

PRODUCT DATA SHEET

Germanium Dioxide

Introduction

Germanium dioxide is a white powder that is manufactured in both crystalline and amorphous forms. Germanium dioxide's refractive index (1.7) and its optical dispersion properties are useful for making wide-angle lenses and optical microscope objective lenses. It is transparent to infrared light.

Germanium dioxide is also used as a catalyst in the production of polyethylene terephthalate (PET) resin and in the production of other germanium compounds, as well as some phosphors and semiconductor materials.

Impurities	Typical	Maximum
Chloride	<0.05%	0.05%
Moisture (LOD)	<1.0%	2.0%
Volatile (LOI)	<3.0%	3.0%
	Typical ppm	Maximum ppm
Copper (Cu)	<1.0	3.0
Cobalt (Co)	<1.0	3.0
Aluminum (Al)	<1.0	3.0
Iron (Fe)	<2.0	3.0
Nickel (Ni)	<1.0	3.0
Zinc (Zn)	<1.0	3.0
Total Combined Metals	<3.0	10.0

Synonyms	Germanium (IV) Oxide, GeO ₂
CAS Number	1310-53-8
EC Number	215-180-8
RTECS Number	LY5240000
Purity	99.999%
Appearance/Form	White powder
Crystal Structure	Hexagonal
Formula Weight	104.61
Theoretical Germanium Content	69.434%
Apparent Density	1.3-1.7g/cc
Melting Point	1115°C
Solubility	Soluble in alkalis Slightly soluble in acids Slightly soluble in water

Packaging

Germanium dioxide is packaged in a polyethylene bag and packed in a polyethylene container. Contact us for other packaging options.

Storage and Shelf Life

Germanium dioxide should be kept in a tightly sealed container and stored at room temperature. It has a minimum shelf life of 12 months after delivery.

This product data sheet is provided for general information only. It is not intended, and shall not be construed, to warrant or guarantee the performance of the products described which are sold subject exclusively to written warranties and limitations thereon included in product packaging and invoices. All Indium Corporation's products and solutions are designed to be commercially available unless specifically stated otherwise.

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