



## <sup>72</sup>Ge in the form of Germanium Tetrafluoride Gas GeF<sub>4</sub>

### Description

Enriched Germanium Tetrafluoride gas is used as preamorphic implant to prevent silicon wafer from implant dopant channeling. Furthermore, it is used to strain silicon wafer which optimizes the performance and speed of the device.

### Isotopic Abundance:

	Item	<sup>70</sup> Ge	<sup>72</sup> Ge	<sup>73</sup> Ge	<sup>74</sup> Ge	<sup>76</sup> Ge
Abundance (%)	GC-MS (±0.5)	8.78	65.02	12.81	13.37	0.02

### RGA Analysis

Component Analysis	Specification	Detect Limit	Units	Analysis Method
GeF <sub>4</sub> Purity	≥99.99	/	% by Volume	GC-MS
<sup>72</sup> Ge	≥55%	0.0001	AT%	GC-MS
O <sub>2</sub>	≤25	0.1	ppmv	GC-MS
N <sub>2</sub>	≤25	0.1	ppmv	GC-MS
CO <sub>2</sub>	≤25	0.1	ppmv	GC-MS
SO <sub>2</sub>	≤25	0.1	ppmv	GC-MS
HF	≤25	0.1	ppmv	GC-MS
Ar	≤25	0.1	ppmv	GC-MS