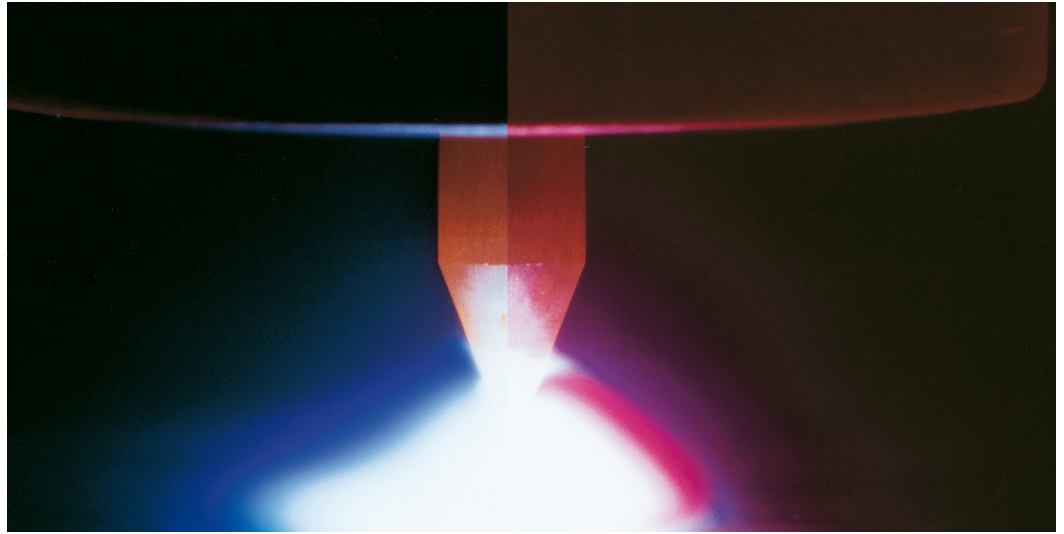




Liquid Argon, Industrial Quality



Application The industrial quality of liquid argon, is the most utilized argon quality. As argon is a noble gas it is very stable, which makes it ideal in connection with heat treatment of metal, where the temperature is very high. It is used for traditional welding, laser- and plasma-welding as well as plasma-cutting. Argon is used for arc welding, because it ionizes easily. Therefore Argon is the main component in shielding gasses for welding. Argon is also used as a part of the insulation in sealed double glazed windows.

Physical properties Liquid argon is a colourless liquid. In gaseous form, it is colourless, tasteless as well as odourless. Argon is neither flammable nor does it support combustion. Atmospheric air contains 0,934 vol. % argon and argon gas is approx. 1,4 times as heavy as air and is easily soluble in water. Argon forms part of the group of rare gasses together with helium, neon, krypton, xenon, which are all characterized by their extreme small reactivity with other substances. Argon does not form part of any known chemical combination. Argon is the most common of the rare gases. Atmospheric air is the only known source for production of pure argon. Liquid argon is produced from air via distillation in an air separation system.

Specification Material No. 101982. Product name: Liquid Argon, Industrial Quality

Purity	Impurities
Argon (Ar) ≥ 99,99 vol. %	Oxygen (O ₂) ≤ 10 ppm
	Water (H ₂ O) ≤ 10 ppm
	Nitrogen (N ₂) ≤ 40 ppm

The specifications are exclusively valid for deliveries in pressure tanks.

Physical data	Gas type	Boiling point	Latent heat of vaporization	Specific heat capacity (15 °C)
	Argon, Ar, LAR	-186 °C	164 kJ/kg	0,52 kJ/kg K

Conversion factors	Critical values
1 nm ³ = 1,168 litre = 1,637 kg	Critical temperature -122,3 °C
1 litre = 0,856 nm ³ = 1,401 kg	Critical pressure 49,0 bar
1 kg = 0,611 nm ³ = 0,714 litre	Critical density 0,536 kg/l
<i>1 nm³ = 1 m³ at 15 °C and 0,98 KPa.</i>	<i>The litre-designation is used for gas in its liquid phase.</i>

Linde Gas
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