

rime.

REFRIGERANTS

MEETS **AHRI** 700 PURITY STANDARD



OVERVIEW

About rime Group

Rime is a dynamic and innovative refrigeration company that manufactures state-of-the-art refrigeration products and provides turnkey solutions for commercial and industrial applications. We have over 20 years of expertise, and with a relentless commitment to excellence and a passion for innovation, we have emerged as a leading player in the Middle Eastern and African HVAC and refrigeration Industry.

Our Mission

We strive to deliver high-quality, cost-effective refrigeration solutions with a focus on advanced manufacturing and assembly. Our goal is to provide superior products and exceptional service, that ensures a seamless customer experience and ongoing support.

Our Vision

To lead the HVAC and Refrigeration industry from the GCC to the global stage, setting the benchmark for cost-effective and innovative solutions. Through advanced manufacturing and assembly practices, we strive to pioneer cutting-edge technologies that optimize energy efficiency, minimize environmental impact, and make a significant, positive difference worldwide.

Core Values

Responsiveness: We value responsiveness in our interactions with clients, partners, and team members. We prioritize open communication and timely actions to address their needs efficiently.

Integrity: It is at the core of our business. We uphold ethical practices, transparency, and honesty in all our endeavors, building trust and long-lasting relationships with our stakeholders.

Mindfulness: Extends to our workplace culture. We are committed to fostering a supportive and inclusive environment where employees' well-being and personal growth are prioritized, ensuring a positive and collaborative work atmosphere.

Empowerment: We believe in empowering our team members to foster creativity, growth, and professional development. We encourage collaboration and foster an environment where everyone's ideas and contributions are valued.

rime. Refrigerants

Welcome to Rime Refrigerants, where innovation and sustainability unite in the world of cooling solutions. We specialize in environmentally friendly and energy-efficient refrigerants, custom-designed for various applications. Dive into our catalog to explore the forefront of refrigeration and air conditioning.

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Why Rime Refrigerants?



Product Description

Rime Refrigerants offers R134a in various package sizes to accommodate different needs, including 3.4 kg, 13.6 kg and 1 kg containers.

R134a is renowned for its low CDP and working pressure, meeting industry standards for refrigerant performance.



Chemical Composition	R134a, manufactured and distributed by Rime Refrigerants, is a pure hydrofluorocarbon (HFC) refrigerant.
Molecular Formula	The molecular formula of R134a is CH ₂ FCF ₃ .
Chemical Properties	<p>R134a is a colorless, odorless gas with a boiling point of -26.3°C (-15.3 °F) at atmospheric pressure.</p> <p>It exhibits excellent chemical stability, making it suitable for a wide range of applications.</p> <p>R134a is non-toxic and non-flammable under normal operating conditions.</p>

Applications

Rime R134a finds extensive use in the HVAC (Heating, Ventilation, and Air Conditioning) industry.

It is commonly employed in automotive air conditioning systems for both passenger and commercial vehicles.

R134a is suitable for various commercial and residential refrigeration systems, including refrigerators, freezers, and heat pumps.

Benefits

Rime R134a is an environmentally friendly choice as it has zero ozone depletion potential (ODP).

It has a relatively low global warming potential (GWP) compared to some other refrigerants, making it a responsible choice for mitigating climate impact.

R134a offers excellent thermodynamic properties, ensuring efficient and reliable cooling performance in a wide range of applications.

The non-flammable nature of R134a enhances safety in HVAC and refrigeration systems.

Lubrication

R134a refrigerant is typically compatible with polyolester (POE) lubricants commonly used in HVAC and refrigeration systems.

Proper lubrication is essential for maintaining the longevity and efficiency of equipment, and Rime R134a is designed to work seamlessly with appropriate lubricants.

Rime Refrigerants takes pride in providing high-quality R134a refrigerant that meets industry standards and environmental considerations, offering reliable and responsible cooling solutions for various applications.

Product Description

Rime Refrigerants R404A is available in three convenient package sizes: 10.9 kg, 2.7 kg, and 650 g, catering to various application requirements.

It is a well-balanced refrigerant blend designed for medium and low-temperature refrigeration.



