

ITALY
TRADEMARK



KrioNext[®]
REFRIGERANT SOLUTIONS

2024
PRODUCT
CATALOG



General Gas KrioNext Co., Ltd. is a company of General Gas S.r.l. Group Italy, for 50 years a leading company in the European Refrigeration and Air Conditioning market, with a high level of specialized know-how and expertise.

The objective of the project is to serve Middle East, Africa and South American markets at competitive prices, with HFC refrigerants manufactured and packaged in full compliance with the highest EU and USA AHRI700 standards.

At GeneralGas we love and strive to find customer-centric solutions developed to adapt to changing business scenarios, anticipating customers' needs and new trends, designing innovative services and solutions around them, in complex and rapidly changing markets.

GeneralGas
GENERAL GAS KRIONEXT CO., LTD.

 **KrioNext**[®]
REFRIGERANT SOLUTIONS



2024

PRODUCT CATALOG

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R-134a

R-410A

R-407C

R-404A

R-507

R-32

R-134a

The reference refrigerant for motor vehicle air conditioning

KrioNext[®] 134a is one of the main product replacing HCFC gases and is the non-ozone depleting and non polluting option. The product has an energetic efficiency and a refrigeration capacity similar to R-12, but with a lower toxicity.

KrioNext[®] 134a is a reference refrigerant for motor vehicle air conditioning. It can be used in home and commercial refrigeration as well as in commercial and industrial air conditioning. KrioNext[®] 134a is one of the most common components in refrigerants on the market.



Industrial Refrigeration



Commercial Refrigeration



Automotive



Residential A/C



Heating & Plumbing



Chiller

TEMPERATURE RANGE



Zero ODP

Medium GWP

1.430 (1.300)
IPCC AR4 (AR5)

Applications:

KrioNext[®] 134a is used in all motor vehicle air conditioning systems.

KrioNext[®] 134a has been developed for many applications in refrigeration, as for example supermarket display cabinets, cold rooms and domestic refrigerators. The product can be used in packaged centrifugal chillers.



ANTI-COUNTERFEITING SEAL



KrioNext[®] in DOT-39 cylinder
13,77 Lt/22 Bar - 13,6 Kg - valve 1/4" SAE

KNX-R134A-DOT

Cylinders per Pallet # 40 or Cylinders per Pallet # 90



KrioNext DOT-39 carbon steel cylinders
1 Lt/950 grams (valve 1/4" SAE RH)

Cylinders per Package # 6
KNX-R134A-DOT-6PCS
Packages per Pallet # 168

Cylinders per Package # 12
KNX-R32-DOT-12PCS
Packages per Pallet # 84



KrioNext Alu T-Ped refillable aluminum cylinders
1,1 Lt/1000 grams (valve 1/4" SAE RH)

Cylinders per Package # 6
KNX-R134A-ALU-6PCS
Packages per Pallet # 72

KrioNext® 134a | R-134a

www.generalgas.eu/krionext

Quality Standard

Product	R-134a
Type of Product	Substance
Chemical Formula	CH ₂ F-CF ₃
Chemical Name	Norflurane

Technical Specification	Reporting Units	R-134a
Characteristics:		
Purity	%	≥ 99,5
Boiling Point ¹	°C @ 101.3 kPa	-26.1
Boiling Point Range ¹	K	± 0.3
Critical Temperature ¹	°C	101.1
Isomer Content	% by weight	0-0.5 R-134a
Vapor Phase Contaminants:		
Air and Other Non-condensables, Maximum	% by volume @ 25.0°C	1.5
Liquid Phase Contaminants:		
Water, Maximum	ppm by weight	10
All Other Volatile Impurities, Maximum	% by weight	0.5
Halogenated Unsaturated Volatile Impurities, Maximum	ppm by weight	See Footnote ²
High Boiling Residue, Maximum	% by volume or % by weight	0.01
Particulates/Solids	Pass or Fail	Visually clean
Acidity, Maximum	ppm by weight (as HC1)	1
Chloride ³	Pass or Fail	No visible turbidity

1. Boiling points, boiling point ranges and critical temperatures, although not required, are provided for informational purposes.

2. Up to 5000 ppm R-1234yf is acceptable as a halogenated unsaturated volatile impurity in R-134a.

3. Recognized chloride level for pass/fail is about 3 ppm.

Values meet the International Specification AHRI 700-2019.

Date of Drafting 15.11.2022

Date of Final Revision 15.11.2022

Approved by

dr. Massimiliano Napolitano



R-410A

The refrigerant with high energy efficiency index

KrioNext® 410A is an azeotropic mixture composed of HFC-32/HFC-125, produced by Honeywell as a long term replacement product of R-22 (HCFC-22), in new equipments. This non ozone depleting mixture is, from the energetic point of view, very productive.

KrioNext® 410A has higher refrigerating capacity and pressures compared to R-22, and a lower toxicity. Its use is very simple because it is an azeotropic mixture. KrioNext® 410A is a Honeywell patent and has been proved to be non flammable by Underwriters' Laboratory (UL).



