

REFRON R142b

(Chlorodifluoroethane / 1-Chloro-1,1-difluoroethane)

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

R-142B is key raw material for polymer like FKM, rubber product, R-142b is a "hydrochlorofluorocarbon" (HCFC) compound used as refrigerant fluid, it is a substitute for R-114 (CFC), which it can replace in some instances. It is also used in R-142b/R-22 mixture, replacing R-12 in some applications.

APPLICATIONS

FKM (Rubber)
VDF used in making coating and piping for corrosive services

TYPICAL PROPERTIES

Parameters	Unit	Value
Molar mass	g/mol	100.5
Melting point	°C	- 131.15
Boiling point (under 1.013 bar)	°C	- 9
Critical temperature	°C	131.1
Critical pressure	bar	41.23
Critical density	kg/m ³	435
Latent heat of vaporisation at boiling point	kJ/kg	222.7
Thermal conductivity at 30°C		
Liquid		0.07954
Vapour under 1.013 bar	W/(m.K)	0.01161
Surface tension at 25°C	10 ⁻³ N/m	11.41
Viscosity at 25°C		
Liquid		0.238
Vapour under 1.013 bar	10 ⁻³ Pa-s	0.009912
Specific heat at 25°C		
Liquid	kJ/(kg.K)	1.292
Vapour under 1.013 bar	kJ/(kg.K)	0.8529
Cp/Cv ratio at 25°C under 1.013 bar		1.126
Flammability in air Explosive limits	Lower limit Higher limit	9% volume 14.8% volume
Flashing point		none
NF-EN 378 Classification		L2
Potential effect on ozone	(R-11 = 1)	0.065

NORMAL HANDLING

Use only in well ventilated areas. Ground all equipment and cylinders before use. Use explosion-proof electrical equipment rated Class 1, group D in Division 1 locations. In Division 2 locations, all spark-producing electrical equipment must be explosion-proof and rated Class 1, Group D. Valve protection caps must remain in place unless container is secured with valve outlet pipe to use point. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Do not heat cylinder by any means to increase the discharge rate of product from the cylinder. Use a check valve in the discharge line to prevent hazardous back flow into the cylinder. Close valve after each use and when empty. Protect cylinders from physical damage.

STORAGE RECOMMENDATIONS

Store in a cool, dry, well ventilated area away from heavy traffic and emergency exits. Do not allow cylinder storage area temperatures to exceed 125 deg. F (52C). Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Full and empty cylinders should be segregated. Use a first in – first out inventory system to prevent full cylinders from being stored for excessive periods of time.

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