

PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Enviro-Safe Prodry

SDS Number: 2075 10/9/2024 **Revision Date:** Version: 2.5

Product Description: Removes moisture from A/C units.

Supplier Details: Enviro-Safe Refrigerants

> 400 Hanna Dr. Pekin, IL 61554

309-346-1110 Phone: Fax: 309-346-1237

info@es-refrigerants.com Email: http://www.es-refrigerants.com/ Internet: CHEMTREC 1-800-424-9300 **Emergency:**

HAZARDS IDENTIFICATION

Classification of Substance

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

Physical, Flammable Gases, 1 Physical, Flammable Liquids, 2

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

H225 - Highly flammable liquid and vapour

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.

P210 - Keep away from heat/sparks/open flames/hot surfaces.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical/ventilating/lighting/equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P280 - Wear protective gloves/protective clothing/ eye protection/ face protection.

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

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.

P403 + P235 - Store in a well-ventilated place. Keep cool.

P410 + P403 - Protect from sunlight. Store in a well-ventilated place.

P501 - Dispose of contents/ container to an approved waste disposal plant.

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



Other Hazards

Contact with the product may cause cold burns or frostbite

Unknown Acute Toxicity (GHS-US)

No data available

3	COMPOSITION/INFORMATION ON INGREDIENTS
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Chemical Ingredients

CAS#	% Chemical Name	
68476-85-7 64-17-5	Petroleum gases, liquefied Ethyl alcohol	

4 FIRST AID MEASURES

Inhalation: When symptoms occur: go into open air and ventilate suspected area. 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 simple asphyxiant by displacing oxygen from the air. Refrigerated liquefied gas. Contact with product may cause cold burns or frostbite.

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

Symptoms/Injuries After Skin Contact: May cause frostbite. May cause skin irritation. **Symptoms/Injuries After Eye Contact:** Contact with the liquefied gas causes frostbite.

Symptoms/Injuries After Ingestion: Ingestion is an unlikely route of exposure for a gas. **Chronic Symptoms:** None expected under normal conditions of use..

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

4.3. Indication of Any Immediate Medical Attenti If exposed or concerned, get medical advice and attention.

5 FIRE FIGHTING MEASURES

Lower Explosive Limit: 2.6% **Upper Explosive Limit:** 9%

5.1. Extinguishing Media

Suitable Extinguishing Media: Dry chemical, alcohol resistant foam. carbon dioxide (CO₂).

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: 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. Reacts with strong oxidants causing fire and explosion hazard.

5.3. Advice for Firefighters

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

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

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

Other Information: Refer to Section 9 for flammability properties.

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. Do not take up in combustible material such as: saw dust or cellulosic material.

Methods for Cleaning Up: 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.

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.

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.

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.

Incompatible Products: Heat sources. Oxidizers.

7.3. Specific End Use(s) Removes moisture from A/C units.

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EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Gas detectors should be used when toxic gases may be released. Emergency eye wash foutains and safety showers

should be available int he immediate vicinity of any potential exposure. Ensure all nation/local regulations are

observed.

Personal Protective Equipment:

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

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.

Ethyl alcohol cas#:(64-17-5)

Personal protective equipment

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: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 480 min Material tested:Butoject (KCL 897 / Aldrich Z677647, Size M)



Splash contact: Material: Nitrile rubber Minimum layer thickness: 0.2 mm Break through time: 38 min Material tested:Dermatril P (KCL 743 / Aldrich Z677388, 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.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi- purpose combination (US) or type ABEK (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).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Petroleum gases, liquefied cas#:(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

Ethyl alcohol cas#:(64-17-5)

Components with workplace control parameters

TWA 1,000 ppm USA. ACGIH Threshold Limit Values (TLV) Upper Respiratory Tract irritation

Confirmed animal carcinogen with unknown relevance to humans

TWA 1,000 ppm USA. Occupational Exposure Limits

1,900 mg/m3 (OSHA) - Table Z-1 Limits for Air Contaminants

The value in mg/m3 is approximate.

TWA 1,000 ppm USA. NIOSH Recommended

1,900 mg/m3 Exposure Limits

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear

Physical State:GasOdor:No data availableOdor Threshold:No data availableSolubility:No data availableSpecific Gravity or Density: 0.53Freezing or Melting Point:-176.67°C (-286°F)

Viscosity: No data available Flash Point: <-18°C (<-0°F)

Boiling Point: -37.8°C (-36.1°F) **Vapor Density:** 1.64 (at 20°C added to vapor density)

Partition Coefficient: No data available Autoignition Temperature: 644.44° (1246°F)

Vapor Pressure: 586.05 kPa (85 psi) at 21.1°(70°) **UFL / LFL:** 9%/2.6%

Potentia Hydrogenii:No data availableEvaporation Rate:No data availableDecompressionNo data available

Temperature:

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STABILITY AND REACTIVITY

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



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.

Materials to AvoIdentification:Heat. Strong oxidizers.Hazardous Decomposition:Carbon oxides (CO, CO2).

Hazardous Polymerization: Hazardous polymerization will not occur.

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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

Ethyl alcohol cas#:(64-17-5)

Information on toxicological effects

Acute toxicity:

LD50 Oral - rat - 7,060 mg/kg Remarks: Lungs, Thorax, or Respiration:Other changes.

LC50 Inhalation - rat - 10 h - 20000 ppm

Dermal: no data available

Skin corrosion/irritation: Skin - rabbit Result: No skin irritation - 24 h (OECD Test Guideline 404)

Serious eye damage/eye irritation: Eyes - rabbit Result: Mild eye irritation - 24 h (OECD Test Guideline 405)

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

Carcinogenicity - mouse - Oral:

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors. Blood: Lymphomas including Hodgkins disease.

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.

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.

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

Reproductive toxicity - Human - female - Oral:

Effects on Newborn: Apgar score (human only). Effects on Newborn: Other neonatal measures or effects. Effects on Newborn: Drug dependence.

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information: RTECS: KQ6300000

Central nervous system depression, narcosis, Damage to the heart., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

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ECOLOGICAL INFORMATION

Propane cas#:(74-98-6) [55.9844%]



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

Butane cas#:(106-97-8) [41.0156%]

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

PBT and vPvB Assessment: No data available Other Adverse Effects: No data available

Ethyl alcohol cas#:(64-17-5) [3%]

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

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DISPOSAL CONSIDERATIONS

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

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.

Ethyl alcohol cas#:(64-17-5)

Waste treatment methods

Product: Contact a licensed professional waste disposal service to dispose of this material. 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.

Contaminated packaging: Dispose of as unused product.

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TRANSPORT INFORMATION

14.1. In Accordance with DOTConsumer Commodity, ORM-D14.2. In Accordance with IMDG

Proper Shipping Name: PETROLEUM GASES, LIQUEFIED (Propane and Butane)

Hazard Class: 2.1

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 (Propane Butane)

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

[--%] Petroleum gases, liquefied (68476-85-7) MASS, OSHAWAC, PA, TSCA, TSCAACTV, TXAIR

[--%] Ethyl alcohol (64-17-5) 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

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OTHER INFORMATION

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