RARE EARTH METAL & SALTS

CDH at a glance...

- Rich experience of more than 35 years
- Highly qualified and experienced team
- Professional management
- ISO 9001:2008
- ISO 14001:2004
- OHSAS 18001:2007
- WHO GMP CERTIFIED

Registered Members :

NSIC ISO 9001 : 2008 NATIONAL SMALL INDUSTRIES CORPORATION LIMITED | CHEMEXCIL | ASSOCHAM | FISME | FIEO | D&B Decide with Confidence

your partner in research since 1981

RARE EARTH METAL & SALTS

CDH a pioneer producer of Laboratory Fine Chemical in India Since 1981. CDH always keep enhancing product range and with the growing demand and repeated requests by our customers we are pleased to introduce a series of Rare Earth metals and their salts These products are available in various purities from 99% to 99.999% of individual and co-precipitated Rare Earth chemicals, including Oxides, Acetates, Chloride, Carbonates, Hydroxides, Fluorides, Nitrates, Oxalates, totally covered 90% of Rare Earth products, applied widely in manufacturing phosphors, advanced ceramics, pigments, glass, glazes, laser crystals, Rare Earth doped fibers.

Classification of Products by industry

Catalyst

Rare Earth catalyst can raise gasoline production by 5% and increase the capacity of the cracking equipment by 20-30%. Rare earth can also be employed in paints drier and thermal stabilizer for plastics and so on.

Related mostly Rare Earth elements: **Lanthanum, Cerium**

Ceremics

Ceramic powders are necessary ingredients in most engineering ceramics, electronic ceramics and ceramic coatings. With telecommunications being one of the largest ceramic industries, dielectric resonators, ceramic filters and multi-layer capacitors are continually being developed to increase performance. Y2O3 stabilized ZrO2, Nd2O3, La2O3 and Y2O3 are used to make different kinds of advanced ceramics.

Related mostly Rare Earth elements: **Scandium, Yttrium, Lanthanum, Cerium,Praseodymium, Neodymium, Samarium,Gadolinium, Ytterbium**

Electonics

Recent years, technological innovations, especially increasing demand on smart electronics and devices, like iPhone and iPad, resulted in manifold applications using Rare Earths which lead to a steep increase in their demand.

Related mostly Rare Earth elements: **Yttrium, Lanthanum, Neodymium,Samarium, Terbium, Dysprosium**

Energy

In energy application, Rare Earth are advantageous because of their relatively low toxicity. Rechargeable lanthanum-nickel-hydride (La-Ni-H) batteries are replacing Ni-Cd batteries batteries in automobiles.

Related mostly Rare Earth elements: **Lanthanum, Cerium, Neodymium,Terbium, Dysprosium**

Glass

Cerium compounds widely used in glass additives and glass-polishing compounds, while Lanthanum doped or Erbium optical glass features high refraction and low dispersion, can efficiently simplify optical system, expand visual angle and minimize lens.

Related mostly Rare Earth elements: **Rare Earths, Yttrium, Lanthanum, Cerium,Europium, Holmium, Erbium, Lutetium**

Magnetism

Neodymium-iron-boron (NdFeB) magnets are the most powerful permanent magnets available today, has a combination of very high remanence and coercivity, and comes with a wide range of grades, sizes and shapes. Recently years,DysprosiumandTerbiumaredopedtoachievebetterperformance.

Related mostly Rare Earth elements: **Praseodymium, Neodymium, Gadolinium,Terbium, Dysprosium**

Medicine

Many of the frequently used contrast agents for MRI(Magnetic Resonance Imaging) are based on the Gadolinium, which is paramagnetic. As advances in areas such as nanotechnology continue to be made, new areas of application for Rare Earths in medicine are sure to open up with their unique properties to be applied to the diagnosis and treatment of medical conditions.

Related mostly Rare Earth elements: **Yttrium, Lanthanum, Gadolinium**

Metallurgy

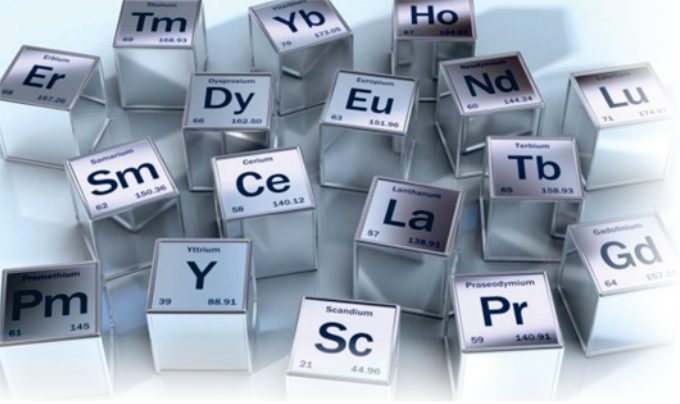
The Rare Earth ferrosilicon is widely used in metallurgy as the inoculant, nodulizer and deoxidizer to improve the temperature of the molten steel. In recent years, more and more pure Rare Earth metals are applied into manufacturing high performance alloy and superalloys.

Related mostly Rare Earth elements: **Yttrium, Lanthanum, Cerium,Praseodymium, Neodymium, Gadolinium,Terbium, Dysprosium**

Optical

Super pure Rare Earths are widely as dopants in high-concentration optical fibers, With the development of low-loss fibers and the availability of laser pump sources, there has been a renewed interest in rare earth doped glasses in fiber form. High purity grades are also the most important dopants for laser crystals, lens, and optical systems.

Related mostly Rare Earth elements: **Yttrium, Lanthanum, Cerium, Neodymium,Europium, Holmium, Erbium, Thulium,Lutetium.**



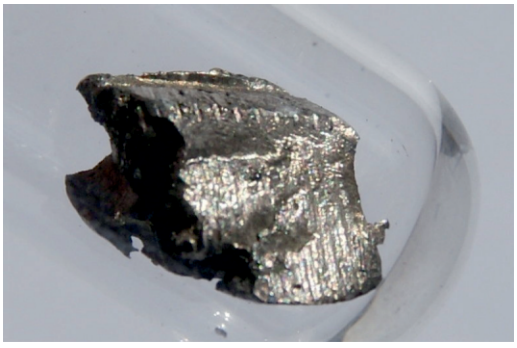
Rare Earth Metals

58 Cerium
Ce
140.12
$[Xe]4f^1 5d^1 6s^2$

Cerium

Cerium, atomic no.: 58, symbol as Ce, weight at 140.12, is the most abundant of the rare earths. It is characterized chemically by having two valence states, the +3 cerous and +4 ceric states. The ceric state is the only non-trivalent rare earth ion stable in aqueous solutions. It is, therefore, strongly acidic and a strong oxidizer. The cerous state closely resembles the other trivalent rare earths.