Residential
A/C



Heating
& Plumbing



Chiller

TEMPERATURE RANGE



Zero ODP

Medium GWP

2088 (1924)
IPCC AR4 (AR5)

Applications:

KrioNext® 410A is used in new home and small shop air conditioning systems.

KrioNext® 410A is an excellent refrigerant in new concept water coolers not provided with centrifugal compressor.

KrioNext® 410A can be used as replacement product of R-22 in new commercial refrigeration systems (low and medium temperature), including supermarket refrigerated display cases and refrigerated transport.



ANTI-COUNTERFEITING SEAL



KrioNext® in DOT-39 cylinder
13,77 Lt / 35 Bar - 11,3 Kg - valve 1/4" SAE

KNX-R410A-DOT

Cylinders per Pallet # 40 — or — Cylinders per Pallet # 90



KrioNext DOT-39 carbon steel cylinders
1 Lt/650 grams (valve 1/4" SAE RH)

Cylinders per Package # 6
KNX-R410A-DOT-6PCS
Packages per Pallet # 168

Cylinders per Package # 12
KNX-R410A-DOT-6PCS
Packages per Pallet # 84



KrioNext Alu T-Ped refillable aluminum cylinders
1,1 Lt/900 grams (valve 1/4" SAE RH)

Cylinders per Package # 6
KNX-R410A-ALU-6PCS
Packages per Pallet # 72

KrioNext® 410A | R-410A

www.generalgas.eu/krionext

Quality Standard

Product	R-410A		
Type of Product	Blend		
- Refrigerant Components	-	R-32	R-125
- Nominal Composition	% by weight	50%	50%
- Allowable Composition	% by weight	48.5÷50.5 (%)	49.5÷51.5 (%)

Technical Specification	Reporting Units	R-410A
Vapor Phase Contaminants:		
Air and Other Non-condensables, Maximum	% by volume @ 25.0°C	1.5
Liquid Phase Contaminants:		
Water, Maximum	ppm by weight	10
All Other Volatile Impurities, Maximum	% by weight	0.5
High Boiling Residue, Maximum	% by volume or % by weight	0.01
Particulates/Solids	Pass or Fail	Visually clean
Acidity, Maximum	ppm by weight (as HC1)	1
Chloride ¹	Pass or Fail	No visible turbidity
Characteristics:		
Bubble Point ²	°C @ 101.3 kPa	-51.4
Dew Point ²	°C @ 101.3 kPa	-51.4
Critical Temperature ²	°C	71.4
1. Recognized chloride level for pass/fail is about 3 ppm. 2. Boiling points, boiling point ranges and critical temperatures, although not required, are provided for informational purposes.		
Values meet the International Specification AHRI 700-2019.		

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Approved by
dr. Massimiliano Napolitano

R-407C

The refrigerant used in home air conditioning

KrioNext® 407C is a zeotropic ternary mixture composed of HFC-32/HFC-125/HFC-134a. It has been developed as a replacement for R-22 (HFC-22). Il KrioNext® 407C is a non ozone depleting refrigerant and lends itself to many uses in refrigeration and air conditioning systems.

KrioNext® 407C is a zeotropic ternary mixture that, unlike azeotropic fluid, changes its temperature during evaporation and condensation phases, for a given value of pressure.



Residential
A/C



Heating
& Plumbing



Chiller

TEMPERATURE RANGE



TN



Tpos

Zero ODP

Medium GWP

1774 (1624)
IPCC AR4 (AR5)

KrioNext® 407C has a moderate T° Glide (5÷7 °C). Therefore it is very important that KrioNext® 407C is transferred only as a liquid state when charging a system, and not as a vapour state. That would cause a change in the composition of the refrigerant, which could damage the plant.

Applications:

KrioNext® 407C is used in home and small shop air conditioning systems. KrioNext® 407C is also used in water chillers not provided with centrifugal compressor, and in medium temperature refrigeration systems.



ANTI-COUNTERFEITING SEAL



KrioNext® in DOT-39 cylinder
13,77 Lt/27 Bar - 11,3 Kg - valve 1/4" SAE

KNX-R407C-DOT

Cylinders per Pallet # 40 — or — Cylinders per Pallet # 90



KrioNext DOT-39 carbon steel cylinders
1 Lt/650 grams (valve 1/4" SAE RH)

Cylinders per Package # 6
KNX-R407C-DOT-6PCS
Packages per Pallet # 168

Cylinders per Package # 12
KNX-R407C-DOT-12PCS
Packages per Pallet # 84



KrioNext Alu T-Ped refillable aluminum cylinders
1,1 Lt/900 grams (valve 1/4" SAE RH)

Cylinders per Package # 6
KNX-R407C-ALU-6PCS
Packages per Pallet # 72

KrioNext® 407C | R-407C

www.generalgas.eu/krionext

Quality Standard

Product	R-407C			
Type of Product	Blend			
- Refrigerant Components	-	R-32	R-125	R-134a
- Nominal Composition	% by weight	23%	25%	52%
- Allowable Composition	% by weight	21÷25 (%)	23÷27 (%)	50÷54 (%)