Chemical Composition	<p>Rime Refrigerants R404A is a non-zeotropic blend consisting of three hydrofluorocarbon (HFC) refrigerants: R125 (44%), R143a (52%), and R134a (4%).</p> <p>The precise mixture ratios of these components in R404A ensure its optimal refrigeration properties. It has a low toxicity profile, enhancing its safety during handling and operation. This refrigerant blend is chemically stable under normal operating conditions.</p>
Molecular Formula	The molecular formula of Rime Refrigerants R404A is $C_2H_2F_4$ / CH_3CF_3 / CF_3CHF_2 .
Chemical Properties	<p>R404A is a non-flammable refrigerant, making it safe for use in various cooling and refrigeration applications.</p> <p>It has a low toxicity profile, enhancing its safety during handling and operation.</p> <p>This refrigerant blend is chemically stable under normal operating conditions.</p>

Applications

Rime Refrigerants R404A is commonly used in commercial refrigeration systems, including supermarket freezers, walk-in coolers, and ice machines.

It is also suitable for industrial applications, such as cold storage warehouses, to maintain low-temperature environments efficiently.

Benefits

R404A offers excellent cooling performance and is highly efficient, making it a trusted choice for temperature-sensitive applications.

Its wide application range and compatibility with existing equipment make it a versatile refrigerant option.

Rime Refrigerants R404A ensures consistent and reliable cooling, contributing to the preservation of perishable goods.

Lubrication

When using rime Refrigerants R404A, it is essential to use the recommended lubricants to maintain optimal system performance and lubrication.

We recommend using a lubricant such as polyolester (POE) that has been approved by the compressor manufacturer.

Proper lubrication is crucial for extending the lifespan of compressor components and ensuring smooth operation in refrigeration systems.

By incorporating Rime Refrigerants R404A into your refrigeration solutions, you can benefit from its reliable cooling performance, safety features, and versatility across various applications. Be sure to follow the recommended system lubrication and maintenance guidelines to maximize its efficiency and longevity.

Product Description

Rime Refrigerants offers R410A in three convenient package sizes: 11.3 kg, 2.8 kg, and 800 g, catering to a wide range of applications and project scales.

This refrigerant blend is specifically engineered for high-performance cooling systems, delivering efficient and reliable operation.



Chemical Composition	<p>Rime Refrigerants' R410A is a near azeotropic blend of two hydrofluorocarbon (HFC) refrigerants, R32 (50%) and R125 (50%), in a proprietary mixture.</p> <p>The molecular weights of R32 and R125 are 52.02 g/mol and 120.02 g/mol, respectively.</p>
Molecular Formula	<p>The molecular formula for R410A consists of the chemical symbols for its two components: CH₂F₂ (R32) and CF₃CHF₂ (R125).</p>
Chemical Properties	<p>R410A is a colorless, odorless gas with no ozone depletion potential (ODP).</p> <p>It exhibits non-flammable properties under typical conditions but should be handled with care.</p> <p>R410A has a relatively high global warming potential (GWP) and is subject to environmental regulations in some regions.</p> <p>The refrigerant has good thermodynamic properties, making it suitable for various air conditioning and refrigeration applications.</p>

Applications

Rime R410A is widely used in the HVAC industry for both residential and commercial applications.

It is preferred for air conditioning systems, heat pumps, and other cooling equipment.

Typical applications include comfort cooling and data center cooling.

Benefits

Rime Refrigerants' R410A ensures efficient cooling performance, meeting the demands of modern cooling systems.

It is a non-ozone-depleting refrigerant, aligning with environmental regulations.

R410A provides excellent heat transfer properties, contributing to energy-efficient operation.

Its wide range of package sizes allows for flexibility in usage, reducing waste and cost.

Lubrication

R410A is compatible with several synthetic lubricants commonly used in HVAC systems, ensuring smooth and reliable compressor operation.

It is essential to follow manufacturer recommendations for lubricant selection and system maintenance when using R410A refrigerant to maintain system integrity.