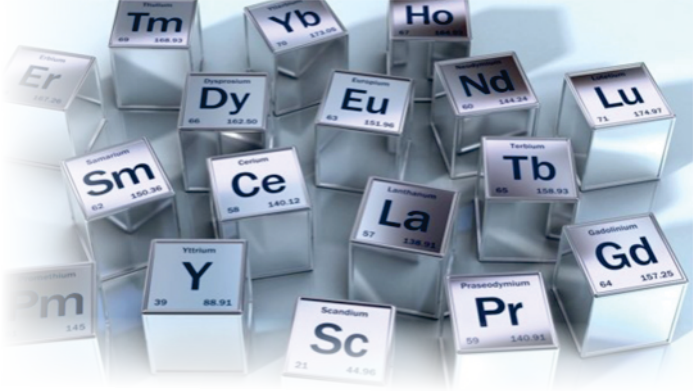
The numerous commercial applications for Cerium include glass and glass polishing, phosphors, ceramics, catalysts and metallurgy.



Product Code	Product Name	Packing
RE0100 $(NH_4)_2[Ce(NO_3)_6]$ (16774-21-3)	**Ammonium Ceric Nitrate** (Ammonium Cerium (IV) Nitrate) M. W.: 548.23 Assay (after drying ex Ce) 98.0%	**25 gm** **100 gm** **1 kg**
RE0110 $(NH_4)_2[Ce(NO_3)_6]$ (16774-21-3)	**Ammonium Ceric Nitrate AR/ACS** M. W.: 548.23 Assay (after drying ex Ce) 99.0%	**100 gm** **500 gm**
RE0120 $(NH_4)_4[Ce(SO_4)_4].{}_2H_2O$ (10378-47-9)	**Ammonium Ceric Sulphate** Dihydrate (Ammonium Cerium (IV) Sulphate) M. W.: 632.55 Assay (ex Ce) 90.0-105.0%	**100 gm** **500 gm**
RE0130 $(NH_4)_4[Ce(SO_4)_4].2H_2O$ (10378-47-9)	**Ammonium Ceric Sulphate AR/ACS** (Ceric Ammonium Sulphate) M. W.: 632.55 Assay 99.0%	**100 gm** **500 gm**
RE0150 $Ce(OH)_4$ (12014-56-1)	**Ceric Hydroxide AR** M. W.: 208.15 Assay (trace Metals Basis) 99.9%	**50 gm**
RE0165 CeO_2 (1306-38-3)	**Ceric Oxide AR** (Cerium IV Oxide) M. W.: 172.12 Assay (trace metals basis) 99.9%	**100 gm** **500 gm**
RE0170 CeO_2 (1306-38-3)	**Ceric Oxide AR** (Cerium IV Oxide) M. W.: 172.12 Assay (trace metals basis) 99.99%	**100 gm** **500 gm**
RE0175 CeO_2 (1306-38-3)	**Ceric Oxide AR** (Cerium IV Oxide) M. W.: 172.12 Assay (trace metals basis) 99.999%	**10 gm** **50 gm**
RE0190 $Ce(SO_4)_2.4H_2O$ (10294-42-5)	**Ceric Sulphate** Tetrahydrate **AR** M. W.: 404.30 Assay (ex Ce) 99.0%	**100 gm** **1 kg**

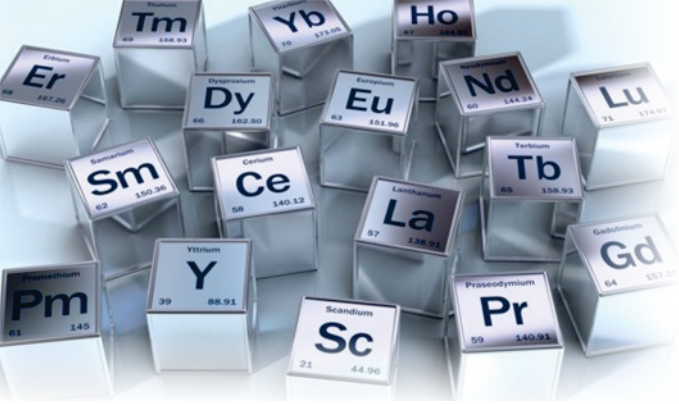
Product Code	Product Name	Packing
RE0205 Ce (7440-45-1)	**Cerium** Metal Ingot M. W.: 140.12 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE0210 Ce (7440-45-1)	**Cerium** Metal Lump (1cm) M. W.: 140.12 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE0215 Ce (7440-45-1)	**Cerium** Metal Powder 325 mesh At. W. 140.12 Assay (Trace metals basis) 99.9%	**5 gm** **25 gm**
RE0220 Ce (7440-45-1)	**Cerium** Metal Wire (0.1 mm) M. W.: 140.12 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE0225 Ce (7440-45-1)	**Cerium** Metal Rod (5mm x 30cm) M. W.: 140.12 Assay (Trace metal basis) 99.99%	**1 PCS**
RE0230 Ce (7440-45-1)	**Cerium** Metal Foil (0.25 mm x40 cm) M. W.: 140.12 Assay (Trace metal basis) 99.99%	**1 PCS**
RE0235 Ce (7440-45-1)	**Cerium** Metal Foil (0.50 mm x40 cm) M. W.: 140.12 Assay (Trace metal basis) 99.99%	**1 PCS**
RE0240 Ce (7440-45-1)	**Cerium** Metal SLAB (1cm x 40 cm) M. W.: 140.12 Assay (Trace metal basis) 99.99%	**1 PCS**
RE0245 Ce (7440-45-1)	**Cerium** Metal Disc (0.1 mm X Dia 35 cm) M. W.: 140.12 Assay (Trace metal basis) 99.99%	**1 PCS**
RE0260 $Ce(CH_3CO_2)_3.xH_2O$ (206996-60-3)	**Cerium (III) Acetate** M. W.: 317.25 (Anhy.) Assay (Trace metal basis) 99.9%	**100 gm** **500 gm**
RE0265 $Ce(CH_3CO_2)_3.xH_2O$ (206996-60-3)	**Cerium (III) Acetate** M. W.: 317.25 (Anhy.) Assay (Trace metal basis) 99.99%	**50 gm** **250 gm**

