

Safety Data Sheet

The Armor All/STP Products Company

44 Old Ridgebury Road
Suite 300
Danbury, CT 06810
Tel. 1-203-205-2900

1. Product And Company Identification

Product Name: Sub-Zero® Auto AC Recharge Refrigerant R-134a with Stop Leak
(SDS for product manufactured after 7/1/2017)

Product Number: 308V

Responsible Party: The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810

Information Phone Number: +1 203-205-2900

Emergency Phone Number:

For Medical Emergencies, call 1-866-949-6465 / +1 303-389-1332 (Outside US and Canada)
For Transportation Emergencies, call 1-800-424-9300 (Chemtrec) +1-703-527-3887 for
Outside US and Canada (call collect)

SDS Date of Preparation: 05/02/2018

Product Use and Uses Advised Against: Automotive maintenance product – For consumer and professional use

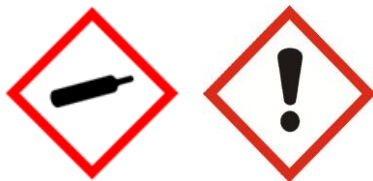
2. Hazards Identification

Note: This product is a consumer product and is labeled in accordance with the Consumer Product Safety Commission regulations and not OSHA regulations. The requirements for the labeling of consumer products take precedence over OSHA labeling so the actual product label will not contain the OSHA label elements shown below on this SDS.

GHS Classification:

Physical:	Health:
Gases Under Pressure: Compressed Gas	Skin Irritant Category 2 Eye Irritant Category 2B Simple Asphyxiant

GHS Label Elements:



Warning!

Statements of Hazard	Precautionary phrases
Contains gas under pressure; may explode if heated. Causes skin irritation. Causes eye irritation Simple Asphyxiant: May displace oxygen and cause rapid suffocation.	Prevention Wash thoroughly after handling. Wear protective gloves and eye protection. Protect from sunlight. Do not exposure to temperatures exceeding 50°C / 122°F.

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Precautionary phrases continued

Response

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 attention.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

3. Composition/Information on Ingredients

Component	CAS No.	Amount
1,1,1,2-tetrafluoroethane	811-97-2	85-90%
Linear alkylate additive	Trade Secret	10-15%
Polyalkylene glycol monobutyl ether	9003-13-8/9038-95-3	5-10%
Dibasic acid ester	Trade Secret	5-10%

The specific identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

Inhalation: If symptoms of exposure develop, remove to fresh air. Seek medical attention if breathing problem or irritation persists.

Skin Contact: Wash exposed skin with soap and water. If skin irritation or redness develops, seek medical attention. For frostbite: warm injured area in warm (tepid) water.

Eye Contact: Flush eyes with large amounts of water for several minutes. If irritation or other symptoms develop, seek medical attention.

Ingestion: Ingestion is an unlikely route exposure for gases.

Most Important Symptoms: Causes eye and skin irritation. Direct contact with escaping gas under pressure may cause frostbite. Mists may cause mild respiratory irritation. Exposure to high concentrations can induce anesthetic effects progressing from dizziness, weakness, nausea, to unconsciousness.

Indication of Immediate Medical Attention/Special Treatment: None known.

5. Firefighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use extinguishing media suitable for surrounding fire. Cool fire exposed containers with water.

Specific Hazards Arising from the Chemical: Contents under pressure. Exposure of containers to heat and flames can cause them to rupture often with violent force. Burning may produce oxides of carbon and fluorine; and hydrogen fluoride.

Special Fire Fighting Procedures: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting cans.

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6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures: Ventilate the area. Wear appropriate protective clothing and equipment.

Methods and Materials for Containment and Clean-Up: Place leaking can in a pail in a well-ventilated area until pressure has dissipated. Collect residual liquid using inert absorbents and place into a suitable container for disposal.

Environmental Precautions: Report release as required by local and national regulations.

7. Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes and skin. Avoid breathing aerosol or gas. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Contents under pressure, do not puncture or incinerate containers.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, well-ventilated area, away from incompatible materials. Do not store in direct sunlight or above 120°F. **U.F.C. (NFPA 30B) Level 1 Aerosol.**

8. Exposure Controls / Personal Protection

Exposure Guidelines:

CHEMICAL	EXPOSURE LIMIT
1,1,1,2-tetrafluoroethane	1000 ppm TWA AIHA WEELs
Linear alkylate additive	Trade Secret
Polyalkylene glycol monobutyl ether	None established
Dibasic acid ester	Trade Secret

Appropriate Engineering Controls: General ventilation should be adequate for normal use. For operations where the exposure limits may be exceeded, forced ventilation such as local exhaust may be needed to maintain exposures below applicable limits.

Personal Protective Equipment

Respiratory Protection: None under normal use conditions. For operations where the exposure limits may be exceeded, a NIOSH approved supplied air respirators recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134; all applicable laws and regulations; and good industrial hygiene practice.

