

- BHCR Hq headquarters are located in **Delaware, USA** with production and wholesale distribution centers in **Panama**.
- In 2009, BHCR Hq was founded by a group of engineers from the USA and Panama. The goal was to create an accessible, affordable and eco-friendly cooling solution.
- After many experiments, in 2010, the first eco-friendly refrigerant, Version 1.0 was introduced. Since then, the products have been enhanced to produce even more energy savings. BHCR Hq has now formulated its most efficient version, 10.0.
- Today, BHCR Hq offers a wide range of 100% natural cooling refrigerants. The products provide energy savings of up to **65%** and work with almost all existing cooling systems, while no modifications are required.
- BHCR Hq is continuously working to improve efficiency, while protecting the environment. **Even small changes can make a big impact!**

Eco Kold offers 100% natural and ecological cooling refrigerants.

Contact us for more information about Eco Kold product lines!



TRUSTED PARTNERS + DEVELOPMENTS WORLDWIDE



**USA • CANADA • MEXICO • E.U. • SPAIN • UZBEKISTAN • UKRAINE
PANAMA • COLOMBIA • BRAZIL • GERMANY • MIDDLE EAST • U.A.E. • AUSTRALIA**

Today's World Problem

#1 Higher costs

Electricity costs have jumped by nearly 100% in 20 years. They're exploding as residential/commercial demand is rising.

#2 Hotter Cities

Today's Cities are more affluent and hotter. We're accustomed to air conditioning. But it's now pricier than ever to get and stay cool.

#3 New Regulations

A Global Warming Potential (GWP) >150 are banned from all new equipment. A high GWP may be subject to fines & other legal actions.



Unprecedented Solutions For All Your Cooling Needs

Natural Refrigerant (HC) • Energy Savings 30-50%



Energy Reduction

For homes, office, cars and commercial applications



Economic Savings

in real dollars for people and businesses



Environmental Protection

it uses safe and natural gases



Hard Costs Reduction

it works with your existing AC units



Reduce Flammability

Based on unique composition and charge amount

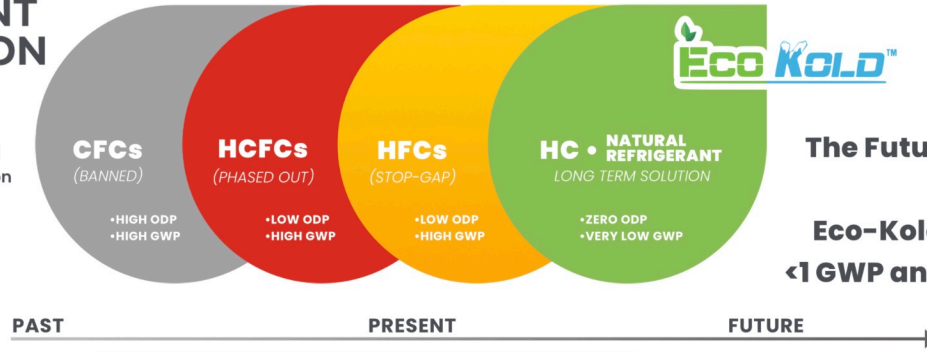


Potential Carbon Credits

Due to zero carbon emissions

REFRIGERANT PROGRESSION

ODP Ozone Depletion Potential
 GWP Global Warming Potention



The Future is Now.

**Eco-Kold™ offers
 <1 GWP and zero ODP.**

Eco Kold™ Products



**Eco Kold™ HCR
 404**

**Replaces Existing:
 R-404, R-513**

**Utilization/
 Application:**
 Mid Low & Low
 Temp Refrigeration
 Equipment



**Eco Kold™ HCR
 410**

**Replaces Existing:
 R-410, R-32**

**Utilization/
 Application:**
 Domestic &
 Commercial Air
 Conditioner Units



**Eco Kold™ HCR
 22**

**Replaces Existing:
 R-22, R-407, R-507**

**Utilization/
 Application:**
 • Domestic & Commercial
 Air Conditioner Units
 • Medium Low
 Refrigeration Systems



**Eco Kold™ HCR
 134**

**Replaces Existing:
 R-134**

**Utilization/
 Application:**
 • Domestic & Commercial
 Refrigeration Systems
 • Chillers & Transpiration
 Cold Shipping Containers
 • Electric Vehicles