Rime Refrigerants' R410A offers a reliable and efficient solution for cooling and air conditioning needs across different applications while prioritizing environmental responsibility and performance.

Product Description

Rime Refrigerants offers R407C in two convenient package sizes: 11.3 kg and 2.8 kg.

Our R407C blend is carefully engineered to provide excellent cooling performance across a range of applications.



Chemical Composition	Rime R407C is a refrigerant non-azeotropic blend consisting of three hydrofluorocarbon (HFC) components: R32 (23%), R125 (25%), and R134a (52%).
Molecular Formula	The molecular formula of rime R407C is CH_2F_2 CF_3CHF_2 $\text{CF}_3\text{CH}_2\text{F}$
Chemical Properties	<p>Rime R407C exhibits a moderate GWP, making it an environmentally responsible choice.</p> <p>It is non-ozone-depleting and complies with international environmental regulations.</p> <p>This refrigerant has a relatively low toxicity level, ensuring safe handling when used according to recommended guidelines.</p>

Applications

Rime R407C is commonly used in air conditioning systems, heat pumps, and medium-temperature refrigeration equipment.

It is suitable for both residential and commercial applications, providing efficient and reliable cooling.

Benefits

Rime R407C delivers high-performance cooling while maintaining environmental responsibility.

Its non-ozone-depleting nature aligns with global environmental regulations.

Rime Refrigerants ensures product quality and consistency to meet the demands of HVAC and refrigeration professionals.

Lubrication

Rime R407C is compatible with polyolester (POE) oil. However it is essential to follow manufacturer recommendations for lubricant selection and system maintenance.

Lubrication guidelines provided by Rime Refrigerants should be followed to ensure optimal system performance and longevity.

Choose Rime Refrigerants R407C for your cooling needs, where efficient performance and environmental compliance are essential.

Product Description

Rime Refrigerants offers R32 in two convenient packages: 9.5 kg and 3 kg.

This refrigerant is carefully formulated to meet the demands of modern air conditioning and heat pump systems.

R32 is renowned for its high-performance characteristics, making it suitable for various cooling applications.



Chemical Composition	Rime R32 is a pure hydrofluorocarbon(HFC) refrigerant.
Molecular Formula	The molecular formula of Rime R32 is CH ₂ F ₂ .
Chemical Properties	<p>Rime R32 is known for its low GWP (Global Warming Potential) and zero ODP (Ozone Depletion Potential), making it an environmentally friendly choice.</p> <p>It has excellent thermodynamic properties, including a low boiling point and high cooling efficiency.</p> <p>Rime R32 is non-flammable under typical operating conditions and is compatible with standard lubricants and materials used in refrigeration systems.</p>

Applications

Rime R32 is commonly used in residential and commercial air conditioning systems.

It's a preferred choice for heat pump applications due to its efficient heat transfer properties.

This refrigerant is suitable for both new installations and retrofitting existing systems.

Benefits

Rime R32 provides exceptional cooling efficiency, ensuring comfortable indoor environments even in demanding conditions.

Its low GWP contributes to reducing the carbon footprint of cooling systems, aligning with environmental regulations.

Its non-flammable nature and compatibility with lubricants offer a safe and reliable refrigerant solution.

Lubrication

rime R32 is compatible with synthetic lubricants used in HVAC systems.

Proper lubrication is essential for maintaining the longevity and performance of the equipment, and Rime R32 ensures smooth operation without compromising lubricant integrity.

Rime Refrigerants offers R32 in various packaging options, catering to different project requirements. Whether for residential or commercial applications, Rime R32 is an environmentally responsible and high-performance refrigerant choice for HVAC and refrigeration professionals

Product Description

Rime Refrigerants offers R600a in two package sizes: 6.5 kg and 120 g.

R600a is a natural refrigerant known for its eco-friendly properties.

It is a colorless and odorless gas, ensuring it does not affect the odor or taste of food products in refrigeration.