Gloves: Wear impervious gloves to avoid skin contact.

Eye Protection: Safety glasses are recommended if eye contact is possible.

Other Protective Equipment/Clothing: None required.

9. Physical and Chemical Properties

Appearance and Odor: Pressurized gas and light amber liquid with ethereal odor.

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Physical State: Gas and liquid	Odor Threshold: Not available
pH: Not determined	Specific Gravity: Not determined
Initial Boiling Point/Range: -15.2°F (-26.2°C) @ 736 mm Hg (1,1,1,2-tetrafluoroethane)	Vapor Pressure: 4730 mm Hg at 25°C (1,1,1,2-tetrafluoroethane)
Melting/Freezing Point: -149.8°F (-101°C) (1,1,1,2-tetrafluoroethane)	Vapor Density: (Air = 1) Not determined
Solubility In Water: Water solubility: 67 mg/l at 25°C (1,1,1,2-tetrafluoroethane)	Percent Volatile: >85%
Viscosity: Not determined	Evaporation Rate: (n-butyl acetate = 1.0): Not determined
Decomposition Temperature: Not available	VOC Content: Not determined
Coefficient Of Water/Oil Distribution: Not determined	Autoignition Temp: >662°F (>350°C) (1,1,1,2-tetrafluoroethane)
Flash Point: Not determined	Flame extension: Not determined
Flammability Limits: LEL: Not determined UEL: Not determined	Flammability (solid, gas): Not applicable

10. Stability and Reactivity

Reactivity: Not normally reactive

Chemical Stability: Stable under normal storage and handling conditions

Possibility of Hazardous Reactions: None known.

Conditions to Avoid: Keep away from excessive heat, and open flames. Containers may rupture at temperatures > 120°F (48.8°C)

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Burning may produce oxides of carbon and fluorine; and hydrogen fluoride.

11. Toxicological Information

Potential Health Effects:

Acute Hazards:

Inhalation: Mist can irritate the throat and respiratory tract. Exposure to high concentrations can induce anesthetic effects progressing from dizziness, weakness, nausea, to unconsciousness.

Skin Contact: Causes skin irritation. Direct contact with escaping gas under pressure may cause frostbite.

Eye Contact: Direct contact causes eye irritation with redness, and tearing.

Ingestion: Ingestion is an unlikely route exposure for aerosol products. Swallowing may cause gastrointestinal disturbances.

Chronic Effects: None expected.

Carcinogenicity Listing: None of the components listed is a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA

Numerical Measures of Toxicity:

1,1,1,2-tetrafluoroethane: LC50 Inhalation Rat: >500,000/4h
Polyalkylene glycol monobutyl ether: LD50 Oral Rat: >5,000 mg/kg
LD50 Skin Rabbit: >5,000 mg/kg

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Linear alkylate additive: LD50 Oral Rat > 2,000 mg/kg
LD50 Dermal Rabbit > 1,000 mg/kg

Dibasic acid ester: LD50 Oral Rat > 2,000 mg/kg
LD50 Dermal Rabbit > 1,000 mg/kg

12. Ecological Information

Ecotoxicity:

Polyalkylene glycol monobutyl ether: Testing of a similar substance indicates material is non-toxic to aquatic life.

Linear alkylate additive: Harmful to aquatic life.

Dibasic acid ester: Harmful to aquatic life.

Persistence and Degradability:

Polyalkylene glycol monobutyl ether: Expected to be partially or slowly biodegradable

Bio accumulative Potential:

Polyalkylene glycol monobutyl ether: Not expected to bio-accumulate.

Mobility in Soil:

Polyalkylene glycol monobutyl ether: Insoluble in water. Adsorbs to soil and has low mobility.

Other Adverse Effects: No data available

13. Disposal Considerations

Dispose of in accordance with all local, state/provincial and federal regulations. Offer empty containers for recycling.

14. Transport Information

DOT Hazardous Materials Description: UN3159, 1,1,1,2-Tetrafluoroethane, 2.2, DOT-SP 10232

IMDG Dangerous Goods Description: UN3159, 1,1,1,2-Tetrafluoroethane, 2.2, DOT-SP 10232

15. Regulatory Information

United States:

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA Section 103: This product has no RQ, however, oil spills must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Classified under OSHA Hazcom 2012 GHS as per Section 2 of this SDS.

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements under SARA Title III, Section 313 (40 CFR 372): None

Canada:

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian DSL.

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16. Other Information

NFPA Rating (NFPA 704): Health: 1 Fire: 0 Instability: 0
HMIS Rating: Health: 1 Fire: 0 Physical Hazard: 0

REVISION DATE: 5/2/2018

REVISION SUMMARY: Changes to Section 3.

DATE OF PREVIOUS REVISION: 3/6/2018

DATA SUPPLIED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH