

SAFETY DATA SHEET

Section 1: Identification

Product Name: Eco Kold

Product No: HCR 4141 (Formerly known as HCR 410)

Product Use: Ecological Refrigerant
Zeotropic Mix of Natural Gases
Domestic & Industrial Purpose

Manufacturer: BHCR Hq, Corp S.A.
1 Logistic Park, Pana West, Chorrera Panama
Phone: + 507 6378-6999
info@BHCRHq.com

Emergency Telephone Number: + 507 6378-6999 or +1 (786) 881-3380



Section 2: Hazard(s) Identification

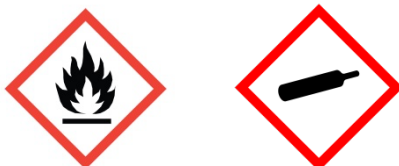
Hazard Statement: Gas may ignite in presents of open flame or other heat source

Hazard Category: Classification according to 29 CFR §1910.1200).

Flammable Gas 1 H220 (EC) No 1272/2008)

Gases under pressure H280 Contains gas under pressure; may explode if heated.

Pictograms:



Precautionary Statements:

Precautionary Statements - Prevention: P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.

Precautionary Statements - Response: P377 Leaking gas fire - do not extinguish unless leak can be stopped safely. P381 Eliminate all ignition sources if safe to do so.

Precautionary Statements - Storage: P403+235 Store in a well-ventilated place. Keep cool. P410+403 Protect from sunlight. Store in a well-ventilated place

Section 3: Composition/Information on Ingredients

Ingredients	CAS	Percent (%)
ZEOTROPIC MIX OF LP GASES	Propane CAS#: 74-98-6 Butane CAS#: 106-97-8 I-Butane CAS#: 75-28-5	The percentages of the Eco Kold composition have been withheld as a trade secret.

Section 4: First-Aid Measures

Skin contact: If skin has contact with gas, wash with water. Seek medical attention for any other skin damage symptom.

Eye contact: If there is contact to the eyes with the gas, eye irritation may occur. Rinse with plenty of water.

Inhalation: Seek immediate medical attention.

Ingestion: Rinse mouth with water and drink afterwards plenty of water.

Section 5: Fire-Fighting Measures

Suitable extinguishing agents: Water spray, CO₂, foam

Special protective equipment for firefighters: Protective clothing & respiratory protection requires

Hazardous Decomposition Products: Carbon Dioxide, Carbon Monoxide

Section 6: Accidental Release Measures

Personal Precautions: Do not touch or walk-through spilled material. Spillage material may create slippery surface. Do not touch damaged containers or spilled material. Keep unnecessary personnel away.

Environmental Precaution: Take actions to prevent further spillage. Provide barrier to prevent contamination with water or ground. As the product has low pH, add sufficient amount of water before discharging in environment.

Method of Cleaning Up: Follow the safety precautions before starting the clean up process. Use suitable protective clothing. Absorb spilled material with appropriate absorbent.

Section 7: Handling and Storage

Handling: Ensure proper ventilation of the area before using. Avoid contact with skin, eye and clothing. Do not use in confined spaces. Keep away from children.

Storage: This product is slightly flammable. Store in dry, cool and well-ventilated place. Don't expose in high temperature. Keep away from children.

Precautionary Statements: Disposal - P501 Dispose of contents / container in accordance with local / national regulations.

Section 8: Exposure Controls/Personal Protection

General protective and hygienic measures: Avoid contact with eye and skin.

Breathing equipment: Not Required

Protection of hands: Rubber hand gloves may be used.

Eye protection: Safety glasses should be worn.

Other: Evaluate need based on application. Ventilation may need to improve if required.

Section 9: Physical and Chemical Properties

Form:	Gas
Molecular Weight:	45.6
Vapor Pressure:	70 PSIG at 110 F
Vapor Density (Air=1):	18.52 Kg/m ³
Flash point:	-95 °C
Boiling Point:	-46.2 °C
Thermal Conductivity of Vapor:	17.403 W/m-K
Thermal Conductivity of Liquid:	91.502 W/m-K
Auto ignition Temperature:	620 °C
Range of Flammability:	2.1%-9.2%
Critical Pressure:	4300.5 kpa
Critical Temperature:	103.8 °C
Freezing Point:	-187 °C
Liquid Density:	507.43 Kg/m ³
ODP:	0
GWP:	1
Sp. Gravity:	1.55

Section 10: Stability and Reactivity

Stability:	Stable
Reactivity:	Not Applicable
Chemical stability:	This product is chemically stable
Hazardous decomposition products:	No hazardous decomposition
Hazardous polymerization:	N/A
Compatibility:	Mineral Oil (MO), Synthetic Alkylates (SA) & Polyol Ester (POE)

Section 11: Toxicological Information

Toxicity:	Toxic while long term contact with metals
<u>Potential routes of exposure/potential health effects</u>	
Skin:	Skin irritation may occur with direct contact
Eye:	Eye irritation occur in direct contact
Inhalation:	No effects on inhalation
Carcinogenic effects:	No carcinogenic effects
Mutagenic effects:	No mutagenic effects

Section 12: Ecological Information (non-mandatory)

Eco-toxicity:	No eco-toxicity
Biodegradation:	N/A
Bioaccumulation:	No bioaccumulation

Section 13: Disposal Considerations (non-mandatory)

Waste Disposal Methods:	Any method in accordance with local, state and federal laws. Do not directly discharge into environment. Mix with a large amount of water to increase the pH before discharging.
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Section 14: Transport Information (non-mandatory)

UN Number: 1075

Class: 2

FIRE AND EXPLOSION HAZARDS:

HCR-4141 (Formerly known as HCR 410) is not flammable at ambient temperatures and atmospheric pressure. However, this material will become combustible when mixed with air under pressure and exposed to strong ignition sources.

Section 15: Regulatory Information (non-mandatory)

EU Legislation

REGULATION (EU) 2015/830 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

US federal regulations

The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA): All components of this material are either listed or exempt from listing on the TSCA Inventory.

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA (311/312) REPORTABLE GHS HAZARD CLASSES: Flammable (gases, aerosols, liquids, or solids), Gas under

Pressure, Simple Asphyxiate.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

National Legislation

None noted.

Taiwan (R.O.C) Legislation

Occupational Safety and Health Act, Toxic Chemical Substance Control Act, Standards of Permissible Exposure Limits of Airborne Hazardous Substances in Workplace, Regulations for the Labeling and Hazard Communication of Hazardous Chemicals, Regulations Governing Designating and Handling of Priority Management Chemicals, Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste, Public Hazardous Substances & Flammable Pressurized Gases Establishment Standards & Safety Control Regulations.

Chemical Safety Assessment

No Chemical Safety Assessment has been carried out.

Section 16: Other Information

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.