## Gallium (III) Oxide (Ga$_2$O$_3$)

### Synonyms
- Gallium Oxide, Gallium Sesquioxide

### CAS Number
- 12024-21-4

### EC Number
- 234-691-7

### RTECS
- LW9650000

### Appearance/Form
- White powder

### Crystal Structure
- Mostly β-phase, confirmed by XRD

### Formula Weight
- 187.44 g/mol

### Theoretical Gallium Content
- 74.39%

### Density
- 6.44 g/cm$^3$; approx. 0.7 g/cm$^3$ apparent

### Melting Point
- 1,900°C

### Vapor Pressure
- N/A

### Solubility
- Soluble in strong alkalis and hot acids, insoluble in water

Purity grade is 4N. Please contact askus@indium.com for sample COAs or discuss impurity specifications.

### Packaging
- PE Bottle: 100g, 500g, 1kg, 2kg
- Plastic Pail: 5kg, 10kg, 20kg
- Plastic Drum: 25kg, 50kg and up

### Applications
- Phosphors
- Cathodes for solid oxide fuel cells
- Piezo-electric crystals
- GGG crystals and IGZO targets for latest technology displays

### Storage and Shelf Life
Gallium (III) Oxide should be stored at room temperature and the container kept tightly sealed. Shelf life is 12 months.

### Typical Particle Size and Surface Area Analysis

<table>
<thead>
<tr>
<th>Type</th>
<th>$d_{50}$ (micron)</th>
<th>$d_{90}$ (micron)</th>
<th>BET (m$^2$/g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.8–2.7</td>
<td>2.9–4.4</td>
<td>8–13</td>
</tr>
</tbody>
</table>

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From One Engineer To Another

Contact our engineers: askus@indium.com
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