-(2-aminoethylamino) Propyltrimethoxsilane	7-12%	1760-24-3
Methyltrimethoxsilane	2-5%	1185-55-3
Polyalkylene glycol	15-20%	9038-95-3
Isobutyl alcohol	10-15%	78-83-1
Di-acetone alcohol	<1%	123-42-2
Methanol	<1%	67-56-1
2,3,3,3-Tetrafluoropropane (R1234YF)	40-50%	754-12-1

**4. FIRST AID MEASURES**

**EYES:** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Get medical attention.

**SKIN:** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**INGESTION:** Do not induce vomiting. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Never give anything by mouth to a person who is not fully conscious.

Do not leave victim unattended.

Seek medical attention immediately.

**INHALATION:** Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get immediate medical attention if symptoms persist.

**SIGNS AND SYMPTOMS OF OVEREXPOSURE**

**SKIN:** Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.

**5. FIRE FIGHTING MEASURES**

**Flash Point:** >111 F (TCC)

**Suitable extinguishing media:** Alcohol-resistant foam. Carbon dioxide (CO<sub>2</sub>). Dry chemical.

**Unsuitable extinguishing media:** High volume water jet.

**Specific hazards during firefighting:** Do not allow run-off from firefighting to enter drains or water courses.

**Special protective equipment for fire-fighters:** Wear self-contained breathing apparatus for firefighting if necessary.

**Further information:** Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use water spray to cool fully

closed containers.

**Fire and explosion protection:** Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment.

Keep away from open flames, hot surfaces, and sources of ignition.

**Hazardous decomposition products:** Carbon Dioxide. Carbon oxides, phosgene gas, hydrochloric acid

## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Contain and soak up spill with absorbent material. Place residues in a suitable, sealed and labeled container.

**LARGE SPILL:** LARGE SPILLS: Shut off leak if safe to do so. Contain spill with inert, absorbent material. Reclaim into recovery or salvage drums or vacuum truck for proper disposal.

### ENVIRONMENTAL PRECAUTIONS

**WATER SPILL:** Prevent contamination of water. Prevent material from entering drains or watercourses using sand, earth or other appropriate barriers. Do not flush into surface water or sanitary sewer system.

**GENERAL PROCEDURES:** Do not touch or walk through spilled material. Remove all possible sources of ignition. Ensure adequate ventilation. Use appropriate personal protective equipment.

**SPECIAL PROTECTIVE EQUIPMENT:** Use protective equipment recommended in Section 8.

## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Avoid breathing of or direct contact with material. Only use in well-ventilated areas. Wash thoroughly after handling.

**HANDLING:** Avoid contact with skin, eyes, and clothing. Do not empty into drains.

**STORAGE:** Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Keep container tightly closed in a dry and well-ventilated place. Keep away from incompatible materials. Keep away from open flames, hot surfaces, and sources of ignition. Keep away from direct sunlight.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Provide adequate ventilation. Eye washes and showers for emergency use.

### PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Wear chemical splash goggles. Wear a full-face shield where splashing is likely.

**SKIN:** Wear chemically resistant gloves.

**RESPIRATORY:** Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the selected respirator.

**PROTECTIVE CLOTHING:** Wear protective clothing appropriate to the risk of exposure.

**WORK HYGIENIC PRACTICES:** Wash hands, forearms, and face before eating, drinking, smoking and using the restroom. Launder contaminated clothing before re-use.

### Exposure guidelines:

Ingredients	CAS#	Exposure Limits
Isobutyl Alcohol	78-83-1	ACGIH TLV 50 ppm OSHA PEL 50 ppm
Di-acetone alcohol	123-42-2	ACGIH TWA 50 PPM ASHA PEL 50 ppm
Methanol	67-56-1	ACGIH TWA 200 ppm OSHA PEL 200 ppm

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid.

**ODOR:** Slight ether-like odor

**COLOR:** Clear

**PHYSICAL STATE COMMENTS:** Compressed liquefied gas.

**FLASH POINT AND METHOD:** 167°C/332.6°F

**FLAMMABLE LIMITS:** Not Available

**AUTOIGNITION TEMPERATURE:** Not Available.

**VAPOR PRESSURE:** Not

Available **VAPOR DENSITY:** Not

Available **BOILING POINT:** Not

Available **FREEZING POINT:** Not

Available **SOLUBILITY**

**WATER:**Partially soluble

## 10. STABILITY AND REACTIVITY

**REACTIVITY:** Stable under normal conditions of use.

**STABILITY:** Stable under normal conditions.

**CONDITIONS TO AVOID:** Extreme temperatures and direct sunlight.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon oxides. Hydrogen fluoride and carbonyl fluoride if decomposition occurs at temperatures >250°C.

