

# 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:** AF-2  
SDS for product manufactured after 2/1/2017. Date code begins with the letter D.

**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:** 06/01/2017

**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	Simple Asphyxiant Skin Irritation Category 2 Eye Irritation Category 2B Reproductive Toxicity Category 2

#### GHS Label Elements:



#### Warning!

Statements of Hazard	Precautionary phrases
Contains gas under pressure; may explode if heated. Causes eye irritation. Causes skin irritation. Suspected of damaging fertility or the unborn child. Simple Asphyxiant: May displace oxygen and cause rapid suffocation.	<b>Prevention</b> Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Protect from sunlight. Do not exposure to temperatures exceeding 50°C / 122°F. Wear protective gloves, and eye protection. Wash thoroughly after handling.

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### Precautionary phrases continued

#### Response

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.  
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 exposed or concerned: Get medical attention.

### Precautionary phrases continued

#### Storage

Store locked up.

#### Disposal

Dispose of contents and container in accordance with local and national regulations.

## 3. Composition/Information on Ingredients

Component	CAS No.	Amount
1,1,1,2-tetrafluoroethane	811-97-2	80-90%
Poly[oxy(methyl-1,2-ethandiyl)], Alpha-butyl-omega-hydroxy	9003-13-8	10-15%
Elastomer seal swell for AC systems	Trade Secret	1-5%
Proprietary Oil Additive	Trade Secret	<1%

## 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.

**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. May cause mild respiratory irritation. Exposure to high concentrations can induce anesthetic effects progressing from dizziness, weakness, nausea, to unconsciousness. May damage fertility or the unborn child.

**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 fluoride; 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 empty container 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 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
Poly[oxy(methyl-1,2-ethandiyl)], Alpha-butyl-omega-hydroxy	None established
Elastomer seal swell for AC systems	None established
Proprietary Oil Additive	None established

**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:** None required with normal use.

**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 in.

**Physical State:** Gas.

**Odor Threshold:** Not available

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<b>pH:</b> Not determined	<b>Specific Gravity:</b> 0.995 (liquid component)
<b>Initial Boiling Point/Range:</b> -26.2°C @ 736 mm Hg (1,1,1,2-tetrafluoroethane)	<b>Vapor Pressure:</b> 4268 mm Hg at 20°C (1,1,1,2-tetrafluoroethane)
<b>Melting/Freezing Point:</b> -101 °C (1,1,1,2-tetrafluoroethane)	<b>Vapor Density:</b> (Air = 1.0): 3.3
<b>Solubility In Water:</b> Water solubility: 67 mg/l at 25°C (1,1,1,2-tetrafluoroethane)	<b>Percent Volatile:</b> 100%
<b>Viscosity:</b> Not determined	<b>Evaporation Rate:</b> (n-butyl acetate = 1.0): > 120
<b>Decomposition Temperature:</b> Not available	<b>VOC Content:</b> Not determined
<b>Coefficient Of Water/Oil Distribution:</b> Not determined	<b>Autoignition Temp:</b> >662°F (>350°C)
<b>Flash Point:</b> Not determined	<b>Flame extension:</b> Not determined
<b>Flammability Limits:</b> LEL: Not determined UEL: Not determined	<b>Flammability (solid, gas):</b> 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 fluoride; and hydrogen fluoride.

## 11. Toxicological Information

### Potential Health Effects:

#### Acute Hazards:

**Inhalation:** May 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.

**Eye Contact:** Causes eye irritation.

**Ingestion:** Ingestion is an unlikely route exposure for gas products.

**Chronic Effects:** None known

**Carcinogenicity Listing:** None of the components listed at 0.1% or greater 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

Poly[oxy(methyl-1,2-ethandiyl)], Alpha-butyl-omega-hydroxy:

LD50 Oral Rat: >5,000 mg/kg

LD50 Skin Rabbit: >5,000 mg/kg

Elastomer seal swell for AC systems: LD50 Oral Rat > 5,000 mg/kg

LD50 Dermal Rabbit > 1,000 mg/kg

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Proprietary Oil Additive: Not acutely toxic.

## 12. Ecological Information

### **Ecotoxicity:**

Poly[oxy(methyl-1,2-ethandiyl)], Alpha-butyl-omega-hydroxy: Testing of a similar substance indicates material is non-toxic to aquatic life.

Elastomer seal swell for AC systems: Harmful to aquatic life.

Proprietary Oil Additive: EC50 Daphnia magna (Water flea): 7,467 mg/l /48 hr.

### **Persistence and Degradability:**

Poly[oxy(methyl-1,2-ethandiyl)], Alpha-butyl-omega-hydroxy: Expected to be partially or slowly biodegradable

### **Bioaccumulative Potential:**

Poly[oxy(methyl-1,2-ethandiyl)], Alpha-butyl-omega-hydroxy: Not expected to bio-accumulate.

### **Mobility in Soil:**

Poly[oxy(methyl-1,2-ethandiyl)], Alpha-butyl-omega-hydroxy: 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

### **IMDG Dangerous Goods Description:**

UN3159, 1,1,1,2-Tetrafluoroethane, 2.2

## 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

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### Canada:

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

### 16. Other Information

NFPA Rating (NFPA 704):      Health: 1      Fire: 0      Instability: 0  
HMIS Rating:                      Health: 1\*      Fire: 0      Physical Hazard: 0  
\*Chronic health hazard.

REVISION DATE: 06/01/2017

REVISION SUMMARY: Product reformulation. Changes to all sections.

PREVIOUS REVISIONS DATE: 09/20/2016

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