Technical Specification	Reporting Units	R-407C
Vapor Phase Contaminants:		
Air and Other Non-condensables, Maximum	% by volume @ 25.0°C	1.5
Liquid Phase Contaminants:		
Water, Maximum	ppm by weight	10
All Other Volatile Impurities, Maximum	% by weight	0.5
High Boiling Residue, Maximum	% by volume or % by weight	0.01
Particulates/Solids	Pass or Fail	Visually clean
Acidity, Maximum	ppm by weight (as HC1)	1
Chloride ¹	Pass or Fail	No visible turbidity
Characteristics:		
Bubble Point ²	°C @ 101.3 kPa	-43.6
Dew Point ²	°C @ 101.3 kPa	-36.6
Critical Temperature ²	°C	86.0
<p>1. Recognized chloride level for pass/fail is about 3 ppm.</p> <p>2. Boiling points, boiling point ranges and critical temperatures, although not required, are provided for informational purposes.</p> <p>Values meet the International Specification AHRI 700-2019.</p>		

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Approved by
dr. Massimiliano Napolitano

R-404A

The reference product for commercial refrigeration

KrioNext® 404A is a non-ozone depleting refrigerant gas developed for long-term replacement of R-22 (HCFC) in low and medium temperature commercial refrigeration.

KrioNext® 404A is a slightly zeotropic mixture. For this reason it is necessary to charge systems only with refrigerant in the liquid phase, and not with vapour because that would cause a change in the composition of refrigerant that could damage the system.



Industrial Refrigeration



Commercial Refrigeration



Refrigerated Transports

TEMPERATURE RANGE



TN



BT

Zero ODP

High GWP

3922 (3943)
IPCC AR4 (AR5)

Applications:

KrioNext® 404A is used in low and medium commercial and industrial refrigeration, as for example supermarket display cabinets, cold rooms, stands, refrigerated transport and ice making machines.



ANTI-COUNTERFEITING SEAL



KrioNext® in DOT-39 cylinder
13,77 Lt/27 Bar - 10,9 Kg - valve 1/4" SAE

KNX-R404A-DOT

Cylinders per Pallet # 40 — or — Cylinders per Pallet # 90



KrioNext DOT-39 carbon steel cylinders
1 Lt/650 grams (valve 1/4" SAE RH)

Cylinders per Package # 6
KNX-R404A-DOT-6PCS
Packages per Pallet # 168

Cylinders per Package # 12
KNX-R404A-DOT-12PCS
Packages per Pallet # 84



KrioNext Alu T-Ped refillable aluminum cylinders
1,1 Lt/900 grams (valve 1/4" SAE RH)

Cylinders per Package # 6
KNX-R404A-ALU-6PCS
Packages per Pallet # 72

KrioNext® 404A | R-404A

www.generalgas.eu/krionext

Quality Standard

Product	R-404A			
Type of Product	Blend			
- Refrigerant Components	-	R-125	R-143a	R-134a
- Nominal composition	% by weight	44%	52%	4%
- Allowable composition	% by weight	42÷46 (%)	51÷53 (%)	2÷6 (%)

Technical Specification	Reporting Units	R-404A
Vapor Phase Contaminants:		
Air and Other Non-condensables, Maximum	% by volume @ 25.0°C	1.5
Liquid Phase Contaminants:		
Water, Maximum	ppm by weight	10
All Other Volatile Impurities, Maximum	% by weight	0.5
High Boiling Residue, Maximum	% by volume or % by weight	0.01
Particulates/Solids	Pass or Fail	Visually clean
Acidity, Maximum	ppm by weight (as HC1)	1
Chloride ¹	Pass or Fail	No visible turbidity
Characteristics:		
Bubble Point ²	°C @ 101.3 kPa	-46.2
Dew Point ²	°C @ 101.3 kPa	-45.5
Critical Temperature ²	°C	72.1

1. Recognized chloride level for pass/fail is about 3 ppm.

2. Boiling points, boiling point ranges and critical temperatures, although not required, are provided for informational purposes.

Values meet the International Specification AHRI 700-2019.

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Approved by

dr. Massimiliano Napolitano



R-507

Low and medium temperature commercial refrigeration

KrioNext[®] 507 is a refrigerant gas composed of HFC-125 and HFC-143a. It has been developed by Honeywell as a long-term replacement product for R-502.

KrioNext[®] 507 is a non polluting azeotropic mixture. It does not damage the ozone layer. It is an excellent product for the use in low and medium temperature.



Industrial Refrigeration



Commercial Refrigeration



Refrigerated Transports

TEMPERATURE RANGE



TN



BT



Zero ODP



High GWP

3985 (3985)
IPCC AR4 (AR5)

Applications:

KrioNext[®] 507 is used for a wide range of applications in low and medium temperature commercial refrigeration, including supermarket counter fridge, refrigerated transport, stand and ice maker machine.



