



## Safety Data Sheet

### Petra R-134a Refrigerant with ICE 32 and UV Dye 9021

HMIS Ratings	
Health	1
Flammability	1
Reactivity	0
Protection	B

### Section 1: Identification

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<b>Product Name:</b>	Petra R-134a Refrigerant with ICE 32 and UV Dye
<b>Product Use:</b>	Refrigerant.
<b>Restrictions on Use:</b>	None known.
<b>Manufactured For:</b>	Petra Oil Company 6100 West by Northwest Blvd., Suite 190 Houston, TX 77040
<b>Phone Number:</b>	(713) 856-5700
<b>Fax Number:</b>	(713) 856-5712
<b>Emergency Phone:</b>	CHEMTREC 1-800-424-9300 For International Calls: (703) 527-3887

### Section 2: Hazard Identification

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<b>Hazard Class:</b>	Gases under Pressure – Compressed Gas, Skin Irritation Category 2, Simple Asphyxiant.
<b>Signal Word(s):</b>	Warning
<b>Hazard Statement:</b>	Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation. Causes skin irritation.

**Pictogram Classes:**



**Precautionary Measures:** Wash thoroughly after handling. Wear protective gloves. Take off contaminated clothing and wash before reuse. Protect from sunlight. Store in well-ventilated place. Do not expose to temperatures exceeding 50°C / 122°F.

**Miscellaneous Hazards:** Inhalation in high-concentrations may cause respiratory irritation and CNS depression. Vapor spray may cause freeze burns.

## Section 3: Composition/Information on Ingredients

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Chemical Name	CAS Number	Concentration (Wgt.%)
1,1,1,2-Tetrafluoroethane	811-97-2	30-70
Additive Mixture – Trade Secret	Proprietary Mixture	30-70
UV Dye	N/A	0-0.05
Non-hazardous and other ingredients below reportable levels	Proprietary	0-40

## Section 4: First Aid Measures

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**Skin Contact** Wash affected area with plenty of water. If irritation persists, seek medical advice.

**Eye Contact** Rinse cautiously with water for several minutes. Remove contact lenses if present/able. Continue rinsing. If eye irritation persists, get medical advice/attention.

**Inhalation** Move person to fresh air. Seek medical attention if problems develop or persist.

**Ingestion** Not an expected route of exposure.

**Notes for Immediate Care / Physician** N/A

## Section 5: Fire Fighting Measures

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**Hazardous Combustion Products:**

Carbon monoxide, carbon dioxide, HF, fluorinated hydrocarbons, and oxides of fluoride.

**Extinguishing Media:**

Use media appropriate for surrounding fire. Cool exposed containers with water.

**General Fire Hazards:**

Contents under pressure. Exposure to high heat may cause them to rupture with violent force.

**Fire Fighting Equipment and Instructions:**

Firefighters should wear full protective gear. Cool fire-exposed containers with water.

## Section 6: Accidental Release Measures

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### Personal Protection/PPE:

Wear safety glasses or goggles and gloves to avoid skin and eye contact.

### Emergency Procedures:

Ensure ventilation to avoid inhalation. Use caution, as large amounts of liquid may produce a slip hazard.

### Containment Procedures:

Stop the flow of material, if this is without risk. If can is leaking, place into pail or bucket in well-ventilated area until pressure has dissipated. Absorb with inert absorbent such as dry clay, sand, diatomaceous earth, or commercial sorbents. Shovel into appropriate container for disposal

### Cleanup Procedures:

Absorb spill with inert material. Shovel material into appropriate container for disposal.

## Section 7: Handling and Storage

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### Handling Procedures:

Avoid skin or eye contact with this material. Wash thoroughly after handling. Use with ventilation, and do not breathe aerosol. Contents are under pressure, so do not puncture or incinerate cans, even when 'empty.'

### Storage Procedures:

Store in cool, well-ventilated place. Store out of sunlight, at temperatures below 120°F.