**Eco Kold™ HCR
 134A**

**Replaces Existing:
 R-134A**

**Utilization/
 Application:**
 All Types of Vehicles

Past Projects with Break Even Analysis

*Eco Kold™ used previous versions of the refrigerant (Current Version is #9)
 *Prices of Electricity and Eco Kold refrigerant based on the year of the projects.

| | Flexo Print Facility | Immigration Offices | Retail Store |
|------------------------|-----------------------------|----------------------------|-------------------------|
| Date | May 2010 | June 2016 | August 2022 |
| Units | 12 | 27 | 12 |
| Total Tons | 18 Tr | 675 Tr | 187 Tr |
| BTU | 216000 | 8100000 | 2244000 |
| Refrigerant | R22 | R410 | R22 and R410 |
| Electric Bill Before | \$1,560 / mo | \$118,000 / mo | \$15,540 / mo |
| New Refrigerant | HCR 22 | HCR 410 | HCR 410 / HCR 22 |
| Electric Bill After | \$1061 / mo | \$62,540 / mo | \$9,169 / mo |
| Net Savings | \$499 / mo | \$55,460 / mo | \$6,371/ mo |
| Utilization Reduction | 32% | 47% | 41% |
| Replacement Cost | \$2,160 | \$87,750 | \$19,694 |
| Break Even | 4.3 mo | 1.6 mo | 4.6 mo |

Two big problems plague people and businesses today:

Increasing AC demands & Increasing AC costs.

Neither are slowing down. But there's another challenge:

The Environment

As of January 1, 2022, refrigerants with a GWP greater than 150 will be banned from all new equipment. Those companies using refrigerants with high GWP may be subject to fines and other legal actions.

Fortunately, Eco Kold™ GWP is less than 1.



Our story begins in 1992...

when Greenpeace created the first domestic refrigerator using pure butane. In 2008, our engineering team from the US, Israel, and Panama decided to investigate the family of liquid petroleum gases—including butane.

After many experiments...

we created the first generation of a new environmentally friendly and high efficiency refrigerant. Version 1.0 went to market in 2010 to great success, showing our distributor partners how much money they could save.



Now we are onto version 10...

We just keep improving on our formula, leading to more efficiency and more savings for you and your customers.

Our Trusted Partners



• Greater Savings • Reduced Emissions • Longer Shelf Life



[BHCR Hq](#)'s NATURAL hydrocarbon (HC) refrigerant product Eco Kold™ HCR 410 is a new, environmentally friendly, and high efficiency refrigerant used for domestic and commercial air conditioning applications.

Climate Action:

- Global Warming Potential (GWP) of 1 (one) with up to 50%+ more efficient than any conventional alternatives.

Reduce Flammability:

- Proven safer, less flammable formula.

Economic Savings:

- Reduces electrical costs by around 50%+

Hard Cost Reduction:

- Increases the lifespan of A/C units.

Easy Use:

- Compatible with 95% of existing A/C and refrigeration systems

Carbon Credits:

- Zero carbon formula may qualify for carbon credits

Overview:

Climate Action: Eco Kold™ HCR 410 is a zeotropic refrigerant mixture of safe, natural gases that has been proven in peer-reviewed studies to increase energy efficiency up to 50%+ when compared to conventional R 410 refrigerant, qualifying it as an essential tool to reduce greenhouse gasses and take positive climate-action. Additionally, the longer lifespan of A/C units facilitated by the product means less units will end up in landfills, less often and the high environmental cost of producing new A/C units will be considerably mitigated.

Reduce Flammability: It is also less flammable due to its unique composition and **charge amount**.

