Enviro-Safe Arctic Air Plus

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Enviro-Safe Arctic Air Plus
Product Use: Removes moisture in the A/C system and has an added stop leak for the o rings and gaskets.
Supplier Details: Enviro-Safe Refrigerants, Inc.
400 Margaret Street
Pekin, IL 61554
Emergency: Chemtrec 1-800-424-9300
Phone: 309-346-1110
Fax: 309-346-1110
Email: envirosafe2000@hotmail.com
Web: www.es-refrigerants.com

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

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

Physical, Flammable Gases, 1
Health, Skin sensitization, 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
H317 - May cause an allergic skin reaction
H280 - Contains gas under pressure; may explode if heated

GHS Precautionary Statements:

P220 - Keep/Store away from clothing/combustible materials.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+352 - IF ON SKIN: Wash with soap and water.
P321 - Specific treatment (see Section 4 on this SDS).

P333+313 - If skin irritation or a rash occurs: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P377 - Leaking gas fire: Do not extinguish unless leak can be stopped safely.
P381 - Eliminate all ignition sources if safe to do so.
P410+403 - Protect from sunlight. Store in a well ventilated place.
P501 - Dispose of contents/container to local, regional, national and international regulations.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
68476-85-7	90-95%	Petroleum gases, liquefied
138-86-3	1-5%	Dipentene
64742-54-7	1-5%	Distillates, petroleum, hydrotreated heavy paraffinic

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.

Effects and symptoms, both acute and delayed:

Ingestion: Ingestion is an unlikely route of exposure for a gas.
Inhalation: Asphyxiate gas.
Skin contact: May cause frostbite. May cause an allergic skin reaction.
Eye contact: Contact with the liquefied gas causes frostbite.
Chronic Symptoms: Exposure may produce an allergic reaction. Indication of any immediate medical attention and special treatment needed. If exposed or concerned, get medical advice and attention.

5 FIRE FIGHTING MEASURES

LEL: 1.9%
UEL: 8.5%

Extinguishing Media
Suitable: Dry chemical powder, alcohol-resistant foam, carbon dioxide.
Unsuitable fire extinguisher: Do not use a heavy water stream. Use of heavy water stream may spread fire.

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 explosure hazard.

Advice for Fire Fighters
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 protective equipment, including respiratory protection.

6 ACCIDENTAL RELEASE MEASURES

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.

For Non-emergency Personnel
Protective Equipment: Use appropriate personal protection equipment (PPE).
Emergency Procedures: Evacuate unnecessary personnel. Eliminate ignition sources.

For Emergency Responders
Protective Equipment: Equip cleanup crew with proper protection.
Emergency Procedures: Stop leak if safe to do so. Ventilate area.

Environmental Precautions
Avoid release to the environment.

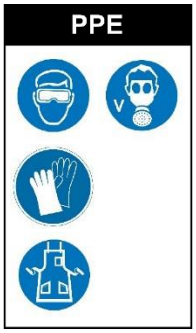
Methods and Material for Containment and Cleaning Up
For Containment: Stop leak without risks if possible. Do not take up in combustible material such as: saw dust or cellulosic material.
Methods for Clean Up: Contact competent authorities after a spill.

7 HANDLING AND STORAGE

Handling Precautions:
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.
Consider normal working hygiene.
Wash thoroughly after handling.

Storage Requirements:
Comply with applicable regulations.
Cylinders should be stored upright.
Keep at temperatures below 52°C/125°F.
Store in cool/dry and well ventilated area.
Keep away from heat, sparks, and flames.

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 (68476-85-7) 90-95%

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: 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.

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).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Dipentene (138-86-3) [1-5%]

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: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 480 min Material tested: Camatril (KCL 730 / Aldrich Z677442, Size M)

Splash contact: Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 30 min Material tested: Dermatril (KCL 740 / Aldrich Z677272, 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: Complete suit protecting against chemicals, 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. Discharge into the environment must be avoided.