Chemical Composition	Rime R600a is a hydrocarbon refrigerant composed of Isobutane ($\text{CH}_3\text{CH}_3\text{CH}(\text{CH}_3)$).
Molecular Formula	The molecular formula of Rime R600a is C_4H_{10} .
Chemical Properties	<p>Rime R600a is a highly flammable hydrocarbon refrigerant. It has excellent thermodynamic properties, making it efficient for refrigeration.</p> <p>Rime R600a is non-toxic and has a low global warming potential (GWP), making it environmentally friendly.</p>

Applications

Rime R600a is commonly used in domestic refrigerators and freezers in household and commercial applications.

It is suitable for low-temperature applications and provides efficient cooling for various cooling systems.

Benefits

Environmentally Friendly: Rime R600a has a low GWP, making it a sustainable choice for refrigeration, aligning with environmental regulations and reducing the carbon footprint.

Energy Efficiency: R600a offers excellent thermodynamic properties, leading to energy-efficient cooling and lower electricity consumption.

Compatibility: It is compatible with commonly used refrigeration oils and materials, reducing the need for system modifications during retrofitting or servicing.

Lubrication

Rime R600a uses mineral oil as a lubricant in refrigeration systems.

Proper lubrication ensures the smooth operation and longevity of the compressor and other system components in refrigeration equipment.

When using Rime Refrigerants' R600a, it's essential to adhere to safety guidelines, given its flammability. Ensure proper handling, storage, and maintenance practices to maximize its benefits while maintaining safety standards.

Product Description

R507A by Rime Refrigerants is a refrigerant blend specifically designed for medium and low-temperature refrigeration applications.

It is engineered to provide efficient cooling and temperature control.



Chemical Composition	R507A is an azeotropic blend formulated by Rime Refrigerants. It consists of two hydro-fluorocarbon (HFC) refrigerants, R125 and R143a, blended in specific proportions to achieve the desired performance characteristics.
Molecular Formula	The molecular formula for R507A is CF_3CHF_2 (R125) and $\text{C}_2\text{H}_3\text{F}_3$ (R143a), reflecting its chemical composition.
Chemical Properties	<p>R507A exhibits stable chemical properties under typical operating conditions. It is non-toxic, non-flammable, and non-ozone-depleting, making it a safe and environmentally friendly refrigerant choice.</p> <p>It has a relatively low Global Warming Potential (GWP) compared to some older refrigerants, contributing to reduced environmental impact.</p>

Applications

Rime Refrigerants' R507A is commonly used in a wide range of commercial refrigeration systems, including supermarket refrigerated display cases, cold storage, and industrial refrigeration units.

Benefits

R507A provides reliable and efficient cooling for various applications.

Its non-flammable and stable properties enhance safety during handling and operation.

The blend's compatibility with existing systems makes it a cost-effective choice for retrofitting and servicing.

Lubrication

Rime Refrigerants' R507A typically requires polyolester (POE) oil for lubrication, ensuring optimal performance and system longevity.

Proper oil selection and maintenance are essential for efficiently operating R507A-based refrigeration systems.

R507A, offered by Rime Refrigerants, is a trusted refrigerant blend known for its reliability and environmental compatibility. It meets the demands of various refrigeration applications while adhering to safety and environmental standards.

Product Description

Rime Refrigerants R22 is available in a 13.6 kg package, designed for use in HVAC and refrigeration systems.

It is a versatile and widely used refrigerant known for its effective cooling properties.



Chemical Composition	<p>Rime R22 is a hydrochlorofluorocarbon (HCFC) refrigerant.</p> <p>Its chemical composition consists of chlorine, fluorine, hydrogen, and carbon atoms.</p> <p>The specific chemical formula for R22 is CHClF_2.</p>
Molecular Formula	<p>The molecular formula of Rime R22 is CHClF_2, indicating one carbon (C) atom, one hydrogen (H) atom, one chlorine (Cl) atom, and two fluorine (F) atoms.</p>
Chemical Properties	<p>R22 is classified as an HCFC refrigerant. It has a boiling point of approximately -40.8°C (-41.4°F) at atmospheric pressure.</p> <p>Rime R22 is known for its good thermodynamic properties, making it suitable for various cooling applications.</p>

Applications

Rime R22 is commonly used in residential and commercial air conditioning systems.

