Fluorinated Refrigerants

R-23 - Regenerated

R-23 – Regenerated: High-Safety Refrigerant for Very Low-Temperature Applications (-70°C)

R-23 (trifluoromethane) is a fluorinated refrigerant (HFC) with no ozone layer destruction potential (ODP = 0), high security (A1) capable of working in conditions that require very low evaporation temperatures.

R-23 comes from a regeneration process that enhances the circular economy and minimizes the impact on the environment. Also, the tax on fluorinated gases is reduced by 50%.

IUPAC Name:	ASHRAE Name:
Trifluoromethane	R-23

Technical specifications:

0	14800	A1	POE
ODP	GWP	Safety classification	Compatible lubricants

Temperature Range: Very Low (between -40°C and -80°C)

Replacement:
R-13 and R-503

Type of replacement:
Retrofit

Applications:

- Very Low Temperature Storage
- Processes requiring Very Low Temperatures
- Freeze-Drying

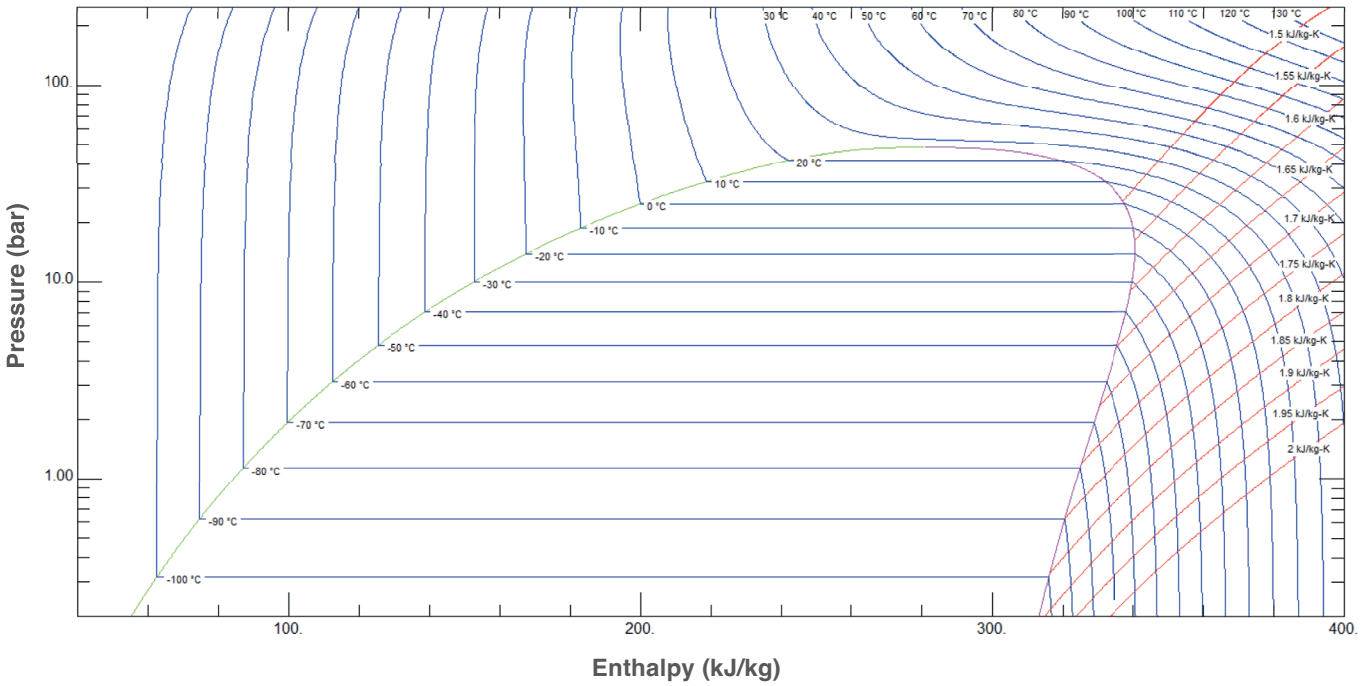
Packaging sizes for R-23:

- Cylinders
- Roll Drums

Thermodinamic properties chart:

Temperature (ºC)	Absolute pressure (bar)	Liquid density (kg/l)	Gas density (kg/l)	Liquid enthalpy (kJ/kg)	Gas enthalpy (kJ/kg)
-100	0,31568	1,5123	0,0015672	62,561	315,98
-95	0,44878	1,4941	0,0021767	68,645	318,27
-90	0,62394	1,4757	0,0029615	74,76	320,51
-85	0,85009	1,4569	0,0039554	80,911	322,69
-80	1,137	1,4379	0,0051955	87,104	324,81
-75	1,4955	1,4186	0,0067226	93,346	326,84
-70	1,937	1,3989	0,0085821	99,641	328,79
-65	2,4737	1,3787	0,010824	106	330,65
-60	3,1188	1,3581	0,013503	112,43	332,4
-55	3,8859	1,337	0,016682	118,93	334,02
-50	4,7892	1,3153	0,02043	125,53	335,52
-45	5,8439	1,2929	0,02483	132,22	336,86
-40	7,0653	1,2697	0,029972	139,02	338,04
-35	8,4697	1,2456	0,035969	145,95	339,04
-30	10,074	1,2205	0,04295	153,03	339,82
-25	11,895	1,1942	0,051079	160,26	340,36
-20	13,953	1,1666	0,060556	167,68	340,62
-15	16,265	1,1372	0,071639	175,32	340,55
-10	18,853	1,1059	0,084672	183,21	340,09
-5	21,739	1,0721	0,10012	191,42	339,16
0	24,947	1,0351	0,11867	200	337,64
5	28,503	0,99388	0,14134	209,08	335,36
10	32,438	0,94675	0,16987	218,84	332,01
15	36,791	0,89035	0,20758	229,64	327,06
20	41,61	0,81643	0,26279	242,36	319,17

Pressure diagram chart:



Normative:

GRIT (Gases Research Innovation & Technology) is committed to the continuous improvement of our inbuilt Quality Control, Environment and Major Accident Prevention Systems as well as close collaboration with our product and service providers. The scope of the system includes the packaging, commercialisation, storage and innovation of technical gases and the management of residual fluorinated gas and halogenated solvents.

All this work is reflected in our certificates ISO 9001 & ISO 14001. GRIT also meets AHRI 700 standard for new and recycled refrigerants.

More information:

If you want more information about our products, contact us.

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