ANTI-COUNTERFEITING SEAL



KrioNext[®] in DOT-39 cylinder
13,77 Lt / 27 Bar - 11,3 Kg - valve 1/4" SAE

KNX-R507-DOT

Cylinders per Pallet # 40 — or — Cylinders per Pallet # 90

KrioNext® 507 | R-507

www.generalgas.eu/krionext

Quality Standard

Product	R-507		
Type of Product	Blend		
- Refrigerant Components	-	R-125	R-143a
- Nominal Composition	% by weight	50%	50%
- Allowable Composition	% by weight	49.5÷51.5 (%)	48.5÷50.5 (%)

Technical Specification	Reporting Units	R-507
Vapor Phase Contaminants:		
Air and Other Non-condensables, Maximum	% by volume @ 25.0°C	1.5
Liquid Phase Contaminants:		
Water, Maximum	ppm by weight	10
All Other Volatile Impurities, Maximum	% by weight	0.5
High Boiling Residue, Maximum	% by volume or % by weight	0.01
Particulates/Solids	Pass or Fail	Visually clean
Acidity, Maximum	ppm by weight (as HC1)	1
Chloride ¹	Pass or Fail	No visible turbidity
Characteristics:		
Bubble Point ²	°C @ 101.3 kPa	-46.7
Dew Point ²	°C @ 101.3 kPa	-46.7
Critical Temperature ²	°C	70.6
1. Recognized chloride level for pass/fail is about 3 ppm. 2. Boiling points, boiling point ranges and critical temperatures, although not required, are provided for informational purposes.		
Values meet the International Specification AHRI 700-2019.		

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Approved by
dr. Massimiliano Napolitano

R-32

The low GWP alternative to R-410A in Air Conditioning systems

KrioNext® 32 is an HFC refrigerant used so far as component in blends of R-410A ed R-407C.

Thanks to its energy and environmental efficiency, KrioNext® 32 has been already used by major manufacturers of household airconditioners systems.

KrioNext® 32 has a GWP - Global Warming Potential - considerably lower than R-410A. The product is used in low coolant temperature systems.



Residential
A/C



Heating
& Plumbing

TEMPERATURE RANGE



Zero ODP

LowGWP

675 (677)
IPCC AR4 (AR5)

KrioNext® 32 is a mildly flammable gas. KrioNext® 32 needs the use of Polyol Ester Oil (POE), with a viscosity specific for R-32.

Applications:

KrioNext® 32 is used in residential and commercial air conditioning systems.



ANTI-COUNTERFEITING SEAL



KrioNext® in DOT-39 cylinder
13,4 Lt/27 Bar - 9.5 Kg - valve 1/4" SAE

KrioNext® in DOT-39 cylinder
4,5 Lt / 39 Bar - 3 Kg - valve 1/4" SAE

KNX-R32-DOT-13-4

Cylinders per Pallet # 40 — or — Cylinders per Pallet # 90

KNX-R32-DOT

Cylinders per Pallet # 175



KrioNext DOT-39 carbon steel cylinders
1 Lt/650 grams (valve 1/4" SAE RH)

Cylinders per Package # 6
KNX-R32-DOT-6PCS
Packages per Pallet # 168

Cylinders per Package # 12
KNX-R32-DOT-12PCS
Packages per Pallet # 84



KrioNext Alu T-Ped refillable aluminum cylinders
1,1 Lt/800 grams (valve 1/4" SAE RH)

Cylinders per Package # 6
KNX-R32-ALU-6PCS
Packages per Pallet # 72

KrioNext® 32 | R-32

www.generalgas.eu/krionext

Quality Standard

Product	R-32
Product Type	Substance
Chemical Formula	CH ₂ F ₂
Chemical Name	Difluoromethane

Technical Specification	Reporting Units	R-32
Characteristics:		
Purity	%	≥ 99,9
Boiling Point ¹	°C @ 101.3 kPa	-51.7
Boiling Point Range ¹	K	± 0.3
Critical Temperature ¹	°C	78.1
Isomer Content	% by weight	Not Applicable
Vapor Phase Contaminants:		
Air and Other Non-condensables, Maximum	% by volume @ 25.0°C	1.5
Liquid Phase Contaminants:		
Water, Maximum	ppm by weight	10
All Other Volatile Impurities, Maximum	% by weight	0.5
Halogenated Unsaturated Volatile Impurities, Maximum	ppm by weight	40
High Boiling Residue, Maximum	% by volume or % by weight	0.01
Particulates/Solids	Pass or Fail	Visually clean
Acidity, Maximum	ppm by weight (as HC1)	1
Chloride ²	Pass or Fail	No visible turbidity

1. Boiling points, boiling point ranges and critical temperatures, although not required, are provided for informational purposes.

