Krypton 5.0: Illuminating Excellence

Trust an experienced leader for your krypton gas needs, including safe operations, dependable supply, high-quality mixtures and more

Krypton Industry Benefits

- **Aerospace:** For aircrafts, produces a white light that is more natural and comfortable for the human eye than other types of lighting.
- **Electronics:** Can improve the performance and efficiency of electronic devices, including light bulbs, lasers, and flat-panel displays. Also helps prevent oxidation and contamination of semiconductor wafers.
- **Glass and Windows:** Can improve the optical properties of optical glass and high-performance windows, making them more resistant to damage. Can also improve insulation properties, resulting in reduced energy costs.
- **Propulsion:** More efficient and environmentally friendly alternative to traditional propellants.
- **Sputtering:** In sputtering – a process used to deposit thin films on a substrate – gaseous krypton is ionized and accelerated towards the substrate, where it knocks atoms off a target material. These atoms then deposit on the substrate, forming a thin film. Because krypton is inert and does not react with the target material or the substrate, it helps to maintain the quality of the deposited film.

Why Messer?

- **Commitment to Safety:** Safety is at the core of who we are at Messer and your safety matters to us. We aim to make sure all aspects of our krypton gas supply and our services consider your safety. With strict adherence to industry standards and rigorous quality control measures, our goal is to achieve the highest safety standards throughout the handling, transportation, and storage of krypton gas. We work with you to help ensure peace of mind that your supply needs will be handled safely, protecting your personnel and operations.
- **Engineering Experience:** With our team's collective experience in specialty gases and product mixtures, we

bring a wealth of knowledge to address your needs. Our professionals possess extensive understanding of krypton gas applications, enabling us to provide valuable insights, customized packages and technical support for you.

- **Specialty Product Quality:** Our production techniques and quality assurance protocols produce krypton gas that stands out in quality and purity and meets high industry standards, enhancing performance and helping minimize any potential downtime.
- **Supply Dependability:** We recognize the importance of a dependable and consistent supply for your operations. Our vertically integrated, domestic supply chain can provide a dependable supply of krypton gas. Our commitment to maintaining sufficient inventory levels allows you to focus on your business without worrying about supply disruptions.

In addition to these benefits, Messer offers a range of specifications, cylinder sizes and packages to meet your needs.

Specifications

Gas Krypton (Kr)

Component	Chemical Formula	UOM	5	4.5
Impurities (ppmv gas phase)				
Carbon Dioxide	CO_2	PPM	0.5	5
Carbon Monoxide	CO	PPM	1	5
Carbon Tetrafluoride	CF_4	PPM	0.1	5
Hydrogen	H2	PPM	0.5	5
Methane	$THC (CH_4)$	PPM	0.5	5
Nitrogen	N_2	PPM	1	5
Oxygen	O_2	PPM	0.5	1
Water	H_2O	PPM	0.5	1

Package Options

Gas Krypton (Kr)

Cylinder Size	Cylinder Internal Volume	Fill Contents (Metric)	Pressure (psig) @ 70°F	Valve Outlet
30	8 w.l.	1000	1500	CGA 580
80	16 w.l.	2000	1500	CGA 580
200	44 w.l.	5000	1350	CGA 580
300	49 w.l.	10000	2200	CGA 580

*Different packages and volumes available upon request

Safety Data Sheets

For information on safe handling, recommended use and transport of compressed krypton gas, please click here.

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