Rare Earth Metals



Product Code	Product Name	Packing
RE0270 $Ce(CH_3CO_2)_3.xH_2O$ (206996-60-3)	**Cerium (III) Acetate** M. W.: 317.25 (Anhy.) Assay (Trace metal basis) 99.999%	**10 gm** **50 gm**
RE0280 $Ce_2(CO_3)_3.xH_2O$ (54451-25-1)	**Cerium (III) Carbonate** M. W.: 460.27 (Anhy.) Assay (Trace metal basis) 99%	**100 gm**
RE0285 $Ce_2(CO_3)_3.xH_2O$ (54451-25-1)	**Cerium (III) Carbonate** M. W.: 460.27 (Anhy.) Assay (Trace metal basis) 99.9%	**100 gm** **500 gm**
RE0295 $Ce_2(CO_3)_3.xH_2O$ (54451-25-1)	**Cerium (III) Carbonate** M. W.: 460.27 (Anhy.) Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE0310 $CeCl_3$ (7790-86-5)	**Cerium (III) Chloride** M. W.: 246.48 Assay (Trace metal basis) 99.9%	**25 gm** **100 gm** **500 gm**
RE0315 $CeCl_3$ (7790-86-5)	**Cerium (III) Chloride** M. W.: 246.48 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE0320 $CeCl_3$ (7790-86-5)	**Cerium (III) Chloride** M. W.: 246.48 Assay (Trace metal basis) 99.999%	**10 gm** **100 gm**
RE0325 $CeCl_3.7H_2O$ (18618-55-8)	**Cerium(III)Chloride** Heptahydrate **AR** M. W.: 372.58 Assay (Trace metal basis) 98.5%	**100 gm** **1 kg**
RE0340 CeF_3 (7758-88-5)	**Cerium (III) Fluoride** M. W.: 197.12 Assay (trace metals basis) 99.9%	**50 gm**

Product Code	Product Name	Packing
RE0345 CeF_3 (7758-88-5)	**Cerium (III) Fluoride** M. W.: 197.12 Assay (trace metals basis) 99.99%	**10 gm** **50 gm**
RE0355 CeI_3 (7790-87-6)	**Cerium (III) Iodide** M. W.: 520.83 Assay (Trace metal basis) 99.95%	**5 gm** **25 gm**
RE0370 $Ce(NO_3)_3.6H_2O$ (10294-41-4)	**Cerium (III) Nitrate** M. W.: 434.23 Assay (trace metals basis) 99.9%	**100 gm** **1 kg**
RE0375 $Ce(NO_3)_3.6H_2O$ (10294-41-4)	**Cerium (III) Nitrate** M. W.: 434.23 Assay (trace metals basis) 99.99%	**50 gm** **500 gm**
RE0380 $Ce(NO_3)_3.6H_2O$ (10294-41-4)	**Cerium (III) Nitrate** M. W.: 434.23 Assay (trace metals basis) 99.999%	**25 gm** **125 gm**
RE0395 $Ce_2(C_2O_4)_3.xH_2O$ (15750-47-7)	**Cerium (III) Oxalate** M. W.: 544.29 (Anhy.) Assay (trace metals basis) 99.9%	**250 gm**
RE0405 $Ce_2(C_2O_4)_3.xH_2O$ (15750-47-7)	**Cerium (III) Oxalate** M. W.: 544.29 (Anhy.) Assay (trace metals basis) 99.999%	**50 gm**
RE0415 $Ce(SO_4)_3.xH_2O$ (13550-47-5)	**Cerium** (III) **Sulphate** M. W.: 568.42 Assay (ex Ce)(trace metals basis) 99.0%	**50 gm**
RE0425 $Ce(SO_4)_3.xH_2O$ (13550-47-5)	**Cerium (III) Sulphate** M. W.: 568.42 Assay (trace metals basis) 99.99%	**25 gm** **100 gm**



Rare Earth Metals

66 Dysprosium
Dy
162.500
$[Xe]4f^{10}6s^2$

Dysprosium

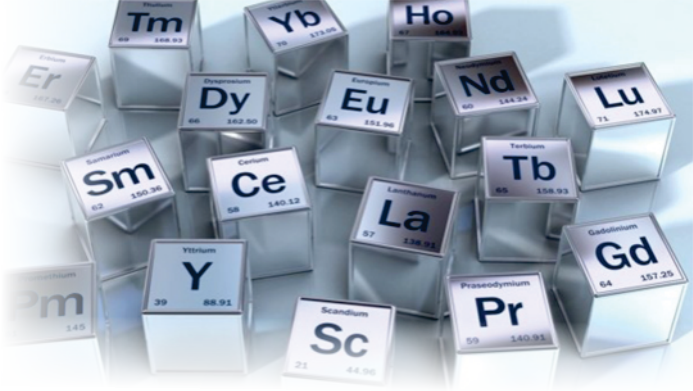
Dysprosium, atomic no.: 66, symbol as Dy, weight at 162.50, is most commonly used as in Neodymium-iron-boron high strength permanent magnets. While it has one of the highest magnetic moments of any of the rare earths (10.6uB), this has not resulted in an ability to perform on its own as a practical alternative to Neodymium compositions.

It is however now an essential additive in NdFeB production. It is also used in special ceramic compositions based on BaTiO formulations.

Product Code	Product Name	Packing
RE0435 Dy (7429-91-6)	**Dysprosium** Metal Ingot M. W.: 162.50 Assay (Trace metals basis) 99.99%	**5 gm** **25 gm**
RE0440 Dy (7429-91-6)	**Dysprosium** Metal Lump (1cm) M. W.: 162.50 Assay (Trace metals basis) 99.99%	**5 gm** **25 gm**
RE0445 Dy (7429-91-6)	**Dysprosium** Metal Powder 325 mesh M. W.: 162.50 Assay (Trace metals basis) 99.99%	**5 gm** **10 gm** **25 gm**
RE0450 Dy (7429-91-6)	**Dysprosium** Metal Wire (0.1mm) M. W.: 162.50 Assay (Trace metals basis) 99.99%	**5 gm** **25 gm**
RE0455 Dy (7429-91-6)	**Dysprosium** Metal Rod (5mmx30cm) M. W.: 162.50 Assay (Trace metals basis) 99.9%	**1 PC**
RE0460 Dy (7429-91-6)	**Dysprosium** Metal Foil (0.25mmx40cm) M. W.: 162.50 Assay (Trace metals basis) 99.99%	**1 PC**
RE0465 Dy (7429-91-6)	**Dysprosium** Metal Foil (0.50mmx40cm) M. W.: 162.50 Assay (Trace metals basis) 99.99%	**1 PC**
RE0470 Dy (7429-91-6)	**Dysprosium** Metal Slab (1cmx40cm) M. W.: 162.50 Assay (Trace metals basis) 99.99%	**1 PC**
RE0475 Dy (7429-91-6)	**Dysprosium** Metal Disc (0.1mmxdia35cm) M. W.: 162.50 Assay (Trace metals basis) 99.99%	**1 PC**
RE0485 $(CH_3CO_2)_3Dy.XH_2O$ (304675-49-8)	**Dysprosium** (III) **Acetate** M. W.: 339.62 (Anhy.) Assay (Trace metals basis) 99.9%	**25 gm**
RE0490 $(CH_3CO_2)_3Dy.XH_2O$ (304675-49-8)	**Dysprosium** (III) **Acetate** M. W.: 339.62 (Anhy.) Assay (Trace metals basis) 99.99%	**10 gm** **50 gm**