**INCOMPATIBLE MATERIALS:** Strong oxidizers. May react violently with alkaline-earth and alkali metals.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY

**DERMAL LD<sub>50</sub>:** No data available.

**ORAL LD<sub>50</sub>:** No data available.

**INHALATION LC<sub>50</sub>:** 1500 g/m<sup>3</sup> - rat (4h)

**NOTES:** Information given is based on the toxicology of the components in the mixture.

**SKIN CORROSION/IRRITATION:** May cause slight skin irritation.

**SERIOUS EYE DAMAGE/IRRITATION:** May cause mild irritation to the eyes. **RESPIRATORY OR SKIN SENSITISATION:** Not expected to be a

sensitizer. **GERM CELL MUTAGENICITY:** None expected.

### CARCINOGENICITY

**NOTES:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, ACGIH or OSHA.

**REPRODUCTIVE TOXICITY:** None expected.

**STOT-SINGLE EXPOSURE:** No data available.

**STOT-REPEATED EXPOSURE:** No data available.

## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** Ecotoxicological data have not been determined specifically for this product. The information below is given based on knowledge of the components.

**BIOACCUMULATION/ACCUMULATION:** Low potential for bioaccumulation.

**DISTRIBUTION:** Not Available.

**AQUATIC TOXICITY (ACUTE):** Ingredients toxic to aquatic life.

**CHEMICAL FATE INFORMATION:** Not Available.

## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** Dispose of contents/container to a licensed contractor or facility in accordance with local, state and federal regulations.

## 14. TRANSPORT INFORMATION

### DOT (DEPARTMENT OF TRANSPORTATION)

**PROPER SHIPPING NAME:** Liquefied gas, flammable, n.o.s. (2,3,3,3-Tetrafluoroprop-1-ene)

**PRIMARY HAZARD CLASS/DIVISION:** 2.1

**UN/NA NUMBER:** UN3161

**PACKING GROUP:** N/A

**PLACARDS:** Flammable gas

### AIR (ICAO/IATA)

**PROPER SHIPPING NAME:** Liquefied gas, flammable, n.o.s. (2,3,3,3-Tetrafluoroprop-1-ene)

**PRIMARY HAZARD CLASS/DIVISION:** 2.1

**UN/NA NUMBER:** UN3161

**PACKING GROUP:** N/A

**PLACARDS:** Flammable gas

### VESSEL (IMO/IMDG)

**PROPER SHIPPING NAME:** Liquefied gas, flammable, n.o.s. (2,3,3,3-Tetrafluoroprop-1-ene)

**PRIMARY HAZARD CLASS/DIVISION:** 2.1

**UN/NA NUMBER:** UN3161

**PACKING GROUP:** N/A

**PLACARDS:** Flammable gas

## 15. REGULATORY INFORMATION

### UNITED STATES

#### SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

**311/312 HAZARD CATEGORIES:** Delayed Health

**311/312 PHYSICAL HAZARDS:** Flammable Gases, Gases Under Pressure

**313 REPORTABLE INGREDIENTS:** None.

#### CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT)

**CERCLA REGULATORY:** Contains no CERCLA regulated ingredients at detectable levels.

**CERCLA RQ:** Not Applicable.

**CALIFORNIA PROPOSITION 65:** This product contains a chemical known to the State of California to cause cancer.

All the chemicals used in this product are TSCA listed.

Check with your local regulators to be sure all local regulations are met.

### COMMENTS

Global Chemical Inventories:

Canada (DSL) - All components are listed or

exempt. EEC ELINCS - All components are

listed or exempt. Japan (ENCS) - All

components are listed or exempt. Japan (ISHL) -

All components are listed or exempt. KECI

Annex1 - All components are listed or exempt.

Philippines - All components are listed or

exempt.

Taiwan - All components are listed or

exempt. US (TSCA) - All components listed

or exempt. Vietnam - All components are

listed or exempt.

## 16. OTHER INFORMATION

**REASON FOR ISSUE:** Original Version

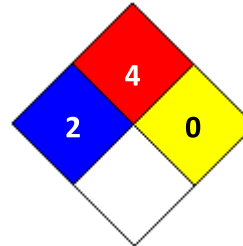
**APPROVED BY:** Ginger Stewart

**PREPARED BY:** Shrieve Chemical Products HSE Department

### HMIS RATING

HEALTH	<input type="checkbox"/>	2
FLAMMABILITY	<input type="checkbox"/>	4
PHYSICAL HAZARD	<input type="checkbox"/>	3
PERSONAL PROTECTION	<input type="checkbox"/>	

### NFPA CODES



**MANUFACTURER DISCLAIMER:** The information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the result of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.