

Enviro-Safe R-290 Refrigerant 8 oz

1	PRODUCT AND COMPANY IDENTIFICATION
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Product Identifier: Enviro-Safe R-290 Refrigerant 8 oz
SDS Number: 8000
Revision Date: 10/9/2024
Version: 2.5
Product Description: Refrigerant

Supplier Details: Enviro-Safe Refrigerants, Inc.
 400 Hanna Dr.
 Pekin, IL 61554

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Emergency: CHEMTREC 1-800-424-9300

2	HAZARDS IDENTIFICATION
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Classification of Substance

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Physical, Flammable Gases, 1
 Physical, Gases Under Pressure, Liquefied Gas

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



GHS Hazard Statements:

H220 - Extremely flammable gas
 H280 - Contains gas under pressure; may explode if heated

GHS Precautionary Statements:

P210 - Keep away from heat/sparks/open flames/hot surfaces.
 P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
 P381 - Eliminate all ignition sources if safe to do so.
 P410 + P403 - Protect from sunlight. Store in a well-ventilated place.

Hazards not Otherwise Classified (HNOC) or not Covered by GHS

3	COMPOSITION/INFORMATION ON INGREDIENTS
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Chemical Ingredients

CAS#	%	Chemical Name
74-98-6	100%	Propane

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4 FIRST AID MEASURES

- Inhalation:** If symptoms develop, move to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
- Skin Contact:** If frostbite or freezing occurs, immediately flush with plenty of lukewarm water to GENTLY warm the affected area. Do not use hot water. Do not rub affected area. Get immediate medical attention.
- Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
- Ingestion:** Do not induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.1. Description of First Aid Measures

First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms/Injuries: Gas can be toxic as a simple asphyxiant by displacing oxygen from the air. Refrigerated liquefied gas. Contact with product may cause cold burns or frostbite.

Symptoms/Injuries After Ingestion: Ingestion is an unlikely route of exposure for gas.

Symptoms/Injuries After Inhalation: Asphyxiant gas.

Symptoms/Injuries After Skin Contact: May cause frostbite.

Symptoms/Injuries After Eye Contact: Contact with the liquefied gas causes frostbite.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

5 FIRE FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Dry powder, foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising from the Substance or Mixture

Fire Hazard: Highly flammable liquid and vapor. Vapors may travel to source of ignition and flash back.

Explosion Hazard: May form flammable/explosive vapor-air mixture.

Reactivity: Contains gas under pressure; may explode if heated. Reacts with oxidants causing fire/explosion hazard.

5.3. Advice for Firefighters

Precautionary Measure Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without proper equipment, including respiratory protection.

6 ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, spray). Use special care to avoid static electric charges. Keep away from heat, sparks, open flames, hot surfaces. No smoking.

6.1.1. For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Responders

Protective Equipment: Equip clean up crew with proper protection.

Emergency Procedures: Stop leak if safe to do so. Eliminate ignition sources. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

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7	HANDLING AND STORAGE
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Handling Precautions:	<p>7.1. Precautions for Safe Handling Precautions for Safe Handling: Personnel should be trained to regularly inspect equipment such as pumps, hoses, and valves. Do not breathe gas. Ensure there is adequate ventilation. Close valve after each use and when empty. Open valve slowly to avoid pressure shock. Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.</p>
Storage Requirements:	<p>7.2. Conditions for Safe Storage, Including Any Incompatibilities Technical Measures: Comply with applicable regulations. Keep at temperatures below 52C/125F. Storage Conditions: Store in a dry, cool and well-ventilated place. Keep in fireproof place. Store locked up. Incompatible Products: Heat sources. Oxidizers.</p> <p>7.3. Specific End Use(s): Refrigerant</p>

8	EXPOSURE CONTROLS/PERSONAL PROTECTION
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Engineering Controls:	<p>Appropriate Engineering Controls: Alarm detectors should be used when toxic gases may be released. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.</p>
Personal Protective Equipment:	<p>HMIS PP, H Splash Goggles, Gloves, Apron, Vapor Respirator HMIS PP, O Face Shield & Eye Protection HMIS PP, K Full Face Respirator, Gloves, Full Suit, Boots Propane cas#:(74-98-6) [100%]</p> <p>Personal Protective Equipment</p> <p>Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full contact: Material: Fluorinated rubber Minimum layer thickness: 0.7 mm Break through time: 480 min Material tested: Vitoject (KCL 890 / Aldrich Z677698, Size M) Splash contact: Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 60 min Material tested: Camatril (KCL 730 / Aldrich Z677442, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario. Body Protection: impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.</p> <p>Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi- purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).</p> <p>Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.</p>

Propane cas#:(74-98-6) [100%]

Components with workplace control parameters

TWA	1,000 ppm	USA. ACGIH Threshold Limit Values (TLV)
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Central Nervous System impairment

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Cardiac sensitization

TWA 1,000 ppm USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
 1,800 mg/m3

The value in mg/m3 is approximate.