Product Code	Product Name	Packing
RE0495 $(CH_3CO_2)_3Dy.XH_2O$ (304675-49-8)	**Dysprosium** (III) **Acetate** M. W.: 339.62 (Anhy.) Assay (Trace metals basis) 99.999%	**1 gm** **10 gm**
RE0505 $DyBr_3$ (14456-48-5)	**Dysprosium** (III) **Bromide** M. W.; 402.21 Assay (Trace metals basis) 99.95%	**1 gm** **5 gm**
RE0515 $Dy_2(CO_3)_3.XH_2O$ (38245-35-1)	**Dysprosium** (III) **Carbonate** M. W.: 505.03 Assay (Trace metals basis) 99%	**25 gm** **100 gm**
RE0520 $Dy_2(CO_3)_3.XH_2O$ (38245-35-1)	**Dysprosium** (III) **Carbonate** M. W.: 505.03 Assay (Trace metals basis) 99.99%	**5 gm** **25 gm**
RE0525 $Dy_2(CO_3)_3.XH_2O$ (38245-35-1)	**Dysprosium** (III) **Carbonate** M. W.: 505.03 Assay (Trace metals basis) 99.999%	**5 gm** **25 gm**
RE0540 $DyCl_3.6H_2O$ (15059-52-6)	**Dysprosium** (III) **Chloride** M. W.: 376.95 Assay (Trace metals basis) 99.99%	**10 gm** **50 gm**
RE0545 $DyCl_3.6H_2O$ (15059-52-6)	**Dysprosium** (III) **Chloride** M. W.: 376.95 Assay (Trace metals basis) 99.999%	**5 gm** **25 gm**
RE0565 DyF_3 (13569-80-7)	**Dysprosium** (III)**Fluoride** M. W.: 219.50 Assay (Trace metals basis) 99.99%	**25 gm**
RE0570 DyF_3 (13569-80-7)	**Dysprosium** (III) **Fluoride** M. W.: 219.50 Assay (Trace metals basis) 99.999%	**5 gm** **25 gm**
Re0580 DyI_3 (15474-63-2)	**Dysprosium** (III) **Iodide** M. W.: 543.21 Assay (Trace metals basis) 99.9%	**1 gm** **5 gm**
RE0585 DyI_3 (15474-63-2)	**Dysprosium** (III) **Iodide** M. W.: 543.21 Assay (Trace metals basis) 99.99%	**1 gm** **5 gm** **25 gm**

Rare Earth Metals



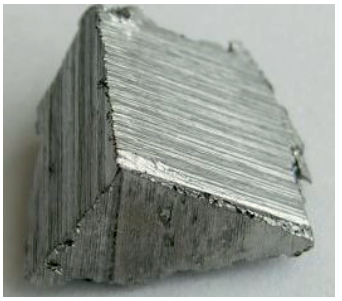
Product Code	Product Name	Packing
RE0600 $Dy(NO_3)_3.XH_2O$ (100641-13-2)	**Dysprosium** (III) **Nitrate** M. W.: 348.52 Assay (Trace metals basis) 99.9%	**25 gm** **100 gm**
RE0605 $Dy(NO_3)_3.XH_2O$ (100641-13-2)	**Dysprosium** (III) **Nitrate** M. W.: 348.52 Assay (Trace metals basis) 99.99%	**25 gm**
RE0610 $Dy(NO_3)_3.XH_2O$ (100641-13-2)	**Dysprosium** (III) **Nitrate** M. W.: 348.52 Assay (Trace metals basis) 99.999%	**5 gm** **25 gm**
RE0625 $Dy_2(C_2O_4)_3.10H_2O$ (24670-07-3)	**Dysprosium** (III) **Oxalate** M. W.: 769.21 Assay (Trace metals basis) 99.9%	**25 gm** **100 gm**
RE0630 $Dy_2(C_2O_4)_3.10H_2O$ (24670-07-3)	**Dysprosium** (III) **Oxalate** M. W.: 769.21 Assay (Trace metals basis) 99.99%	**5 gm** **25 gm**
RE0635 $Dy_2(C_2O_4)_3.10H_2O$ (24670-07-3)	**Dysprosium** (III) **Oxalate** M. W.: 769.21 Assay (Trace metals basis) 99.999%	**5 gm** **25 gm**

Product Code	Product Name	Packing
RE0650 Dy_2O_3 (1308-87-8)	**Dysprosium** (III) **Oxide** M. W.: 373.00 Assay (Trace metals basis) 99.9%	**5 gm** **25 gm** **100 gm**
RE0655 Dy_2O_3 (1308-87-8)	**Dysprosium** (III) **Oxide** M. W.: 373.00 Assay (Trace metals basis) 99.99%	**25 gm**
RE0660 Dy_2O_3 (1308-87-8)	**Dysprosium** (III) **Oxide** M. W.: 373.00 Assay (Trace metals basis) 99.999%	**5 gm** **25 gm**
RE0675 $Dy(SO_4)_3.XH_2O$ (14373-91-2)	**Dysprosium** (III) **Sulphate** M. W.: 613.19 (Anhy.) Assay (Trace metals basis) 99.9%	**25 gm** **100 gm**
RE0680 $Dy(SO_4)_3.XH_2O$ (14373-91-2)	**Dysprosium** (III) **Sulphate** M. W.: 613.19 (Anhy.) Assay (Trace metals basis) 99.99%	**5 gm** **25 gm**

Erbium

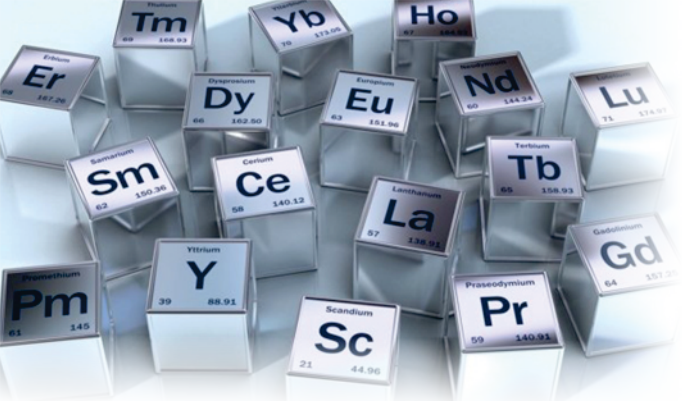
Erbium, atomic no.: 68, symbol as Er, weight at 167.26, has application in glass coloring, as an amplifier in fiber optics, and in lasers for medical and dental use. It is commonly used as a photographic filter, and because of its resilience it is useful as a metallurgical additive.