2. Recognized chloride level for pass/fail is about 3 ppm.

Value meet the International Specification AHRI 700-2019

Date of Drafting 15.11.2022

Date of Final Revision 15.11.2022

Approved by

dr. Massimiliano Napolitano



KrioNext® Loading Layout

www.generalgas.eu/krionext

KrioNext® in DOT-39 cylinder 13,77 Lt - valve 1/4" SAE

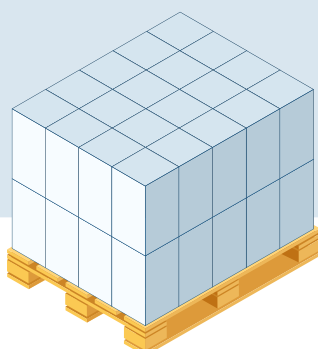


R-134a	22 Bar - 13,6 Kg	KNX-R134A-DOT
R-404A	27 Bar - 10,9 Kg	KNX-R404A-DOT
R-407C	27 Bar - 11,3 Kg	KNX-R407C-DOT
R-410A	35 Bar - 11,3 Kg	KNX-R410A-DOT
R-507	27 Bar - 11,3 Kg	KNX-R507-DOT

Pallet size
950 x 1200 mm - H. 110 mm

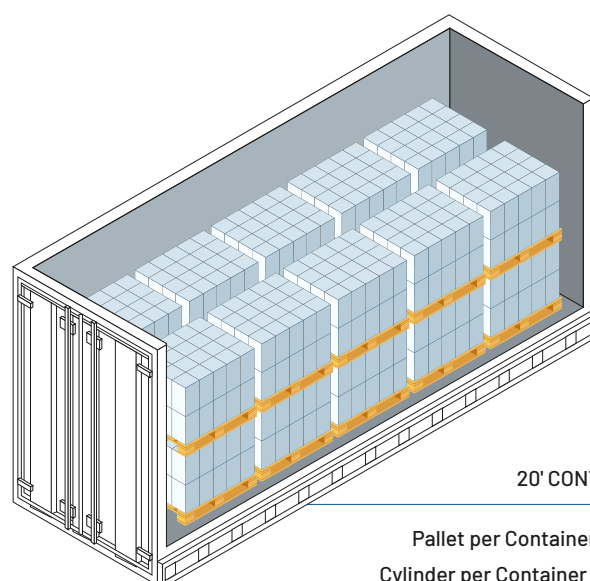


20' CONTAINER - layout 01



Cylinders per Pallet

40



20' CONTAINER

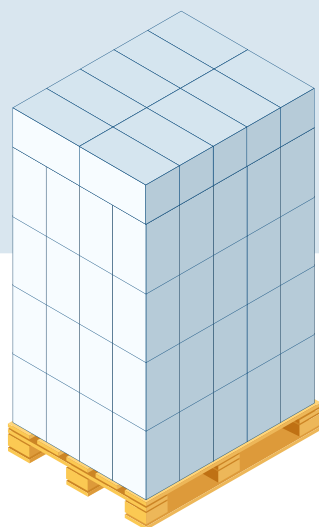
Pallet per Container **# 20**
Cylinder per Container **# 800**

KrioNext® Loading Layout

www.generalgas.eu/krionext

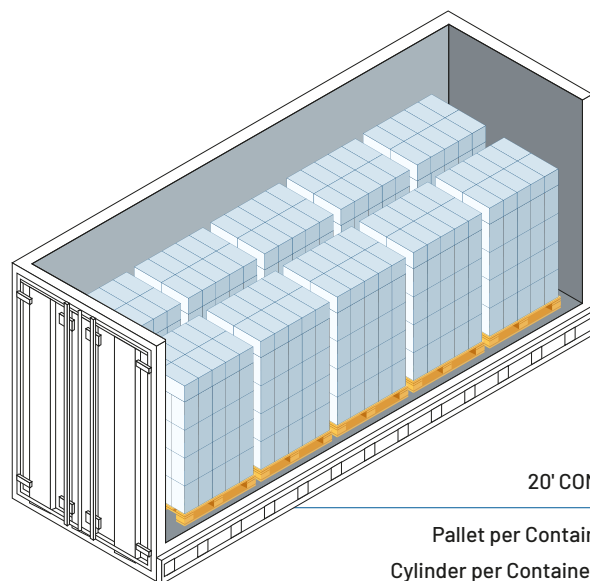
KrioNext® in DOT-39 cylinder 13,77 Lt - valve 1/4" SAE