Petroleum gases, liquefied (68476-85-7) 90-95%

Components with workplace control parameters

TWA	1,000 ppm	USA. ACGIH Threshold Limit Values (TLV)
Central Nervous System impairment Cardiac sensitization		
TWA	1,000 ppm	USA. OSHA – Table Z-1 Limits for Air Contaminants
The value in mg/m3 is approximate.		

TWA	1,000 ppm 1,800 mg/m3	USA. OSHA – Table Z-1 Limits for Air Contaminants 1910.100
TWA	1,000 ppm 1,800 mg/m3	USA. NIOSH Recommended Exposure Limits

Dipentene (138-86-3) [1-5%]

TWA	30 ppm	USA. Workplace Environmental Exposure Levels (WEEL)

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless gas	**Evap. Rate:**	Rapid
Physical State:	Gas	**Odor:**	Pine scent
Spec Grav./Density:	.540	**Freezing/Melting Pt:**	-166°C (-267.1°F)
Boiling Point:	-34.7°C (-30.4°F)	**Flash Point:**	-104°C (-155°F)
Partition Coefficient:	<1	**Vapor Density:**	1.76
Vapor Pressure:	70 @ 21.1°C (70°F)	**Auto-Ignition Temp:**	862-8°C (1585°F)

10 STABILITY AND REACTIVITY

Reactivity:	Contains gas under pressure; may explode if heated. Reacts with oxidants causing fire and explosion hazard.
Chemical Stability:	Stable under recommended handling and storage conditions
Conditions to Avoid:	Direct sunlight Extremely high or low temperatures

	Open Flame
	Heat
Materials to Avoid:	Heat
	Strong Oxidizing Agents
Hazardous Decomposition:	Carbon oxides
Hazardous Polymerization:	Will not occur

11 TOXICOLOGICAL INFORMATION

Petroleum gases, liquefied (68476-85-7) 90-95%

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 sensitization: no data available
Germ cell mutagenicity: no data available
Carcinogenicity:
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.
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: no data available
Additional Information: RTECS: TX2275000
Dizziness, Drowsiness, Unconsciousness

Dipentene (138-86-3) [1-5%] Information on toxicological effects Acute toxicity:
LD50 Oral - rat - 5,300 mg/kg

Inhalation: no data available
Dermal: no data available
Skin corrosion/irritation: Skin - rabbit Result: Skin irritation - 24 h
Serious eye damage/eye irritation: no data available
Respiratory or skin sensitization:
Germ cell mutagenicity: no data available

Carcinogenicity:
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.

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: no data available
Additional Information: RTECS: OS8100000
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12 ECOLOGICAL INFORMATION

Petroleum gases, liquefied (68476-85-7)

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

Dipentene (138-86-3) [1-5%]

Information on ecological effects:

Toxicity:
Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 80 mg/l - 96.0h.
Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 17 mg/l - 48 h. other aquatic invertebrates

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: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.

13 DISPOSAL CONSIDERATIONS

Petroleum gases, liquefied (68476-85-7) 90-95%

Waste treatment methods

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.

Dipentene (138-86-3) [1-5%]

Waste treatment methods

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.

14 TRANSPORT INFORMATION

DOT:
Consumer commodity, 9,
(Consumer Commodity, ORM-D)

IMDG:
Petroleum gases, liquefied, 2.1, UN1075
Label code: 2.1
EmS-No (Fire): F-D
EmS-No. (Spillage): S-U
Marine Pollutant: No

IATA:
Petroleum gases, liquefied, 2.1, UN1075
Label Code: 2.1
ERG Code (IATA): 10L
Marine Pollutant: No

15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

Petroleum gases, liquefied (68476-85-7) [n/a%] MASS, NJHS, OSHAWAC, PA, TSCA, TXAIR
Dipentene (138-86-3) [n/a%] TSCA
Distillates, petroleum, hydrotreated heavy paraffinic (64742-54-7) [n/a%] NJHS, TSCA

Regulatory CODE Descriptions

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
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). This information is given in good faith and based on our current knowledge of the product.

Author: Jeanette Akright
Publication Date: February 26, 2016