It is also utilized in refrigeration equipment, including refrigerators, freezers, and cold storage units.

R22 is suitable for medium and high-temperature cooling applications.

Benefits

Rime Refrigerants R22 offers efficient and reliable cooling performance, making it a trusted choice for many HVAC professionals.

It has been used for decades and is well-understood, making it easy to service and maintain existing systems.

R22 is compatible with many existing equipment and components in the HVAC and refrigeration industry.

Lubrication

Proper lubrication is essential for the efficient operation of refrigeration compressors. R22 typically requires mineral oil-based lubricants, although some systems may use synthetic oils depending on the equipment and manufacturer's recommendations.

Rime Refrigerants R22 has a long history of use in the industry and remains a viable option for specific applications. However, it's important to note that due to environmental concerns related to ozone depletion, R22 is being phased out in many countries, and alternative refrigerants with lower ecological impact are recommended for new systems and retrofits. Always adhere to local regulations and guidelines when handling and using refrigerants.



Product Description

Rime R290 in a 13.6 kg cylinder is a natural refrigerant for refrigeration and air conditioning systems.

It is a propane-based refrigerant with minimal environmental impact and is gaining popularity due to its low GWP and high energy efficiency.

Chemical Composition	<p>Rime R290 is a pure hydrocarbon refrigerant.</p> <p>Its chemical formula is C_3H_8, indicating that it consists of three carbon atoms and eight hydrogen atoms.</p>
Molecular Formula	<p>The molecular formula for Rime R290 is C_3H_8, representing its simple and environmentally friendly composition.</p>
Chemical Properties	<p>Rime R290 is a highly flammable hydrocarbon with a low global warming potential (GWP).</p> <p>Its excellent thermodynamic properties make it suitable for various refrigeration and air conditioning applications.</p> <p>R290 is non-toxic and non-ozone depleting, making it an environmentally responsible choice.</p>

Applications

Rime R290 is commonly used in commercial and residential refrigeration units, including refrigerators, freezers, and display cases.

It is suitable for air conditioning systems, heat pumps, and vending machines, where its high efficiency contributes to energy savings.

Rime R290 is also used in industrial refrigeration, including cold storage and process cooling applications.

Benefits

Environmentally Friendly: Rime R290 is eco-friendly, with zero GWP and no ozone-depleting potential.

Energy Efficient: It offers excellent thermodynamic properties, leading to energy-efficient cooling and reduced electricity consumption.

Low Global Warming Potential: R290 has one of the lowest GWP among refrigerants, making it a responsible choice for reducing greenhouse gas emissions.

Safety: While flammable, R290 is safe when handled following industry-standard safety practices.

Lubrication

Rime R290 refrigerant typically requires compatible lubricants in refrigeration systems to ensure proper lubrication of the compressor and components.

The choice of lubricant should align with the manufacturer's recommendations for the specific application.

Rime Refrigerants offers R290 as a sustainable, efficient, and safe refrigerant option for various cooling and refrigeration needs. It aligns with our commitment to environmentally responsible refrigeration solutions.

R417a

13.6 kg

Product Description

Rime R417a (13.6 kg) is a premium refrigerant product designed for efficient and eco-friendly cooling.

It is carefully manufactured and quality-controlled to meet industry standards.



Chemical Composition	<p>The Rime R417a is a non-azeotropic refrigerant blend composed of components that are specially formulated to meet specific cooling requirements.</p> <p>It comprises two hydrofluorocarbons (HFCs) and one hydrocarbon refrigerant, each contributing to its performance.</p>
Molecular Formula	<p>Refrigerant R417a is a blend used to replace R22 in certain refrigeration and air conditioning systems.</p> <p>The molecular formula of R417a components are: CH₂FCF₃ CF₃CHF₂ C₄H₁₀</p>
Chemical Properties	<p>Rime R417a exhibits stable chemical properties under typical operating conditions. It is non-flammable, enhancing safety during use.</p> <p>This refrigerant is known for its low toxicity, making it a reliable choice for various applications.</p>

Applications

Rime R417a is used in air conditioning and refrigeration systems, both in residential and commercial settings.