The Erbium ion has a very narrow absorption band coloring erbium salts pink. It is therefore used in eyeware and decorative glassware. It can neutralize discoloring impurities such as ferric ions and produce a neutral gray shade. It is used in a variety of glass products for this purpose.



Product Code	Product Name	Packing
RE0700 Er (7440-52-0)	**Erbium** Metal **Ingot** M. W.: 167.26 Assay (Trace metal basis) 99.99%	**10 gm**
RE0705 Er (7440-52-0)	**Erbium** Metal **Lump** (1 cm) M. W.: 167.26 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm** **25 gm**
RE0710 Er (7440-52-0)	**Erbium** Metal **Powder** 325 Mesh M. W.: 167.26 Assay (Trace metal basis) 99.9%	**5 gm** **25 gm**
RE0715 Er (7440-52-0)	**Erbium** Metal **Wire** (0.1mm) M. W.: 167.26 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**

Product Code	Product Name	Packing
RE0720 Er (7440-52-0)	**Erbium** Metal **Rod** (5cmx30cm) M. W.: 167.26 Assay (Trace metal basis) 99.99%	**1 PC**
RE0725 Er (7440-52-0)	**Erbium** Metal **Foil** (0.25mm x 40 cm) M. W.: 167.26 Assay (Trace metal basis) 99.99%	**1 PC**
RE0730 Er (7440-52-0)	**Erbium** Metal **Foil** (0.50mm x 40 cm) M. W.: 167.26 Assay (Trace metal basis) 99.99%	**1 PC**
RE0735 Er (7440-52-0)	**Erbium** Metal **Slab** (1cm x 40 cm) M. W.: 167.26 Assay (Trace metal basis) 99.99%	**1 PC**

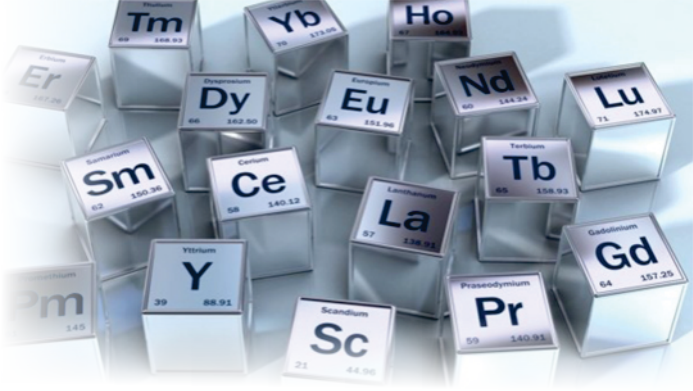


RARE EARTH METALS

Product Code	Product Name	Packing
RE0740 Er (7440-52-0)	**Erbium** Metal **Disc** (0.1mm x dia35 cm) M. W.: 167.26 Assay (Trace metal basis) 99.99%	**1 PC**
RE0755 $C_6H_9ErO_6.XH_2O$ (207234-04-6)	**Erbium (III) Acetete** M. W.: 344.39 Assay (Trace metal basis) 99.9%	**5 gm** **10 gm** **25 gm** **100 gm**
RE0760 $C_6H_9ErO_6.XH_2O$ (207234-04-6)	**Erbium (III) Acetete** M. W.: 344.39 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE0765 $C_6H_9ErO_6.XH_2O$ (207234-04-6)	**Erbium (III) Acetete** M. W.: 344.39 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE0780 $Er_2(CO_3)_3.XH_2O$ (22992-83-2)	**Erbium (III) Carbonate** M. W. : 514.54 (anhy.) Assay (Trace metal basis) 99.9%	**5 gm** **25 gm** **100 gm**
RE0785 $Er_2(CO_3)_3.XH_2O$ (22992-83-2)	**Erbium (III) Carbonate** M. W. : 514.54 (anhy.) Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE0790 $Er_2(CO_3)_3.XH_2O$ (22992-83-2)	**Erbium (III) Carbonate** M. W. : 514.54 (anhy.) Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE0805 $ErCl_3.6H_2O$ (10025-75-9)	**Erbium (III) Chloride** M. W.: 381.71 Assay (Trace metal basis) 99.9%	**25 gm** **100 gm**
RE0810 $ErCl_3.6H_2O$ (10025-75-9)	**Erbium (III) Chloride** M. W.: 381.71 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE0815 $ErCl_3.6H_2O$ (10025-75-9)	**Erbium (III) Chloride** M. W.: 381.71 Assay (Trace metal basis) 99.999%	**20 gm**

Product Code	Product Name	Packing
RE0825 ErI_3 (13813-42-8)	**Erbium (III) Iodide** M. W.: 547.97 Assay (Trace metal basis) 99.95%	**1 gm** **10 gm**
RE0840 $Er(NO_3)_3.5H_2O$ (10031-51-3)	**Erbium (III) Nitrate** M. W.: 443.35 Assay (Trace metal basis) 99.9%	**25 gm** **100 gm**
RE0845 $Er(NO_3)_3.5H_2O$ (10031-51-3)	**Erbium (III) Nitrate** M. W.: 443.35 Assay (Trace metal basis) 99.99%	**25 gm**
RE0850 $Er(NO_3)_3.5H_2O$ (10031-51-3)	**Erbium (III) Nitrate** M. W.: 443.35 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE0865 Er_2O_3 (12061-16-4)	**Erbium (III) Oxide** M. W.: 382.56 Assay (Trace metal basis) 99.9%	**25 gm** **100 gm** **1 kg**
RE0870 Er_2O_3 (12061-16-4)	**Erbium (III) Oxide** M. W.: 382.56 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm** **100 gm** **500 gm**
RE0875 Er_2O_3 (12061-16-4)	**Erbium (III) Oxide** M. W.: 382.56 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm** **100 gm**
RE0890 $Er_2(SO_4)_3.8H_2O$ (10031-52-4)	**Erbium (III) Sulphate** M. W.: 766.82 Assay (Trace metal basis) 99.9%	**5 gm** **50 gm** **100 gm**
RE0895 $Er_2(SO_4)_3.8H_2O$ (10031-52-4)	**Erbium (III) Sulphate** M. W.: 766.82 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE0900 $Er_2(SO_4)_3.8H_2O$ (10031-52-4)	**Erbium (III) Sulphate** M. W.: 766.82 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**