TWA 1,000 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
 1,800 mg/m3

TWA 1,000 ppm USA. NIOSH Recommended Exposure Limits
 1,800 mg/m3

9	PHYSICAL AND CHEMICAL PROPERTIES
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<p>Appearance: Clear, colorless gas</p> <p>Physical State: Gas</p> <p>Odor Threshold: No data available</p> <p>Specific Gravity or Density: 0.5066 (water=1)</p> <p>Viscosity: No data available</p> <p>Boiling Point: - 46.67 °C (52 °F)</p> <p>Partition Coefficient: No data available</p> <p>Vapor Pressure: 861.8 kPa (125 psi) @22.1 °C (70 °F)</p> <p>Potentia Hydrogenii: No data available</p> <p>Other Information</p> <p>Gas Group: Liquefied gas</p> <p>Evaporation Rate: No data available</p> <p>Decompression Temperature: No data available</p>	<p>Odor: Odorless</p> <p>Solubility: No data available</p> <p>Freezing or Melting Point: - 151.67 °C (305 °F)</p> <p>Flash Point: No data available</p> <p>Vapor Density: 1.52</p> <p>Autoignition Temperature: 467.22 °C (873 °F)</p> <p>UFL / LFL: 9.6 % / 2.15 %</p>
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10	STABILITY AND REACTIVITY
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Reactivity:	Contains gas under pressure; may explode if heated. Reacts with oxidants causing fire/explosion hazard.
Chemical Stability:	Stable under recommended handling and storage conditions (see section 7).
Conditions to Avoid Identification:	Direct sunlight. Extremely high or low temperatures. Open flame. Heat. Sparks.
Materials to Avoid Identification:	Heat. Strong oxidizers
Hazardous Decomposition:	Carbon oxides (CO, CO2)
Hazardous Polymerization:	Hazardous polymerization will not occur.

11	TOXICOLOGICAL INFORMATION
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Propane cas#:(74-98-6) [100%]

Information on Toxicological Effects

Acute Toxicity: No data available
Inhalation: No data available
Dermal: No data available
Skin Corrosion/Irritation: No data available
Serious Eye Damage/Eye Irritation: No data available
Respiratory or Skin Sensitisation: No data available
Germ Cell Mutagenicity: No data available

Carcinogenicity: Not classified

IARC: 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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

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OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: No data available
Specific target organ toxicity - single exposure: No data available
Specific target organ toxicity - repeated exposure: No data available
Aspiration Hazard: Not classified

Additional Information:

RTECS: TX2275000
 Dizziness, Drowsiness, Unconsciousness

12	ECOLOGICAL INFORMATION
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Propane cas#:(74-98-6) [100%]

Information on Ecological Effects

Toxicity: No data available
Persistence and Degradability: No data available
Bioaccumulative Potential: No data available
Mobility in Soil: No data available
 Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other Adverse Effects: No data available

13	DISPOSAL CONSIDERATIONS
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Propane cas#:(74-98-6) [100%]

13.1. Waste Treatment Methods

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.
 Additional Information: Empty product containers may contain hazardous residue. Do not reuse empty containers without commercial cleaning or reconditioning.

Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated Packaging: Dispose of as unused product.

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TRANSPORT INFORMATION

14.1. In Accordance with DOT

Proper Shipping name: 1D8000, Consumer commodity, 9

DOT Special Provision: DOT-SP-15593

14.2. In Accordance with IMDG

Proper Shipping Name: PETROLEUM GASES, LIQUEFIED

Hazard Class: 2

Identification Number: UN1075

Label Codes: 2.1

EmS-No. (Fire): F-D

EmS-No. (Spillage): S-U

14.3. In Accordance with IATA

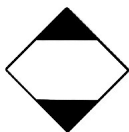
Proper Shipping Name: PETROLEUM GASES, LIQUEFIED

Identification Number: UN1075

Hazard Class: 2

Label Codes: 2.1

ERG Code (IATA): 10L



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REGULATORY INFORMATION

[%] RQ (CAS#) Substance - Reg Codes

[100%] Propane (74-98-6) MASS, NJHS, OSHAWAC, PA, TSCA, TSCAACTV, TXAIR

This product does not contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Regulatory Code Legend

MASS = MA Massachusetts Hazardous Substances List

NJHS = NJ Right-to-Know Hazardous Substances

OSHAWAC = OSHA Workplace Air Contaminants

PA = PA Right-To-Know List of Hazardous Substances

TSCA = Toxic Substances Control Act

TSCAACTV = TSCA Active Chemicals

TXAIR = TX Air Contaminants with Health Effects Screening Level

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OTHER INFORMATION

Disclaimer: Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

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