

# Ga<sub>2</sub>O<sub>3</sub>



<sup>8130-12-000847</sup>





# GALLIUM OXIDE

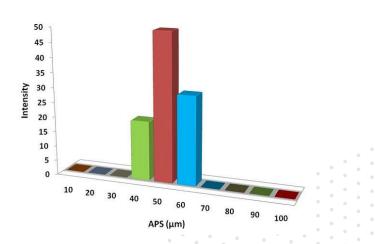
The monoclinic gallium oxide (β-Ga2O3) is chemically and thermally stable compound. It represents conductive and photoluminescence properties. Crystalline gallium oxide nanowires exhibit a blue light emission. Ga2O3 resides in a family of conducting transparent semiconducting oxides (TSO). It is also used as ceramic material due to its high melting point.

Gallium oxide (Ga2O3), is displaying basic and acidic sites on its surface so that this compound is utilized in different applications. It has also been utilized as a catalyst for benzene decomposition, reduction of nitrogen oxides (NOX) using alkanes, catalytic isomerization, and dehydrogenation of fatty acid esters.

Quickfacts

Product	Gallium Oxide
Stock No	NS6130-12-000847
CAS	12024-21-4
Color	White Crystalline
Form	Powder
Symbol	$Ga_2O_3$
Group	Gallium 13/Oxygen 16

Electronic Configuration: Gallium [Ar] 3d10 4s2 4p1,Oxygen [He] 2s2 2p4



### ADDITIONAL POWDER CHARACTERISTICS

Stock No.	Purity	Vapor Pressure				
NS6130-12-000847	99.9%	1 mmHg ( 48 °C)				

N	/lole	cular	Forr	nula	3	Mol	ecular W	Veight		Density	y	Melt	ing Poi	nt
		Ga₂C	)3			1	87.44 g/	mol	•	6.44 g/ci	m³	1	900 °C	
•	•	•			•	•								
•		•	•											

## CHEMICAL COMPOSITION

Product	Weight Percent (nominal)					
	Ga <sub>2</sub> O <sub>3</sub>	Other Metal				
Gallium Oxide	99.9%	1000ppm				

### **APPLICATIONS**

- > Used as an insulating barrier in tight junctions.
- > UV photodetector
- > Used as a catalyst
- > Gas sensors





ISO 9001:2015 CERTIFIED COMPANY INTELLIGENT MATERIALS PVT LTD Derabassi Punjab (140507) INDIA NANOSHEL UK LIMITED Chapel House, Chapel St Cheshire, CW12 4AB United Kingdom

+44 1782 454 144, +44 74 105 48802

NANOSHEL LLC 3422 Old Capitol Suit 1305 Wilmington DE - 19808 United States