Rare Earth Metals



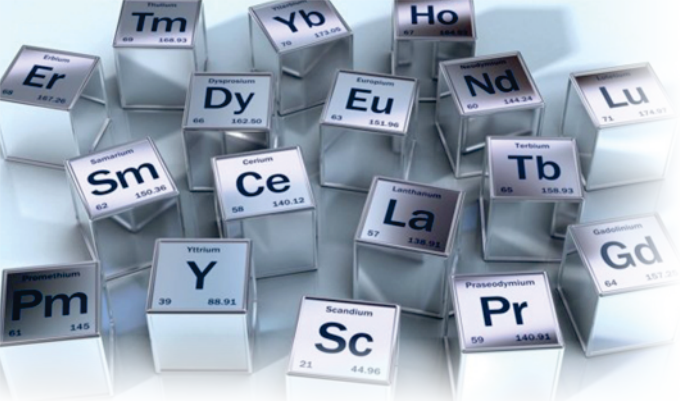
63 Europium
Eu
151.96
$[Xe]4f^7 6s^2$

Europium

Europium, atomic no.: 63, symbol as Eu, weight at 151.96, is utilized primarily for its unique luminescent behavior. Excitation of the Europium atom by absorption of ultra violet radiation can result in specific energy level transitions within the atom creating an emission of visible radiation. It is a dopant in some types of glass in lasers and other optoelectronic devices. Europium Oxide (Eu_2O_3) is widely used as a red phosphor in television sets and fluorescent lamps, and as an activator for Yttrium-based phosphors.

Product Code	Product Name	Packing
RE0910 Eu (7440-53-1)	**Europium** Metal **Ingot** M. W.: 151.96 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm** **25 gm**
RE0915 Eu (7440-53-1)	**Europium** Metal **Lump** (1cm) M. W.: 151.96 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm** **25 gm**
RE0925 $Eu(O_2C_2H_3)_3.XH_2O$ (62667-64-5)	**Europium** (III) **Acetate** M. W.: 329.1 (anhy.) Assay (Trace metal basis) 99.9%	**5 gm** **25 gm**
RE0930 $Eu(O_2C_2H_3)_3.XH_2O$ (62667-64-5)	**Europium** (III) **Acetate** M. W.: 329.1 (anhy.) Assay (Trace metal basis) 99.99%	**1 gm** **5 gm** **25 gm**
RE0935 $Eu(O_2C_2H_3)_3.XH_2O$ (62667-64-5)	**Europium** (III) **Acetate** M. W.: 329.1 (anhy.) Assay (Trace metal basis) 99.999%	**1 gm** **10 gm** **50 gm**
RE0945 $EuBr_3.XH_2O$ (560069-78-5)	**Europium** (III) **Bromide** M. W.: 391.68 (anhy.) Assay (Trace metal basis) 99.99%	**5 gm**
RE0955 $Eu_2(CO_3)_3.XH_2O$ (86546-99-8)	**Europium** (III) **Carbonate** M. W.: 483.95 (anhy.) Assay (Trace metal basis) 99.9%	**5 gm** **25 gm**
RE0960 $Eu_2(CO_3)_3.XH_2O$ (86546-99-8)	**Europium** (III) **Carbonate** M. W.: 483.95 (anhy.) Assay (Trace metal basis) 99.99%	**1 gm** **5 gm** **25 gm**
RE0965 $Eu_2(CO_3)_3.XH_2O$ (86546-99-8)	**Europium** (III) **Carbonate** M. W.: 483.95 (anhy.) Assay (Trace metal basis) 99.999%	**1 gm** **5 gm** **25 gm**
RE0975 $EuCl_3.6H_2O$ (13759-92-7)	**Europium** (III) **Chloride** M. W.: 366.41 Assay (Trace metal basis) 99.9%	**5 gm** **25 gm**
RE0980 $EuCl_3.6H_2O$ (13759-92-7)	**Europium** (III) **Chloride** M. W.: 366.41 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm** **25 gm**
RE0985 $EuCl_3.6H_2O$ (13759-92-7)	**Europium** (III) **Chloride** M. W.: 366.41 Assay (Trace metal basis) 99.999%	**1 gm** **5 gm** **25 gm**

Product Code	Product Name	Packing
RE0995 $Eu(NO_3)_3.6H_2O$ (10031-53-5)	**Europium** (III) **Nitrate** M. W.: 446.06 Assay (Trace metal basis) 99.9%	**1 gm** **2 gm** **10 gm** **50 gm**
RE1000 $Eu(NO_3)_3.6H_2O$ (10031-53-5)	**Europium** (III) **Nitrate** M. W.: 446.06 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm** **25 gm**
RE1005 $Eu(NO_3)_3.6H_2O$ (10031-53-5)	**Europium** (III) **Nitrate** M. W.: 446.06 Assay (Trace metal basis) 99.999%	**1 gm** **5 gm** **25 gm**
RE1015 $Eu_2(C_2O_4)_3.XH_2O$ (304675-55-6)	**Europium** (III) **Oxalate** M. W.: 567.99 (anhy.) Assay (Trace metal basis) 99.9%	**10 gm** **25 gm**
RE1020 $Eu_2(C_2O_4)_3.XH_2O$ (304675-55-6)	**Europium** (III) **Oxalate** M. W.: 567.99 (anhy.) Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE1025 $Eu_2(C_2O_4)_3.XH_2O$ (304675-55-6)	**Europium** (III) **Oxalate** M. W.: 567.99 (anhy.) Assay (Trace metal basis) 99.999%	**1 gm** **5 gm** **25 gm**
RE1035 Eu_2O_3 (1308-96-9)	**Europium** (III) **Oxide** M. W.: 351.92 Assay (trace metals basis) 99.9%	**1 gm** **5 gm** **25 gm**
RE1040 Eu_2O_3 (1308-96-9)	**Europium** (III) **Oxide** M. W.: 351.92 Assay (trace metals basis) 99.99%	**1 gm** **5 gm** **25 gm** **100 gm**
RE1045 Eu_2O_3 (1308-96-9)	**Europium** (III) **Oxide** M. W.: 351.92 Assay (trace metals basis) 99.999%	**25 gm** **100 gm**
RE1055 $Eu_2(SO_4)_3.XH_2O$ (20814-06-6)	**Europium** (III) **Sulphate** M. W.: 592.10 (anhy.) Assay (trace metals basis) 99.9%	**1 gm** **5 gm** **25 gm**
RE1060 $Eu_2(SO_4)_3.XH_2O$ (20814-06-6)	**Europium** (III) **Sulphate** M. W.: 592.10 (anhy.) Assay (trace metals basis) 99.99%	**1 gm** **5 gm** **25 gm**
RE1065 $Eu_2(SO_4)_3.XH_2O$ (20814-06-6)	**Europium** (III) **Sulphate** M. W.: 592.10 (anhy.) Assay (trace metals basis) 99.999%	**1 gm** **5 gm** **25 gm**