## Section 8: Exposure Controls/Personal Protection

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Chemical	CAS Number	PEL-OSHA	Exposure Limits	
			TLV-ACGIH	Carcinogen
1,1,1,2-Tetrafluoroethane	811-97-2	N/A	N/A	No
Additive Mixture – Trade Secret	Proprietary Mixture	N/A	N/A	No
UV Dye	N/A	N/A	N/A	No
Non-hazardous and other ingredients below reportable levels	Proprietary	N/A	N/A	N/A

**Special Note:** 1,1,1,2-Tetrafluoroethane has an AIHA WEEL with 1000 ppm as the TWA 8 hour exposure limit.

### Engineering Controls:

Use local exhaust ventilation.

**Personal Protective Equipment:****Eyes/Face:**

Wear safety glasses or goggles if eye contact is possible.

**Skin:**

Use impervious gloves.

**Respiratory:**

If ventilation is not sufficient to effectively prevent buildup of vapor/mist/fume/dust, appropriate NIOSH/MSHA respiratory protection must be provided.

**General:**

Use good hygiene practices when handling this material, including changing and laundering work clothes after use.

## Section 9: Physical and Chemical Properties

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<b>Appearance:</b>	Bright yellow liquid in aerosol can
<b>Flammability Limits:</b>	Not applicable.
<b>Explosive Limits:</b>	Not applicable.
<b>Odor:</b>	None.
<b>Odor Threshold:</b>	Not available.
<b>Vapor Density:</b>	3.3 (Air 1.0)
<b>Vapor Pressure:</b>	4268 mmHg @ 20°C.
<b>pH:</b>	<7
<b>Relative Density:</b>	1.086
<b>Melting Point:</b>	-15.7°F (-26.5°C)
<b>Solubility:</b>	Negligible solubility in water.
<b>Initial Boiling Point/Boiling Range:</b>	572°F (300°C)
<b>Flash Point:</b>	348°F (176°C)
<b>Autoignition Temperature:</b>	>400°C
<b>Evaporation Rate:</b>	>120 (n-butyl acetate = 1.0)
<b>Partition Coefficient (n-octanol/water):</b>	Not available.
<b>Decomposition Temperature:</b>	Not available.
<b>Viscosity:</b>	25 cPa @ 20°C

## Section 10: Stability and Reactivity

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**Reactivity:**

Will react with strong oxidizing agents.

**Chemical Stability:**

This is a stable material. Container may explode at heat >120°F.

**Hazardous Decomposition:**

Hazardous combustion products may include carbon monoxide, carbon dioxide, and other hydrocarbon fragments, along with HF and fluorinated hydrocarbons.

**Hazardous Polymerization:**

Will not occur.

**Incompatible Materials:**

Strong oxidizing agents (peroxides, chlorine, strong acids).

**Conditions Leading to Hazard:**

Storage with strong oxidizers. Storage in heat, near ignition source, or by open flame.

## Section 11: Toxicological Information

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**Acute Toxicity Estimate – Oral:** >5000 mg/kg

**Acute Toxicity Estimate – Dermal:** >5000 mg/kg

**Reproductive Toxicity/Germ Cell Mutagenicity:** No ingredients with positive in vivo results.

**Skin/Inhalation Sensitization:** No known sensitizing components.

**Carcinogenicity:** No carcinogenic components.

## Section 12: Ecological Information

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Existing Structure Activity Relationship (SAR) and Experimental data on the components of this product indicate neither Acute or Chronic categorization. Bioaccumulation and other routes of aquatic contamination are not expected to be contributory.

None of the components of this product are listed in the Montreal Protocol or its Amendments. HFC-134a has a GWP of 1300.

## Section 13: Disposal Concerns

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Dispose of waste material in accordance with Local, State, Federal, and Provincial Environmental Regulations.

## Section 14: Transport Information

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**US DOT and International HMR Information**

<b>Proper Shipping Name:</b>	Aerosol, non-flammable, each not exceeding 1L capacity (HFC-134a)
<b>Identification Number:</b>	UN1950
<b>Hazard Class:</b>	2.2
<b>Special Note:</b>	Limited Quantity

## Section 15: Regulatory Information

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### US Federal Regulations

#### CERCLA/SARA – Section 313 – Emission Reporting

None.

#### EPA TSCA Inventory

All components listed.

### State Regulations

#### California – Proposition 65 – Carcinogens List

None.

## Section 16: Other Information

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### Disclaimer:

NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet. However, SDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by the vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.

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