20' CONTAINER - layout 02



Cylinders per Pallet

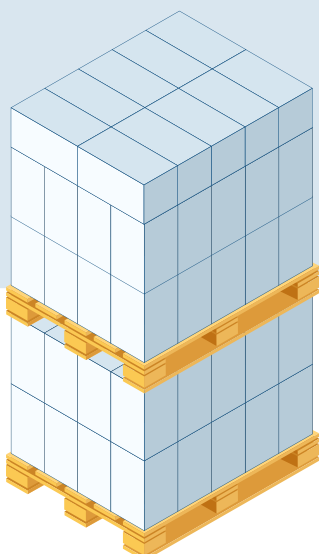
90



20' CONTAINER

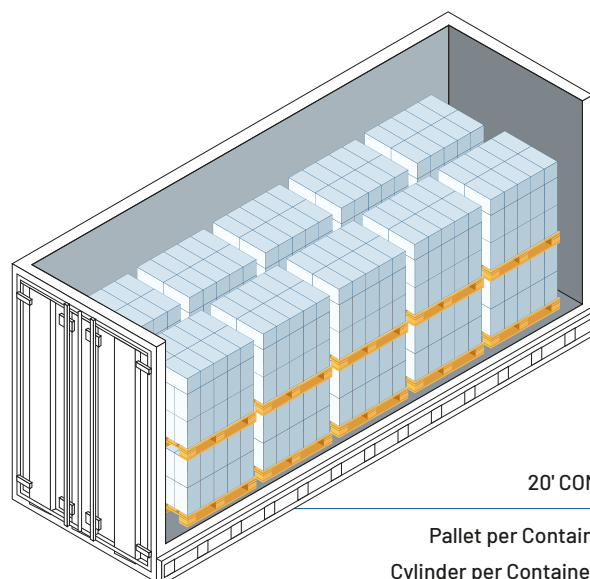
Pallet per Container **# 10**
Cylinder per Container **# 900**

20' CONTAINER - layout 03



Cylinders per Pallet

40 + # 50



20' CONTAINER

Pallet per Container **# 20**
Cylinder per Container **# 900**

KrioNext® Loading Layout

www.generalgas.eu/krionext

KrioNext® in Alu T-Ped refillable aluminum cylinders - 1,1 Lt - valve 1/4" SAE RH

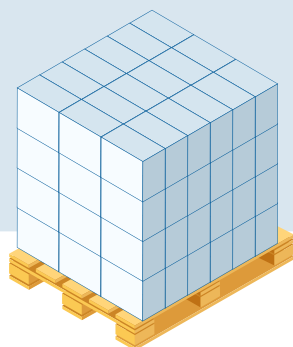


R-134a	1000 grams	KNX-R134A-ALU-6PCS
R-404A	900 grams	KNX-R404A-ALU-6PCS
R-407C	900 grams	KNX-R407C-ALU-6PCS
R-410A	900 grams	KNX-R410A-ALU-6PCS
R-32	800 grams	KNX-R32A-ALU-6PCS

Pallet size
950 x 1200 mm - H. 110 mm



20' CONTAINER



Cylinders per Package

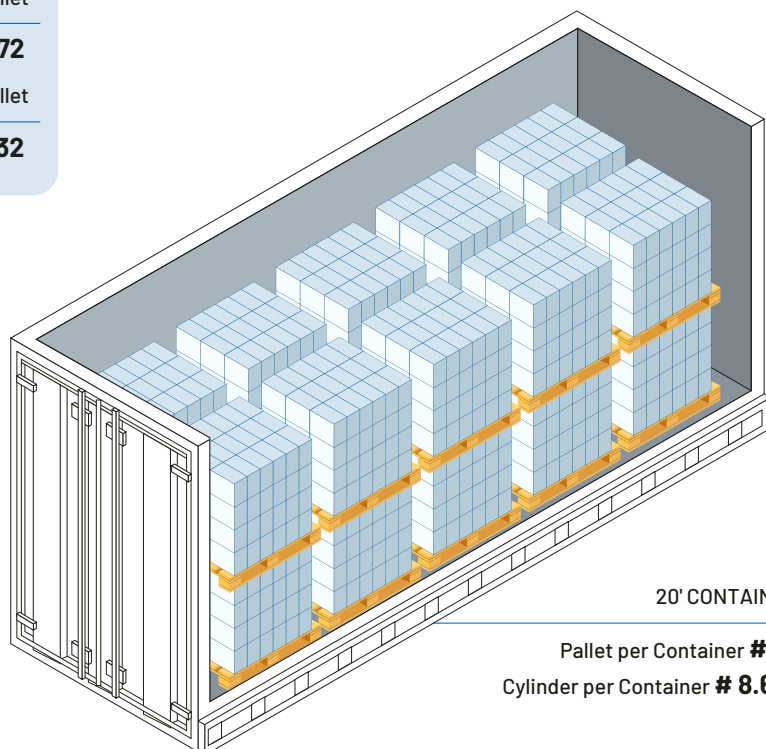
6

Package per Pallet

72

Cylinders per Pallet

432



20' CONTAINER

Pallet per Container **# 20**
Cylinder per Container **# 8.640**

KrioNext® Loading Layout

www.generalgas.eu/krionext

KrioNext® in DOT-39 carbon steel cylinders - 1 Lt - valve 1/4" SAE RH

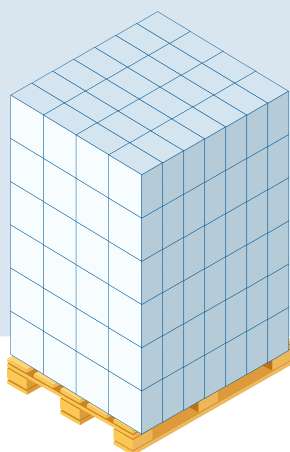


R-134a	950 grams	KNX-R134A-DOT-6PCS
R-404A	650 grams	KNX-R404A-DOT-6PCS
R-407C	650 grams	KNX-R407C-DOT-6PCS
R-410A	650 grams	KNX-R410A-DOT-6PCS
R-507	650 grams	KNX-R507-DOT-6PCS
R-32	650 grams	KNX-R32-DOT-6PCS