Rare Earth Metals

64 Gadolinium
Gd
157.25
$[Xe]4f^7 5d^1 6s^2$

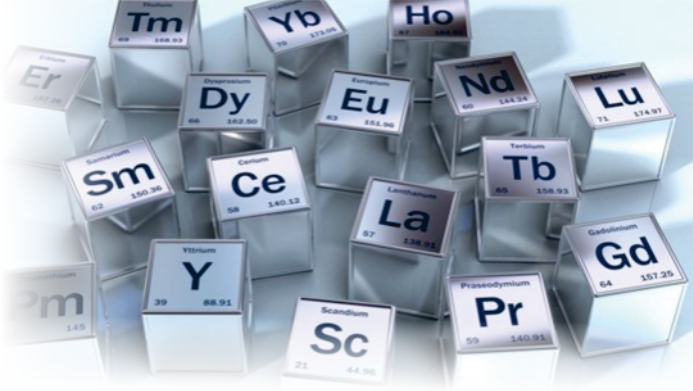
Gadolinium

Gadolinium, atomic no.: 64, symbol as Gd, weight at 157.25, is utilized for both its high magnetic moment (7.94uB) and in phosphors and scintillated material. When mixed with EDTA dopants, it is used as an injectable contrast agent for patients undergoing magnetic resonance imaging. With its high magnetic moment, Gadolinium can reduce relaxation times and thereby enhance signal intensity.

Product Code	Product Name	Packing
RE1075 Gd (7440-54-2)	**Gadolinium** Metal Ingot M. W.: 157.25 Assay (Trace metal basis) 99.99%	**10 gm**
RE1080 Gd (7440-54-2)	**Gadolinium** Metal Lump (1 cm) M. W.: 157.25 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE1085 Gd (7440-54-2)	**Gadolinium** Metal Powder 325 mesh M. W.: 157.25 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm** **100 gm**
RE1090 Gd (7440-54-2)	**Gadolinium** Metal Rod (5mmx30cm) M. W.: 157.25 Assay (Trace metal basis) 99.99%	**1 PC**
RE1095 Gd (7440-54-2)	**Gadolinium** Metal Foil (0.25mmx40cm) M. W.: 157.25 Assay (Trace metal basis) 99.99%	**1 PC**
RE1100 Gd (7440-54-2)	**Gadolinium** Metal Foil (0.50mmx40cm) M. W.: 157.25 Assay (Trace metal basis) 99.99%	**1 PC**
RE1105 Gd (7440-54-2)	**Gadolinium** Metal SLAB (1cmx40cm) M. W.: 157.25 Assay (Trace metal basis) 99.99%	**1 PC**
RE1110 Gd (7440-54-2)	**Gadolinium** Metal Disc (0.1mmx35cm) M. W.: 157.25 Assay (Trace metal basis) 99.99%	**1 PC**
RE1125 $Gd(CH_3CO_2)_3.XH_2O$ (100587-93-7)	**Gadolinium** (III) **Acetate** M. W.: 334.39 Assay (Trace metal basis) 99.9%	**5 gm** **25 gm** **100 gm**
RE1130 $Gd(CH_3CO_2)_3.XH_2O$ (100587-93-7)	**Gadolinium** (III) **Acetate** M. W.: 334.39 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE1135 $Gd(CH_3CO_2)_3.XH_2O$ (100587-93-7)	**Gadolinium** (III) **Acetate** M. W.: 334.39 Assay (Trace metal basis) 99.999%	**5 gm** **10 gm** **25 gm**
RE1145 $Gd_2(CO_3)_3.XH_2O$ (38245-36-2)	**Gadolinium** (III) **Carbonate** M. W.: 494.53 Assay (Trace metal basis) 99%	**25 gm** **100 gm** **500 gm**

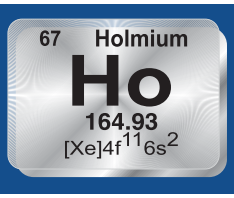
Product Code	Product Name	Packing
RE1150 $Gd_2(CO_3)_3.XH_2O$ (38245-36-2)	**Gadolinium** (III) **Carbonate** M. W.: 494.53 Assay (Trace metal basis) 99.9%	**10 gm** **100 gm**
RE1155 $Gd_2(CO_3)_3.XH_2O$ (38245-36-2)	**Gadolinium** (III) **Carbonate** M. W.: 494.53 Assay (Trace metal basis) 99.99%	**25 gm**
RE1160 $Gd_2(CO_3)_3.XH_2O$ (38245-36-2)	**Gadolinium** (III) **Carbonate** M. W.: 494.53 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE1175 $GdCl_3.6H_2O$ (13450-84-5)	**Gadolinium** (III) **Chloride** M. W.: 371.70 Assay (Trace metal basis) 99.9%	**10 gm** **25 gm** **100 gm** **1 kg**
RE1180 $GdCl_3.6H_2O$ (13450-84-5)	**Gadolinium** (III) **Chloride** M. W.: 371.70 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE1185 $GdCl_3.6H_2O$ (13450-84-5)	**Gadolinium** (III) **Chloride** M. W.: 371.70 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE1195 GdI_3 (13572-98-0)	**Gadolinium** (III) **Iodide** M.W. : 537.96 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE1210 $Gd(NO_3)_3.XH_2O(X=6)$ (94219-55-3)	**Gadolinium** (III) **Nitrate** M. W.: 343.26 (anhy.) Assay (Trace metal basis) 99.9%	**25 gm** **100 gm**
RE1215 $Gd(NO_3)_3.XH_2O(X=6)$ (94219-55-3)	**Gadolinium** (III) **Nitrate** M. W.: 343.26 (anhy.) Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE1220 $Gd(NO_3)_3.XH_2O(X=6)$ (94219-55-3)	**Gadolinium** (III) **Nitrate** M. W.: 343.26 (anhy.) Assay (Trace metal basis) 99.999%	**10 gm**
RE1230 $Gd_2(C_2O_4)_3.10H_2O$ (22992-15-0)	**Gadolinium** (III) **Oxalate** M. W.: 578.55 Assay (Trace metal basis) 99%	**25 gm** **100 gm** **500 gm**

