Enviro-Safe Industrial 134a Replacement Refrigerant Cylinders

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Enviro-Safe Industrial 134a Replacement Refrigerant Cylinders
SDS Number: 1070-1075
Revision Date: 10/9/2024
Version: 3.5
Product Description: Refrigerant

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

Phone: 309-346-1110
Fax: 309-346-1237
Email: info@es-refrigerants.com
Internet: www.es-refrigerants.com
Emergency: CHEMTREC 1-800-424-9300

2 HAZARDS IDENTIFICATION

Classification of Substance

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

Physical, Flammable Gases, 1
Physical, Gases Under Pressure, Compressed 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
OSHA-H01 - May displace oxygen and cause rapid suffocation

GHS Precautionary Statements:

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381 - In case of leakage, eliminate all ignition sources.
P403 - Store in a well-ventilated place.
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

Chemical Ingredients

CAS#	%	Chemical Name
68476-85-7	100%	Petroleum gases, liquefied

Enviro-Safe Industrial 134a Replacement Refrigerant Cylinders

4 FIRST AID MEASURES

Inhalation: If symptoms develop, move to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, seek medical attention. Immediatley 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

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

4.2. Effects and Symptoms, Both Acute and Delayed

Symptoms/Injuries: Gas can be toxic as a simple asphyxiant by displacing oxygen from the air.

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

Symptoms/Injuries Inhalation: Asphyxiant gas.

Symptoms/Injuries Skin Contact: May cause frostbite. Exposure may produce an allergic reaction.

Symptoms/Injuries 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: Water spray, dry powder, or carbon dioxide can be directed at flame area to reduce fire intensity.

Unsuitable Extinguishing Media: Do not extinguish flames unless leak can be stopped.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Extremely flammable gas.

Explosion Hazard: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

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

5.3. Advice for Firefighters

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

Firefighting Instructions: If possible, stop flow of gas. Use water to cool fire-exposed tanks, surroundings and to protect personnel working on shut off. If leak cannot be stopped, evacuate area. Fight fire remotely due to the risk of explosion.

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

6 ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Use special care to avoid static electric charges. Keep away from open flames, hot surfaces and sources of ignition. No smoking. Do not get in eyes, on skin, or on clothing. Do not breathe gas.

6.1.1. For Non-emergency Personnel

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

Emergency Procedures: Evacuate unnecessary personnel. Eliminate ignition sources.

6.1.2. For Emergency Responders

Protective Equipment: Equip clean up crew with proper protection.

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

6.2. Environmental Precautions

Avoid release to the environment.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Stop leak without risks if possible.

Methods for CLeaning Up: Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8. Exposure conrtols and personal protection. For further information refer to section 13.

Enviro-Safe Industrial 134a Replacement Refrigerant Cylinders

7 HANDLING AND STORAGE

Handling Precautions:

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.

Storage Requirements:

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling. Keep at temperatures below 52 °C / 125 °F.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep in fireproof place. Store locked up. Store away from strong oxidizing agents, chlorine dioxide, excessive heat and/or static dischcarge.

Incompatible Products: Heat sources. Oxidizers.

7.3. Specific End Use(s): Refrigerant.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

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.

Personal Protective Equipment: Petroleum gases, liquefied cas#:(68476-85-7) [100%]

Gas mask. Protective goggles. Gloves. Protective clothing.

Materials for Protective Clothing: Chemically resistant materials and fabrics.
Hand Protection: Wear working gloves when handling gas containers.
Eye Protection: Safety glasses.
Skin and Body Protection: Wear suitable protective clothing.
Respiratory Protection: use a NIOSH-approved self-contained breathing apparatus in oxygen deficient atmospheres.
Thermal hazard Protection: Wear cold insulating gloves.

Petroleum gases, liquefied (68476-85-7)

USA ACGIH - ACGIH TWA (ppm): 1000ppm
USA NIOSH - NIOSH REL (TWA) (mg/m3): 1800mg/m3
USA NIOSH - NIOSH REL (TWA) (ppm): 1000ppm
USA IDLH - US IDLH (ppm): 2100ppm (10% LEL)
USA OSHA - OSHA PEL (TWA) (mg/m3): 1800mg/m3
USA OSHA - OSHA PEL (TWA) (ppm): 1000ppm

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless gas.		
Physical State:	Gas	**Odor:**	Odorless
Odor Threshold:	No data available	**Solubility:**	No data available
Specific Gravity or Density:	0.53 / 0.53 (water = 1)	**Freezing or Melting Point:**	- 176.67 °C (- 286 °F)
Viscosity:	No data available	**Flash Point:**	No data available
Boiling Point:	- 37.8 °C (- 36.1 °F)	**Vapor Density:**	(at 20 °C added to vapor density) 1.64
Partition Coefficient:	No data available	**Autoignition Temperature:**	674.44 °C (1246 °F)
Vapor Pressure:	586.05 kPa (85 psi) at 21.1 °C (70 °F)	**UFL / LFL:**	9% / 2.6%
Potentia Hydrogenii:	No data available		

Evaporation Rate:	No data available
Decompression Temperature:	No data available

Enviro-Safe Industrial 134a Replacement Refrigerant Cylinders

10 STABILITY AND REACTIVITY

Reactivity:	Contains gas under pressure; may explode if heated. Vapor may ignite if exposed to static discharge.
Chemical Stability:	Stable under recommended handling and storage conditions (see section 7).
Conditions to AvoIdentification:	Direct sunlight. Extremely high or low temperatures. Open flame. Heat. Sparks. Static Discharge.
Materials to AvoIdentification:	Oxidizing agents such as chlorine, permanganates and dichromates.
Hazardous Decomposition:	Carbon oxides (CO, CO2).
Hazardous Polymerization:	Hazardous polymerization will not occur.

11 TOXICOLOGICAL INFORMATION

Petroleum gases, liquefied cas#(68476-85-7)

Information on Toxicology
Acute Toxicity: Not classified
LC50 Inhalation Rat: 658mg/l/4h
Petroleum Oil: > 2000 mg/kg
LD 50 Oral Rat: > 2000 mg/kg
LD50 Dermal Rat: > 2000 mg/kg
LC50 Inhalation Rat: > 2000 mg/kg

Skin Corrosion/Irritation: Not classified
Serious Eye Damage/Irritation: Not classified
Respiratory or Skin Sensitiation: Not classified
Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Aspiration Hazard: Not classified

12 ECOLOGICAL INFORMATION

Petroleum gases, liquefied cas#:(68476-85-7) [100%]

Information on Ecology
Toxicity: No additional information
Persistence and Degradability: No additional information available
Bioaccumulative Potential ---
Enviro-Safe Oil Charge 3
Log Pow: < 1
Petroleum gases, liquefied (68476-85-7)
Log Pow: 2.3
Mobility in Soil: No additional information available
Other Adverse Effects: No additional information available

13 DISPOSAL CONSIDERATIONS

Petroleum gases, liquefied cas#:(68476-85-7) [100%]

Information on Disposal

Waste Treatment Methods

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

Enviro-Safe Industrial 134a Replacement Refrigerant Cylinders

14 TRANSPORT INFORMATION

UN1075, Petroleum gases, liquefied or Liquefied petroleum gas, 2.1

15 REGULATORY INFORMATION

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

[100%] Petroleum gases, liquefied (68476-85-7) MASS, 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
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

16 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).

Revision Date: 10/9/2024
Print Date: 10/09/2024