



Germanium Tetrachloride (GeCl_4)

Optical fiber is made from glass or plastic, which achieves long-distance transmission of data as a light signal. Optical fiber takes its advantage like high bandwidth, low weight, less signal degradation, no electromagnetic interference, higher capacity, and higher speed. It is widely used in the field of communication, healthcare, sensor and lighting. As an essential material in the optical fiber production process, Germanium Tetrachloride (GeCl_4) is used as a dopant in the core of an optical fiber preform. This to make a core with an higher refractive index, total reflection of the light signal and longer transmission distance with less loss of light signal .

Vital Materials, a rare metals materials technology group, focuses in the areas of rare metals, advanced materials and recycling. Vital offers a high purity GeCl_4 (6N-9N) with an annual capacity of 80 tons. We have supplied high quality GeCl_4 to main optical fiber and cable manufacturers in China, Japan, United States and Europe for several years. To guarantee our products achieve a consistent ultra-pure quality, our laboratory developed a reliable testing and evaluation methods through GD-MS, ICP-MS and FTIR. The GeCl_4 is delivered in stainless steel container with Swagelok valve manifold arrangement, manual or pneumatic. The containers are compliant with DOT, UN and IMD regulations. Container sizes from 50kg to 400kg are available on request.

Product Name	Germanium Tetrachloride (GeCl_4)	CAS Number	10038-98-9
Grade	99.999999%	Formula Weight	214.452

Element	Cr	Fe	Co	Cu	Mn	Ni	V	Al	Zn	Pb
Spec (ppb)	≤0.5	≤1.0	≤0.5	≤0.25	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5

Hydrogen Bonds	Peak (cm^{-1})	Spec (ppm)	Typical (ppm)	Transmittance
O - H	3608	≤3	<1	93% min
C - H	2970 & 2925	≤3	<0.5	98% min
H - Cl	2860 & 2830	≤3	<1	99% min

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