

AsH₃

Properties: It is a colorless gas with a disagreeable garlic odor. Flammable. Heavier than air. Flame easily flashes back to the source of leak. Extremely toxic by inhalation. AsH₃ is quite stable at room temperature and decomposes into hydrogen and arsenic very slowly, but when the temperature is above 230 °C, it decomposes quickly.

Uses: N-type doping, diffusion, ion implantation of epitaxial silicon, and preparation of compound semiconductors such as gallium arsenide (GaAs).

· Identifier

Chemical Formula	AsH ₃
CAS No.	7784-42-1
EINECS No.	232-066-3

· Physical and chemical properties

Molecular weight	77.945 g/mol	Flash point	-110 °C	Reactivity	Stable at room temperature
Appearance	Colorless gas	Melting point	-116 °C	Solubility	Soluble in water, slightly soluble in ethanol. Alkaline liquid
Density	4.93 g/cm ³	Boiling point	-62 °C	Storage	Shady and cool, well-ventilated

· Package specification

Cylinder size	47.5 L Aluminum Cylinder	Valve connection	DISS632
Fill weight(lbs)	33	Cylinder dimensions(in)	9.3*54.1
Fill weight(kgs)	15	Cylinder dimensions(cm)	25

· Impurities

Content	Unit	Specification
CO ₂	ppbv	≤100
CO	ppbv	≤100
N ₂	ppbv	≤250
O ₂ +Ar	ppbv	≤100
H ₂ O	ppbv	≤350
C1-C2	ppbv	≤500
GeH ₄	ppbv	≤50
H ₂ S	ppbv	≤50
SiH ₄	ppbv	≤100
PH ₃	ppbv	≤100

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