It is a refrigerant suitable for retrofitting and servicing existing equipment, making it a go-to choice for maintenance professionals.

Benefits

Excellent Cooling Performance: Rime R417a delivers reliable and efficient cooling, ensuring comfortable environments and temperature control.

Environmental Responsibility: It has a low environmental impact and zero ozone depletion potential, aligning with global efforts to reduce greenhouse gas emissions.

Versatility: This refrigerant is compatible with various equipment types, providing system design and maintenance flexibility.

Lubrication

Rime R417a is formulated to work with common lubricants used in refrigeration systems, ensuring smooth operation and extended equipment life.

Proper lubrication is essential for the efficient functioning of compressors and other components in the cooling system.

Rime Refrigerants takes pride in offering R417A as part of its product line, providing a reliable and environmentally responsible solution for cooling and refrigeration needs.

Product Description

Rime R1234yf is a high-quality refrigerant designed for automotive air conditioning systems.

It is a safe and efficient replacement for older refrigerants like R134a in car air conditioning systems.

Rime R1234yf is known for its compatibility with modern automotive cooling systems and its ability to provide efficient cooling.



Chemical Composition	R1234yf is a hydrofluoroolefin (HFO) refrigerant with the chemical formula $\text{CH}_2=\text{CFCF}_3$. This formula signifies its unique molecular structure, which includes carbon (C), hydrogen (H), fluorine (F), and an unsaturated hydrocarbon group (olefin).
Molecular Formula	The molecular formula of R1234yf, also known as 2,3,3,3-Tetrafluoropropene, is $\text{C}_3\text{H}_2\text{F}_4$.
Chemical Properties	<p>Rime R1234yf has a low global warming potential (GWP), making it an environmentally friendly choice.</p> <p>It is non-ozone-depleting and does not harm the Earth's ozone layer.</p> <p>This refrigerant exhibits excellent thermal stability and heat transfer properties.</p> <p>It has a relatively low boiling point and is suitable for use in automotive air conditioning systems.</p>

Applications

Rime R1234yf is primarily used in automotive air conditioning systems.

Its composition meets the latest environmental regulations, making it a preferred choice for new vehicle models.

Benefits

Environmentally Friendly: Rime R1234yf has a significantly lower GWP than older refrigerants, contributing to reduced greenhouse gas emissions.

Energy Efficiency: It offers improved energy efficiency, enhancing the overall performance of automotive air conditioning systems.

Ozone Layer Protection: This refrigerant does not deplete the ozone layer, ensuring the environment's safety.

Regulatory Compliance: Rime R1234yf complies with the latest regulations, making it a future-proof choice for automakers.

Lubrication

Rime R1234yf typically requires specific lubricants that are compatible with its chemical properties.

Using the recommended lubricants is important to ensure optimal system performance and longevity.

Rime R1234yf is a cutting-edge refrigerant designed to meet the evolving environmental standards in the automotive industry. Its low GWP and environmental compatibility make it a sustainable choice for modern vehicle air conditioning systems.

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COOLER GREENER AFFORDABLE!



Why Rime Refrigerants?

Efficiency Meets Responsibility: Experience cooling efficiency like never before while making a positive impact on the environment. Our refrigerants have a low Global Warming Potential (GWP) and zero Ozone Depletion Potential (ODP), all without breaking the bank.

Adaptable Excellence: Whether it's residential, commercial, or automotive, Rime Refrigerants have you covered. Our products are engineered for top-tier performance across a range of cooling applications, without the high price tag.

Professional's Choice: HVAC and refrigeration experts trust Rime Refrigerants for reliability and performance. Join the ranks of professionals who choose the best, and discover that excellence doesn't have to come at a premium.

Safe and Compliant: Rest easy knowing our refrigerants meet industry standards and safety regulations, all while keeping your costs in check. Safety, compliance, and affordability—our trifecta of priorities.

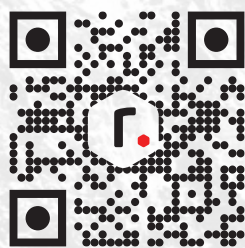
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