Pallet size
950 x 1200 mm - H. 110 mm



20' CONTAINER



Cylinders per Package

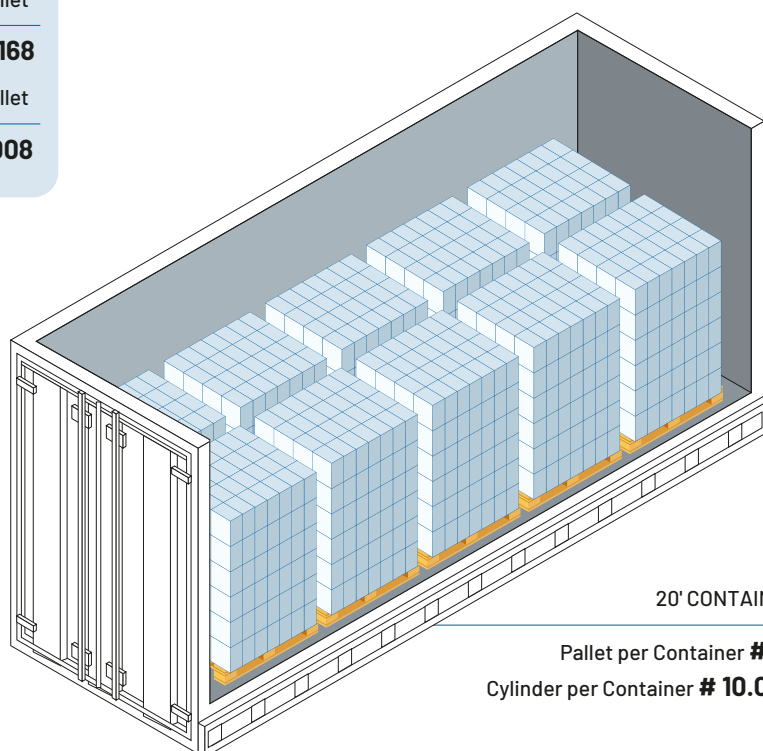
6

Package per Pallet

168

Cylinders per Pallet

1008



20' CONTAINER

Pallet per Container **# 10**
Cylinder per Container **# 10.080**

KrioNext® Loading Layout

www.generalgas.eu/krionext

KrioNext® in DOT-39 carbon steel cylinders - 1 Lt - valve 1/4" SAE RH

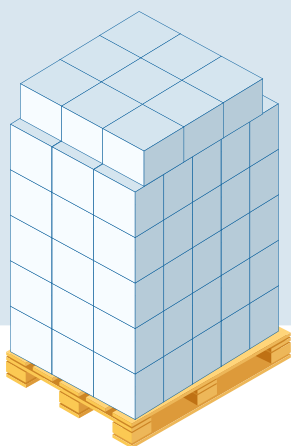


R-134a	950 grams	KNX-R134A-DOT-12PCS
R-404A	650 grams	KNX-R404A-DOT-12PCS
R-407C	650 grams	KNX-R407C-DOT-12PCS
R-410A	650 grams	KNX-R410A-DOT-12PCS
R-507	650 grams	KNX-R507-DOT-12PCS
R-32	650 grams	KNX-R32-DOT-12PCS

