



R-290

EPA APPROVED R290 REFRIGERANT FOR USE AS PER EPA REGULATIONS 40 CFR PART 82.17

A new wave of hydrocarbon refrigerants is beginning to replace outdated and harmful CFC (chlorofluorocarbon) and HFC (hydrofluorocarbon) based refrigerants.

Leading the way is R290, a refrigerant grade propane, that is not only safer for the environment but has also shown to significantly improve energy efficiency when compared to previous refrigerants.

While propane is combustible, studies have concluded that using R290 showed no change in reliability, safety or performance over traditional equipment. This is in part due to the comparatively small volume of R290 needed to act as a refrigerant in the systems tested. In fact some tests showed that less than half the amount was needed versus older synthetic refrigerants (HFC's).



RESIDENTIAL APPLICATIONS

- Refrigerators
- Freezers
- Dehumidifiers
- Window AC Units

COMMERCIAL APPLICATIONS

- Ice Machines
- Grocery Store Freezers
- Refrigerators
- Restaurant Equipment
- Wine Coolers
- Beer Keg Lines
- Soda Machines
- Drinking Fountains



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When comparing the same freezer and chiller units, those fitted for R290 outperformed the R-134a counterparts by nearly 30%.

This natural refrigerant has been found to be one of the best suitable and maintainable for long-term refrigeration needs. Having similar thermodynamic properties to man-made refrigerants, R290 stands above them as a non-toxic and non-ozone depleting alternative.

Additionally, R290 has no global warming potential; and due to lower system pressures, has less chance refrigerant leaks due to wear and tear.

As the push for safer and more effective refrigerants rises, R290 and other hydrocarbon refrigerants will continue to gain popularity.

More than one and a half billion hydrocarbon refrigerators and freezers are already being used in homes and business worldwide!





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APPLICATION & USE

- For use only in units calling for R290
- As per use with any Flammable substance, take adequate precautions during use

Always refer to the EPA's Significant New Alternative Policy list (SNAP List) for a comprehensive list of acceptable uses. <https://www.epa.gov/snap/snap-regulations>

MANUFACTURES USING R290

TRUE Refrigeration	Traulsen
Turbo Air	Imbera
IDW	Kelvinator Commercial
Royal Vendors	Liebherr
ATOSA	Norpole
Delfield	Machine Chef

ABOUT HYDROCARBON REFRIGERANTS

Though a growing number of hydrocarbon (HC) refrigerants are gaining popularity, R290 (propane) and R600a (isobutane) are the two most frequently found in HVACR applications today. R290 is predominantly found in commercial heat pump, air-conditioning, freezer, and refrigeration applications while R600a is generally found in both residential and commercial refrigerators and freezers. Not only touted for their environmental benefits, hydrocarbon refrigerants also boast significant cost savings for heating, cooling, and freezing applications.





TEMP	PRESSURE	TEMP	PRESSURE
	psig	°F	psig
-44	0	84	137.9
-40	0.03	88	146.5
-36	0.03	92	155.4
-32	0.03	96	164.7
-28	6.6	100	174.3
-24	8.6	104	184.4
-20	10.7	108	194.8
-16	13	112	205.6
-12	15.5	116	216.8
-8	18.1	120	228.4
-4	20.8	124	240.5
0	23.7	128	252.9
4	26.9	132	265.9
8	30.2	136	279.20
12	33.6	140	3087.3
16	37.3	144	322.1
20	41.2	148	337.4
24	45.3	152	353.1
28	49.7	156	369.4
36	59	160	386.2
40	64.1	164	403.6
44	69.4	168	421.5
48	74.9	172	440
52	80.8	176	459.1
56	86.8	180	478.8
60	93.2	188	499.2
64	99.9	192	520.3
68	106.9	196	542.1
72	114.1	200	564.7
76	121.7	204	588.4
80	129.6		