



河南丰之茂环保制冷科技有限公司
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About Fonsum

Fonsum Refrigerant is a technology-based enterprise specializing in the research and production of various refrigerants. Our factory is located in Minquan of Henan Province which is known as “China’s Cold Valley”. The company’s main products are R22, R134a, R600a, R404, R407, R410, R507, R406, R409, and other new environmentally friendly refrigerants.

The company covers an area of 20,000 square meters with two bottling areas, three bottling workshops, and a R&D center, 9 pure storage tanks of 100 square meters, 5 mixed storage tanks of 25 square meters, 4 storage tanks of 30 square meters, and 50 ISO tanks and 400 926L tonners, as well as automatic refrigerant bottling lines and semi-automatic bottling tables. The annual storage and distribution of refrigerant reaches 13,300 tons, and the annual output value is about 550 million yuan.

Having a big range cover of refrigerant in large producing scales, running in the flexible operating system with advanced inspecting methods, supported by fast delivery and vast distribution network, we have comprehensive competence to satisfy different customer’s demands. Our products are exported to UAE, Pakistan, Saudi Arabia, Brazil, Iran, Indonesia, Bangladesh, and more.

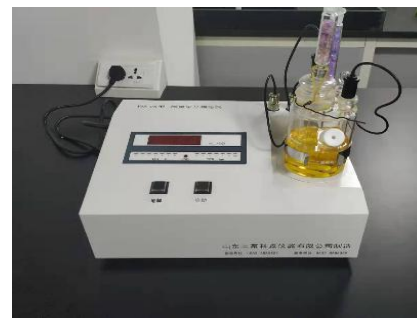
We are fully and completely committed to providing better products and services for our clients with consistent enthusiasm. We hope to collaborate with all customers domestic and overseas to build a brighter future.



Factory Overlook



Inspection Facility



Refrigerant Catalog

HCFC



HFC



HC



R-22 (Chlorodifluoromethane)

R-22 is odorless, non-toxic, non-flammable, transparent liquefied gas at room temperature, with good thermal properties and chemical stability, and non-corrosive to metals. It is mainly used in medium and low temperature commercial and industrial refrigeration, residential and commercial air conditioning.



Physical Properties

Purity(%)	≥99.9	Critical Pressure (Mpa)	4.97
Water(ppm)	≤10	Critical Temperature (°C)	96.0
Acidity(ppm)	≤1	Critical Density (g/cm ³)	0.526
Residue on evaporation(ppm)	≤100	Liquid Density (25°C,g/cm ³)	1.194
Molecular Weight	86.47	Ozone Depletion Potential (ODP)	0.05
Boiling Point (1atm, °C)	-40.75	Global Warming Potential (GWP)	1810

Packing Information

Type	Net Weight
Disposable Cylinder	30lb/13.6kg, 50lb/22.7kg
926L Tonner	1000kg
ISO-TANK	20 Ton

R-32 (Difluoromethane)

R32 belongs to green refrigerant and is an important substitute for R22. The cooling performance of R32 is similar to that of R410a. Under the same cooling capacity, the filling amount of R32 is less than that of R410a (about 30% less), but the exhaust temperature is higher than that of R410a.



Physical Properties

Purity(%)	≥99.9	Critical Pressure (Mpa)	5.8
Water(ppm)	≤10	Critical Temperature (°C)	78.2
Acidity(ppm)	≤1	Critical Density (g/cm ³)	0.958
Residue on evaporation(ppm)	≤100	Liquid Density (25°C,g/cm ³)	1.207
Molecular Weight	52	Ozone Depletion Potential (ODP)	0
Boiling Point (1atm, °C)	-62	Global Warming Potential (GWP)	550

Packing Information

Type	Net Weight	Type	Net Weight
Mapp Can	800g	926L Tonner	670kg
Disposable Cylinder	15lb/3kg, 30lb/9.5kg	ISO-TANK	12 Ton

R-134a (1,1,1,2-Tetrafluoroethane)

R134a is one of the main refrigerants currently recognized as an alternative to CFC-12. It is a colorless gas with a slight ether odor at normal temperature and pressure. It's usually used in household appliances, refrigeration (commercial and self-contained equipment), centrifugal chillers and automotive air conditioning, and it can also be used to configure other mixed refrigerants.



Purity(%)	≥99.9	Critical Pressure (Mpa)	4.067
Water(ppm)	≤10	Critical Temperature (°C)	101.1
Acidity(ppm)	≤1	Critical Density (g/cm ³)	0.512
Residue on evaporation(ppm)	≤50	Liquid Density (25°C,g/cm ³)	1.207
Molecular Weight	102.3	Ozone Depletion Potential (ODP)	0
Boiling Point (1atm, °C)	-26.1	Global Warming Potential (GWP)	1430

Packing Information

Type	Net Weight	Type	Net Weight
Aerosol Can	190/340/650/1000g	926L Tonner	950kg
Disposable Cylinder	30lb/13.6kg	ISO-TANK	20 Ton

R-152a (1,1-Difluoroethane)

R152a is a pure hydrofluorocarbon (HFC), which may be used in a wide range of applications as a replacement for R134a, as it features significantly lower GWP (124) and zero ODP. R152a is a lower-flammability refrigerant (Safety Class A2). It can be used in chiller systems and general air-conditioning systems as well as medium / high-temperature cooling systems.