Pallet size
950 x 1200 mm - H. 110 mm



20' CONTAINER



Cylinders per Package

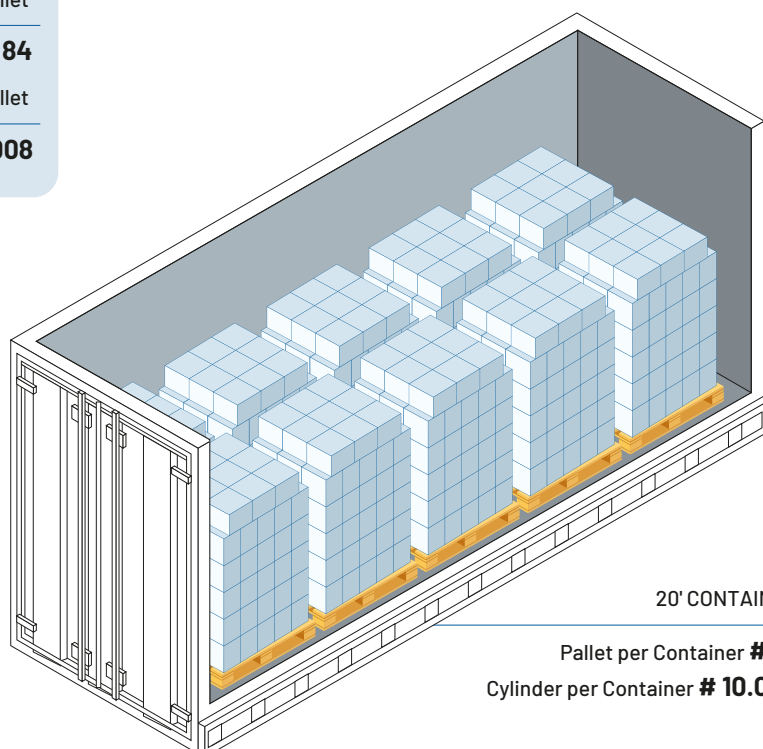
12

Package per Pallet

84

Cylinders per Pallet

1008



20' CONTAINER

Pallet per Container **# 10**
Cylinder per Container **# 10.080**



NOTE

GeneralGas

GENERAL GAS KRIONEXT CO., LTD.



www.generalgas.eu/krionext



Scan the QR Code to visit the
products page of our shop



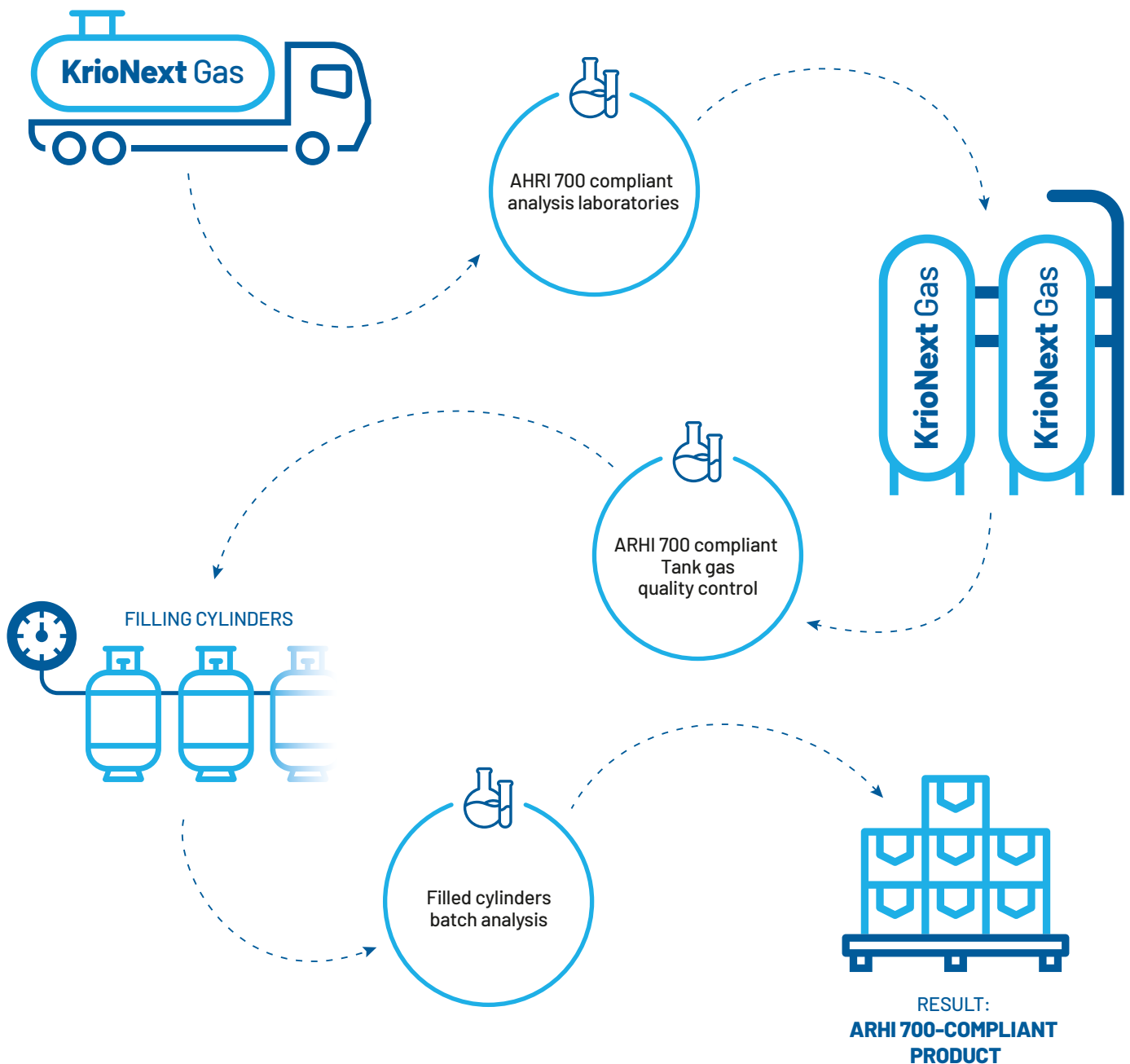
Scan the QR Code to download
the products catalogue





PRODUCT PROCESS

Quality assurance at all stages
of the production chain



ITALY
TRADEMARK




GeneralGas

GENERAL GAS KRIONEXT CO., LTD.



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