Economic Savings: This groundbreaking refrigerant alternative would dramatically reduce energy consumption in homes, cars, offices, and other commercial applications while translating into real economic savings for people and businesses. Crucially, Eco Kold™ HCR 410 has been documented to reduce electric costs in homes and businesses up to 50%+, representing enormous savings potential for consumers of domestic and commercial air conditioning units.

www.BHCRHq.com

For additional information, please contact: SALES@BHCRHq.com



Hard Cost Reduction: A/C units will last significantly longer when using Eco Kold™ HCR 410 because of reduced pressure from the proprietary mixture of natural gases, when compared to conventional refrigerant. This will significantly reduce the need to dispose of units in “A/C grave yards” and their associated chemical pollution costs.

Easy Use: The product consists of 100% mineral origin and is fully compatible with existing A/C units that use traditional R 410 refrigerant, including the vast majority of lubricants, from natural to synthetic products used in domestic and commercial A/C units, eliminating the need for costly modifications or new units.

Carbon Credits: Due to the product’s zero carbon emissions, it may qualify for federal and state carbon credits as well.

EPA - SNAP

BHCR, Hq’s hydrocarbon refrigerant product Eco Kold™ HCR 410 is seeking evaluation from the U.S. Environmental Protection Agency’s Office of Atmospheric Protection - Stratospheric Protection Division for identification as an alternative to Class I and II ozone-depleting substances under Section 612 of the Clean Air Act’s Significant New Alternatives Policy (SNAP) Program.

BHCR Hq submitted an application for SNAP approval to the U.S. EPA - Stratospheric Protection Division on October 10, 2022.

Examples of Use

Eco Kold™ HCR 410 has been proven to increase efficiency and drive down electrical costs, as demonstrated in the following commercial settings:

- Immigration Office - In June, 2016 Eco Kold™ HCR 410 was used to replace conventional R 410 refrigerant in an immigration office that used 27 A/C units. When the immigration office upgraded their A/C systems with Eco Kold™ HCR 410, their electric bill decreased by 47%, saving them \$55,460/month.

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- Retail Store - In August, 2022 Eco Kold™ HCR 410 was used to replace conventional R 410 refrigerant in a retail store that used 12 A/C units. When the retail store upgraded their A/C systems with Eco Kold™ HCR 410, their electric bill decreased by 41% – saving them \$6,371/month.

Appendix

Product certifications:

1. Eco design Directive 2009/125/EC2006

- Certificate No. (CE-4082)
- The Eco-design Directive 2009/125/EC, also known as the Energy-related Products (ErP) Directive, is a European Union directive that aims to improve the environmental performance of energy-related products throughout their life cycle.
- Date of Certification: 13 March 2023

2. Core Laboratories Panama, S.A.

- A NYSE-listed energy services laboratory that is a global leader in independent analyses, field inspections, monitoring and verification programs.
- The results of the tests shows that ECOKOLD gas (refrigerant) is hydrocarbons that form a zeotropic mixture, these in turn were obtained from the liquefaction of petroleum gases (LPG). Product of Mineral Origin 100% natural and it is a blend with Nitrogen to reduce Flammability.
- Date of Certification: 08 February 2023

Product studies:

1. Technological University of Panama

- Report No.: INF-CRT-008-2011
- Report prepared by: Ing. Cesar Jaramillo; Reviewed by: Edilberto Hall, Ph.D., Ing. Italo Petrocelli
- CONCLUSION: “The use of HCR 410 refrigerant gas made the air conditioning system described in this test more efficient in its power consumption, specifically in the compressor stage. The efficiency of the HCR 410 refrigerant in comparison to conventional R 410 refrigerant, installed in split-type air conditioning equipment is 36%.”

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For additional information, please contact: SALES@BHCRHq.com



2. Technologigo de Monterrey

- Report: Comparative Risk Study for Natural Refrigerants
- Department: Department of Chemical Engineering ITESM, MONTERREY
- Report prepared by: Dr. Enrique Ortiz Nadal, 10 June 2009.
- CONCLUSION: “This study based on hydrocarbons refrigerants does not represent in any danger for the various application areas, however the presence of natural refrigerants requires same handling as any other existing refrigerants.”

