

Technical Data Sheet

Lutetium Oxide Powder

Product ID:	710800PD001 / 710800PD002		
Formular:	Lu ₂ O ₃	Molecular weight:	397.93 g/mol
CAS No.:	12032-20-1	EINECS No.:	234-764-3
Color:	White to off-white		
Description:	Our lutetium oxide powder features a purity of 99.9%–99.999% REO, offering high density, excellent chemical stability, and outstanding optical and electrical properties.		
Application:	High-end optical materials, scintillation crystals, advanced electronic devices, and laser and phosphor applications.		

**Product
Image:**



1. Sizes

Product ID	Formular	Size
710800PD001	Lu ₂ O ₃ (99.9% REO)	/
710800PD002	Lu ₂ O ₃ (99.99% REO)	/
710800PD003	Lu ₂ O ₃ (99.999% REO)	/

2. Chemical compositions

Chemical Compositions (ppm)				
Main Content		TREO ≥99%, Lu ₂ O ₃ /TREO ≥99.9%		
RE Impurities (ppm)				
Sm ₂ O ₃	Gd ₂ O ₃	Dy ₂ O ₃	Tm ₂ O ₃	Yb ₂ O ₃
≤ 50	≤ 50	≤ 100	≤ 50	≤ 100
Non-RE Impurities (ppm)				
CaO	Fe ₂ O ₃	SiO ₂		
≤ 30	≤ 10	≤ 30		

Main Content		TREO ≥99%, Lu ₂ O ₃ /TREO ≥99.99%		
RE Impurities (ppm)				
Sm ₂ O ₃	Gd ₂ O ₃	Dy ₂ O ₃	Tm ₂ O ₃	Yb ₂ O ₃
≤ 5	≤ 5	≤ 10	≤ 5	≤ 25
Non-RE Impurities (ppm)				
CaO	Fe ₂ O ₃	SiO ₂		
≤ 20	≤ 5	≤ 20		

Main Content		TREO ≥99%, Lu ₂ O ₃ /TREO ≥99.999%		
RE Impurities (ppm)				
Sm ₂ O ₃	Gd ₂ O ₃	Dy ₂ O ₃	Tm ₂ O ₃	Yb ₂ O ₃
≤ 1	≤ 1	≤ 1	≤ 1	≤ 1
Non-RE Impurities (ppm)				
CaO	Fe ₂ O ₃	SiO ₂		
≤ 15	≤ 2	≤ 20		

Note: The purity values shown are calculated by subtracting the sum of selected measured elemental impurities from 100%. These values do not represent the result of a full elemental analysis.

3. Packaging

Bottled/Bag.

Double vacuum packaging.

Customizable packaging is available upon request.

4. Period of Validity

It is recommended to use this product within 12 months (stored under proper conditions). If it is overdue, the product quality status should be re-evaluated.

5. Handling and Storage

When using, wear protective equipment (e.g., mask, goggles, and gloves) and operate in a well-ventilated area to avoid inhalation or contact with dust.

Store in a tightly sealed container in a cool, dry place away from moisture and corrosive substances.

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