



Westfalen

Product sheet Protadur[®] E 941 (Nitrogen)

Product name	Protadur [®] E 941 (Nitrogen)
Physical state	gaseous, compressed
Chemical sign	N ₂
Chemical designation	N2
Purity	99,999 %
Standard	is not subject to any standard
Properties	see safety data sheet
Shoulder color	jet black (RAL 9005)

Minor components	Maximum values
Moisture	4,0 vol. ppm
Hydrocarbons	1,0 vol. ppm
Carbon monoxide	5,0 vol. ppm
Nitrogen monoxide + nitrogen dioxide	5,0 vol. ppm
Oxygen	3,0 vol. ppm

Name	Material number	Bottle type	Bottle container volume	Vapour/filling pressure	Content	Valve	Properties
Protadur E 941 T20 RCyl	S02010120	steel	20,0 l	200,0 bar	3,8 m ³	DIN 477 Nr. 10	
Protadur E 941 T50 RCyl	S02010150	steel	50,0 l	200,0 bar	9,6 m ³	DIN 477 Nr. 10	
Protadur E 941 RBundle	S02010312	steel	600,0 l	200,0 bar	115,2 m ³	DIN 477 Nr. 10	
Protadur E 941 T10 deposit	S02011210	steel	10,0 l	200,0 bar	1,9 m ³	DIN 477 Nr. 10	Cage

Unless otherwise stated, these refer to filling pressure at 288,15K (15°C) and to content at 288,15K (15°C) and 1,013 bar.

Manufacture complies with the requirements of EC Regulation 178/2002/EC and corresponds to purity requirements for food additives according to regulation (EU) 231/2012.



Typical applications

- as a packaging gas for oxygen-sensitive foodstuffs
- as a propellant for expelling liquid foodstuffs from their containers
- for inerting
- for cold pressing (e.g. in oil mills)
- for wine conservation
- for stabilising of drinks
- for packaging under protective atmosphere

Physical data

operating figures	Molar mass	28,01 g mol ⁻¹
Liquid State	Heat of Evaporation	198,70 kJ kg ⁻¹
	Liquid Density	808,6 kg m ⁻³
Gas State	Thermal Conductivity (at 288.15 K and 1.013 bar)	0,0250 kg m ⁻³
	Density Ratio to Air (at 288.15 K and 1.013 bar)	0,97
	Specific heat (at 298.15 K and 1.013 bar)	1,04 kg m ⁻³
	Density (at 273.15 K and 1.013 bar)	1,25 kg m ⁻³
Critical Point	Temperature	126,2 (-147,0) K (°C)
	density	314 kg m ⁻³
	Pressure	34,00 bar
Triple Point	Temperature	63,2 (-210,0) K (°C)
	Vapour Pressure	0,1253 bar
	Heat of Fusion	25,8 kJ kg ⁻¹

All mentioned data, values and notes correspond to actual state of knowledge on the date of printing. They make no claim to be correct or complete and therefore do not release the user from his obligation to check them.

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