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Refrigerant Replacement Comparison Chart

| Eco KOLD [®] | Existing | Utilization / Application | | |
|-----------------------|---------------------------|---|--|-------------------|
| HCR 410 | R-410, R-32 | Domestic & Commercial Air Conditioner Units | | |
| HCR 22 | R-22, R-407, R-507, R-438 | Domestic & Commercial Air Conditioner Units | Medium Low Refrigeration Systems | |
| HCR 134 | R-134 | Domestic & Commercial Refrigeration Systems | Chillers & Transportation Cold Shipping Containers | Electric Vehicles |
| HCR 134A | R-134A | All types of Vehicles | | |
| HCR 404 | R-404, R-513 | Mid Low & Low Temperature Refrigeration Equipment | | |

Disclosure / Note:

- **Verification of the existing refrigerant gas in the system MUST be completed prior to installation / replacement.**
- **Review and follow installation guidance.**

Core Laboratories Panama, S.A.

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Email: saybolt.panama@corelab.com
Visit: <http://www.corelab.com>

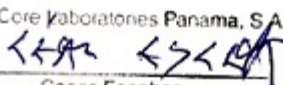



Panama February 8, 2023

To: BHCR Hq, Corp. S.A

Reference: Molecular Composition ECOKOLD REFRIGERANTS

After having analyzed the supplied sample of ECOKOLD HCR REFRIGERANTS. The results of the tests shows that ECOKOLD gas (refrigerant) is hydrocarbons that form a zeotropic mixture, these in turn were obtained from the liquefaction of petroleum gases (LPG). Product of Mineral Origin 100% natural and it is a blend with Nitrogen to reduce Flammability.



 Core Laboratories Panama, S.A.
Cesar Escobar
Lab. Manager Assistant - Licence #099

Core Laboratories Panama
Lic. Cesar Escobar
Project Manager Lab.



Certificate of Compliance



We hereby declare that the technical file of product complied with the requirement of
Eco design Directive 2009/125/EC2006

Certificate No: - CE-4082

Manufacturer : BHCR Hq, Corp S.A.

Applicant : BHCR Hq, Corp S.A.

**Address : 1 LOGISTIC PARK, PANA WEST, CHORRERA
PANAMA**

Trade Name : BHCR Hq, Corp S.A.

Products : AS MENTIONED IN THE ANNEXURE

Complies with the requirements applicable to it

The quality system file has been assessed, approved and is subject to continuous surveillance according to the Council Directive on Eco design Directive 2009/125/EC2006

This certificate is issued under the following conditions:

1. It applies only to the quality system maintained in the manufacture of above referenced models and it does not substitute the design or type-examination procedures, if requested.
2. The certificate remains valid until the manufacturing conditions or the quality systems are changed.
3. The certificate validity is conditioned by positive results or surveillance audits.

The CE mark as shown above can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of conformity and compliance with all relevant EC Directives. The statement is based on a single evaluation of test report of one sample of above mentioned product. It does not imply an assessment of the whole production.

Validity of this certificate can be verified at www.ukcertifications.org.uk/verify

| | |
|---|-----------------|
| Date of Certification | 13th March 2023 |
| 1st Surveillance Audit Due | 12th March 2024 |
| 2nd Surveillance Audit Due | 12th March 2025 |
| Certificate Expiry (subject to the company maintaining its system to the required standard) | 12th March 2026 |



Authorised Signatory



Certificate of Compliance

Appendix-I

Appendix to Certificate no.:- CE-4082

Manufacturer: BHCR Hq, Corp S.A.



| S.NO. | PRODUCTS NAME |
|-------|------------------------------------|
| 1. | ECOLOGICAL REFRIGERANTS HCR 410 |
| 2. | ECOLOGICAL REFRIGERANTS HCR 22 |
| 3. | ECOLOGICAL REFRIGERANTS HCR 32 |
| 4. | ECOLOGICAL REFRIGERANTS HCR 134 |
| 5. | ECOLOGICAL REFRIGERANTS HCR 134 |
| 6. | ECOLOGICAL REFRIGERANTS HCR 1234YF |
| 7. | ECOLOGICAL REFRIGERANTS HCR 404 |



Authorised Signatory