Purity(%)	≥99.9	Critical Pressure (Mpa)	4.5
Water(ppm)	≤10	Critical Temperature (°C)	113.26
Acidity(ppm)	≤1	Critical Density (g/cm ³)	0.368
Residue on evaporation(ppm)	≤50	Liquid Density (25°C,g/cm ³)	1.207
Molecular Weight	66	Ozone Depletion Potential (ODP)	0
Boiling Point (1atm, °C)	-24	Global Warming Potential (GWP)	124

Packing Information

Type	Net Weight	Type	Net Weight
Disposable Cylinder	10 kg	926L Tonner	710kg
Refillable Cylinder	400L, 800L	ISO-TANK	20 Ton

R-404A (R-125/134a/143a)

R404A is an environment friendly refrigerant which has low-toxicity, non-flammable and good cooling performance. It is the most common industry-standard refrigerant (usually a cryogenic refrigerating system) to replace freon R22 and R502 on newly installed refrigerating equipment.



Purity(%)	≥99.5	Critical Pressure (Mpa)	3.722
Water(ppm)	≤10	Critical Temperature (°C)	96.15
Acidity(ppm)	≤1	Critical Density (g/cm ³)	0.4842
Residue on evaporation(ppm)	≤100	Liquid Density (25°C,g/cm ³)	1.048
Molecular Weight	97.6	Ozone Depletion Potential (ODP)	0
Boiling Point (1atm, °C)	-51.8	Global Warming Potential (GWP)	3800

Packing Information

Type	Net Weight	Type	Net Weight
Mapp Can	650g	926L Tonner	750kg
Disposable Cylinder	24lb/10.9kg	ISO-TANK	18 Ton

R-407C (R-32 / 125 / 134a)

R-407C has very similar properties to R22 in air conditioning equipment. R407C has the closest property match to R22 in an air conditioning retrofit project compared to other blends on the market. It can also be used in medium temp R22 refrigeration systems.



Purity(%)	≥99.5	Critical Pressure (Mpa)	4.619
Water(ppm)	≤10	Critical Temperature (°C)	86.74
Acidity(ppm)	≤1	Critical Density (g/cm ³)	0.527
Residue on evaporation(ppm)	≤100	Liquid Density (25°C,g/cm ³)	1.136
Molecular Weight	86.2	Ozone Depletion Potential (ODP)	0
Boiling Point (1atm, °C)	-43.6	Global Warming Potential (GWP)	1700

Packing Information

Type	Net Weight	Type	Net Weight
Mapp Can	650g	926L Tonner	750kg
Disposable Cylinder	25lb/11.3 kg	ISO-TANK	18 Ton

R-410A (R-32 / 125)

R-410A is stable, non-toxic, and excellent refrigeration (heating) performance. Besides, it contains no chlorine, and is not hazardous to the ozone layer. R407C is the most convenient alternative to R22 on newly installed refrigeration equipment (usually an air conditioning system).



Purity(%)	≥99.5	Critical Pressure (Mpa)	4.814
Water(ppm)	≤10	Critical Temperature (°C)	70.456
Acidity(ppm)	≤1	Critical Density (g/cm ³)	0.4339
Residue on evaporation(ppm)	≤100	Liquid Density (25°C,g/cm ³)	1.038
Molecular Weight	72.6	Ozone Depletion Potential (ODP)	0
Boiling Point (1atm, °C)	-61	Global Warming Potential (GWP)	2000

Packing Information

Type	Net Weight	Type	Net Weight
Mapp Can	800g	926L Tonner	750kg
Disposable Cylinder	25lb/11.3kg	ISO-TANK	18 Ton

R-507 (R-125 / 143a)

R-507 refrigerant is a long-term alternative to R502, with an ODP value of zero, and contains no ozone layer depleting substances. The refrigerating capacity and efficiency of R507 refrigerant are very close to that of R502, and it has excellent heat transfer performance and low toxicity. It is similar to R-404A in operation, pressure and capacity are slightly higher than R-404A.



Purity(%)	≥99.5	Critical Pressure (Mpa)	3.79
Water(ppm)	≤10	Critical Temperature (°C)	70.9
Acidity(ppm)	≤1	Critical Density (g/cm ³)	0.4908
Residue on evaporation(ppm)	≤100	Liquid Density (25°C,g/cm ³)	1.05
Molecular Weight	98.9	Ozone Depletion Potential (ODP)	0
Boiling Point (1atm, °C)	-46.7	Global Warming Potential (GWP)	3900

Packing Information

Type	Net Weight
Disposable Cylinder	25lb/11.3kg
926L Tonner	750kg
ISO-TANK	14 Ton

R-600A (Isobutane)

R600a refrigerant is a kind of natural refrigerant, no harm to the ozone layer, and low Global Warming Potential (GWP). It can replace R12 and R134a refrigerant and be used as an ultra-low temperature refrigerant in refrigerators, freezers and other small cryogenic refrigeration equipment, and also used as a foaming agent.



