→ Datasheet

Arsine. AsH_3

Product information

AsH_3 is a n-type implant material in semiconductors. AsH_3/H_2 mix is a n-type doping in silicon semiconductors, flat panel display and solar sectors. It is mainly used in ion implantation for threshold, extension, and contact. High-volume application is in semiconductor and LED productions.

Characteristics

Flammable. Toxic substance is formed with combustion. Colorless, liquefied gas with garlic-like odor. Gas density is heavier than air.

Physical data

Molecular weight	[g/mol]	77.945		
Boiling point	at 1.013 bar [°C]	-62.48	at 14.5 psi [°F]	-80.44
Density	at 1.013 bar, 15 °C [kg/m³]	3.334	at 1 atm., 70 °F [lb/ft³]	0.204
Vapor pressure	at 0 °C [bar]	9.02	at 32 °F [psi]	130.9
	at 20 °C [bar]	14.74	at 70 °F [psi]	219.32
Flammability range in air (% volume)		3.9 - 77.8		

Product specification

Purity grade	Typical purity	Typical impurities [ppm]						
		N_2	CO_2	CO	CH_4	PH_3	H_2O	$Ar+O_2$
5.3N	≥99.9993 %	≤1	≤0.5	≤0.5	≤0.5	≤2	≤1	≤1
4.7N	≥99.997%	≤5	≤1	≤1	≤5	≤5	≤4	≤5

Contact our team for higher grade or different specification products.

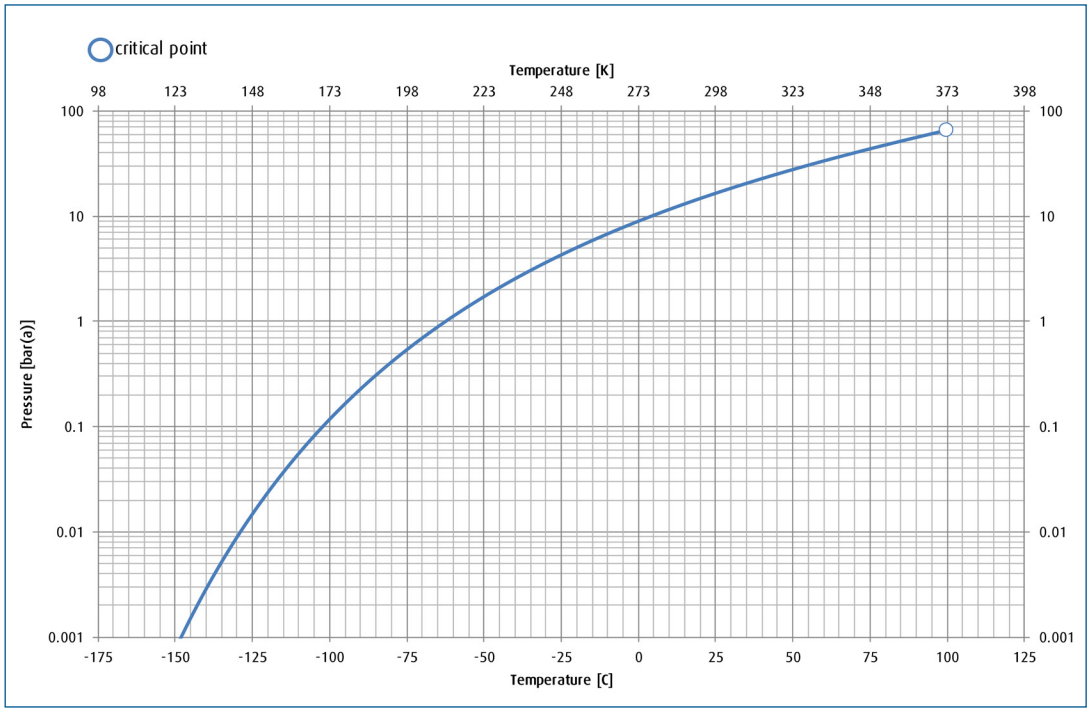
Shipping information

UN number	CAS number	EC number	DOT label	Hazard labels required
2188	7784-42-1	232-066-3	Poison gas	ADR Class 2, 2 TF DOT Class 2.3

Packaging information

	Package options	Cylinder designation	Cylinder internal volume	Cylinder material	Cylinder diameter	Cylinder height to valve outlet	Cylinder tare weight	Fill contents	Pressure (psig) @ 70° F	Valve outlet	Valve material
US	Cylinder	302	46L	Aluminum	9.8 in	53.1 in	98 lb	45 lb	205	CGA 632/350	SS
	Cylinder	152	29.5L	Aluminum	8 in	49.5 in	49.5 lb	20 lb	205	CGA 632/350	SS
	Cylinder	32	6L	Aluminum	6.9 in	15.6 in	15 lb	4 lb	205	CGA 632/350	SS
EU	Cylinder	10L	10L	Aluminum	140 mm	865 mm	12 kg	5 kg	205	DIN 1	SS
	Cylinder	2L	2L	Aluminum	115 mm	275 mm	1.5 kg	1 kg	205	DIN 1	SS

Vapor pressure curve



Additional information

The information, recommendations, and data contained in this publication are intended to give basic guidance for safe handling and use of gases. For more information, please refer to Safety Data Sheets. You can locate these through the Linde Safety Data Sheet Search. It is essential for the safe use of gases that personnel are properly trained and are fully aware of the possible hazards. Further information and advice on any matter relating to the safe handling or use of these products may be obtained from the nearest Linde office.

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