Purity(%)	≥99.9	Critical Pressure (Mpa)	3.65
Water(ppm)	≤10	Critical Temperature (°C)	135
Acidity(ppm)	≤1	Critical Density (g/cm ³)	0.221
Residue on evaporation(ppm)	≤100	Liquid Density (25°C,g/cm ³)	0.551
Molecular Weight	58.12	Ozone Depletion Potential (ODP)	0
Boiling Point (1atm, °C)	-11.8	Global Warming Potential (GWP)	11

Packing Information

Type	Net Weight	Type	Net Weight
Aerosol Can	120/420g	926L Tonner	400kg
Disposable Cylinder	14.3lb/6.5kg	ISO-TANK	10 Ton

R-290 (Propane)

R290 refrigerant is a natural refrigerant. High pure grade R290 is used as a temperature sensing medium. It is not harmful to the ozone layer. Premium grade and first grade R290 can be used as refrigerants and replace R22.



Purity(%)	≥99.5	Critical Pressure (Mpa)	4.24
Water(ppm)	≤10	Critical Temperature (°C)	96.67
Acidity(ppm)	≤1	Critical Density (g/cm ³)	0.23
Residue on evaporation(ppm)	≤100	Liquid Density (25°C,g/cm ³)	0.492
Molecular Weight	44.1	Ozone Depletion Potential (ODP)	0
Boiling Point (1atm, °C)	-42.2	Global Warming Potential (GWP)	11

Packing Information

Type	Net Weight	Type	Net Weight
Aerosol Can	200/400g	926L Tonner	380kg
Disposable Cylinder	11lb/5kg, 22lb/10kg	ISO-TANK	10 Ton

R-141b (Blowing Agent)

R-141b is a high-purity colorless and transparent liquid with no odor. It has a wide range of applications in the field of plastic foam. R141b can also be used as industrial cleaning agent and foaming agent to replace R11 and R113.



Purity(%)	≥99.9	Critical Pressure (Mpa)	4.25
Water(ppm)	≤10	Critical Temperature (°C)	204.15
Acidity(ppm)	≤1	Critical Density (g/cm ³)	0.43
Residue on evaporation(ppm)	≤100	Liquid Density (25°C,g/cm ³)	1.227
Molecular Weight	116.9	Ozone Depletion Potential (ODP)	0.086
Boiling Point (1atm, °C)	32.1	Global Warming Potential (GWP)	630

Packing Information

Type	Net Weight
Disposable Cylinder	30lb/13.6kg
Steel Drum	200L/250kg
ISO-TANK	16 Ton

Cyclopentane

Cyclopentane appears as a clear colorless liquid with a petroleum-like odor. Cyclopentane can be used as a foaming agent to replace CFCs, which is widely used in insulation materials for refrigerators and freezers and as a foaming agent for other rigid PU foams; as a solvent for solution polymerization such as polyisoprene rubber, and as a solvent for cellulose ether, chromatographic analysis standard substances.



Purity(%)	≥99.9	Critical Pressure (Mpa)	44.4
Water(ppm)	≤10	Critical Temperature (°C)	238.6
Acidity(ppm)	≤1	Critical Density (g/cm ³)	0.751
Residue on evaporation(ppm)	≤100	Liquid Density (25°C,g/cm ³)	2.4
Molecular Weight	70.1	Ozone Depletion Potential (ODP)	0
Boiling Point (1atm, °C)	50	Global Warming Potential (GWP)	5

Packing Information

Type	Net Weight
Steel Drum	148kg

MAPP GAS

MAPP welding gas (also known as MAP pro gas) is a special gas used for brazing. Hotter burn compared to the standard propane in the same circumstance, higher primary flame BTU, and shorter brazing time. If you are a person that cares about the temperature, our product is a perfect match for you.

All our gas containers are manufactured under USA DOT and European CE Certification.

MAP Pro GAS (Propylene)



Purity(%)	≥ 99.9
Water(ppm)	≤ 10
Acidity(ppm)	≤ 1
Residue on evaporation(ppm)	≤ 100
Molecular Weight	42.08
Boiling Point (1atm, °C)	-47.7
Critical Pressure (Mpa)	4.55
Critical Temperature (°C)	301.85
Critical Density (g/cm ³)	2.29
Liquid Density (25°C,g/cm ³)	5.457
Ozone Depletion Potential (ODP)	0
Global Warming Potential (GWP)	20

Propane



Purity(%)	≥ 99.5
Water(ppm)	≤ 10
Acidity(ppm)	≤ 1
Residue on evaporation(ppm)	≤ 100
Molecular Weight	44.1
Boiling Point (1atm, °C)	-42.2
Critical Pressure (Mpa)	4.24
Critical Temperature (°C)	96.67
Critical Density (g/cm ³)	0.23
Liquid Density (25°C,g/cm ³)	0.492
Ozone Depletion Potential (ODP)	0
Global Warming Potential (GWP)	11

Packing Information

14oz / 400g per cylinder, 12 cylinders/carton, 14400 cylinders/
20ft container