Rare Earth Metals



Product Code	Product Name	Packing
RE1240 $Gd_2(C_2O_4)_3.10H_2O$ (22992-15-0)	**Gadolinium** (III) **Oxalate** M. W.: 578.55 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE1245 $Gd_2(C_2O_4)_3.10H_2O$ (22992-15-0)	**Gadolinium** (III) **Oxalate** M. W.: 578.55 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE1255 Gd_2O_3 (12064-62-9)	**Gadolinium** (III) **Oxide** M. W.: 362.50 Assay (Trace metal basis) 99.9%	**5 gm** **25 gm** **100 gm** **500 gm**
RE1260 Gd_2O_3 (12064-62-9)	**Gadolinium** (III) **Oxide** M. W.: 362.50 Assay (Trace metal basis) 99.99%	**25 gm** **50 gm** **250 gm** **1 kg**

Product Code	Product Name	Packing
RE1265 Gd_2O_3 (12064-62-9)	**Gadolinium** (III) **Oxide** M. W.: 362.50 Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE1270 Gd_2O_3 (12064-62-9)	**Gadolinium** (III) **Oxide** M. W.: 362.50 Assay (Trace metal basis) 99.9999%	**5 gm** **25 gm**
RE1285 $Gd_2(SO_4)_3.8H_2O$ (13450-87-8)	**Gadolinium** (III) **Sulphate** M. W.: 746.81 Assay (Trace metal basis) 99.9%	**10 gm** **50 gm** **100 gm**
RE1295 $Gd_2(SO_4)_3.8H_2O$ (13450-87-8)	**Gadolinium** (III) **Sulphate** M. W.: 746.81 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**



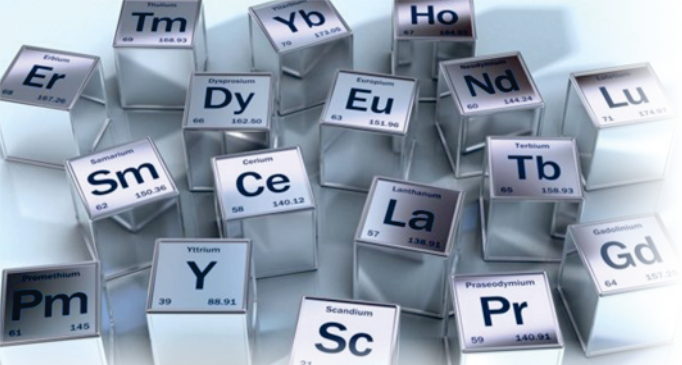
Holmium

Holmium, atomic no.: 67, symbol as Ho, weight at 164.93, has the highest magnetic moment (10.6uB) of any naturally occurring element. Because of this it has been used to create the highest known magnetic fields by placing it within high strength magnets as a pole piece or magnetic flux concentrator.

This magnetic property also has value in Yttrium-Iron-Garnet (YIG) lasers for microwave equipment.

Product Code	Product Name	Packing
RE1310 Ho (7440-60-0)	**Holmium** Metal Lump M. W.: 164.93 Assay (Trace metal basis) 99.99%	**5 gm**
RE1315 Ho (7440-60-0)	**Holmium** Metal Powder 325 mesh M. W.: 164.93 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm** **100 gm**
RE1320 Ho (7440-60-0)	**Holmium** Metal Wire (0.1mm) M. W.: 164.93 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE1325 Ho (7440-60-0)	**Holmium** Metal Rod (5mmx30cm) M. W.: 164.93 Assay (Trace metal basis) 99.99%	**1 PC**
RE1330 Ho (7440-60-0)	**Holmium** Metal Foil (0.25mmx40 cm) M. W.: 164.93 Assay (Trace metal basis) 99.99%	**1 PC**

Product Code	Product Name	Packing
RE1335 Ho (7440-60-0)	**Holmium** Metal Foil (0.50mmx40 cm) M. W.: 164.93 Assay (Trace metal basis) 99.99%	**1 PC**
RE1340 Ho (7440-60-0)	**Holmium** Metal SLAB (1cmx40cm) M. W.: 164.93 Assay (Trace metal basis) 99.99%	**1 PC**
RE1345 Ho (7440-60-0)	**Holmium** Metal Disc (0.1mmxdia 35cm) M. W.: 164.93 Assay (Trace metal basis) 99.99%	**1 PC**
RE1360 $Ho(O_2C_2H_3)_3.XH_2O$ (312619-49-1)	**Holmium** (III) **Acetate** M. W.: 342.07 Assay (Trace metal basis) 99.9%	**2 gm** **10 gm** **25 gm**
RE1365 $Ho(O_2C_2H_3)_3.XH_2O$ (312619-49-1)	**Holmium** (III) **Acetate** M. W.: 342.07 Assay (Trace metal basis) 99.99%	**10 gm** **50 gm**



Rare Earth Metals

Product Code	Product Name	Packing
RE1370 $Ho(O_2C_2H_3)_3.XH_2O$ (312619-49-1)	**Holmium** (III) **Acetate** M. W.: 342.07 Assay (Trace metal basis) 99.999%	**1 gm** **5 gm**
RE1380 $Ho_2(CO_3)_3.XH_2O$ (38245-34-0)	**Holmium** (III) **Carbonate** M. W.: 509.88 Assay (Trace metal basis) 99.90%	**10 gm** **50 gm** **100 gm**
RE1390 $HoCl_3.6H_2O$ (14914-84-2)	**Holmium** (III) **Chloride** M. W.: 379.38 Assay (Trace metal basis) 99.90%	**5 gm** **25 gm** **100 gm**
RE1400 HoI_3 (13813-41-7)	**Holmium** (III) **Iodide** M.W. : 545.64 Assay (Trace metal basis) 99.95%	**1 gm** **5 gm**
RE1415 $Ho_2.O_3$ (12055-62-8)	**Holmium** (III) **Oxide** M. W.: 377.86 Assay (Trace metal basis) 99.9%	**5 gm** **10 gm** **50 gm**

Product Code	Product Name	Packing
RE1420 $Ho_2.O_3$ (12055-62-8)	**Holmium** (III) **Oxide** M. W.: 377.86 Assay (Trace metal basis) 99.99%	**5 gm** **10 gm** **50 gm**
RE1425 $Ho_2.O_3$ (12055-62-8)	**Holmium** (III) **Oxide** M. W.: 377.86 Assay (Trace metal basis) 99.999%	**1 gm** **5 gm** **25 gm**
RE1440 $Ho_2(SO_4)_3.8H_2O$ (13473-57-9)	**Holmium** (III) **Sulphate** M.W. : 762.17 Assay (Trace metal basis) 99.9%	**5 gm** **25 gm**
RE1445 $Ho_2(SO_4)_3.8H_2O$ (13473-57-9)	**Holmium** (III) **Sulphate** M.W. : 762.17 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE1450 $Ho_2(SO_4)_3.8H_2O$ (13473-57-9)	**Holmium** (III) **Sulphate** M.W. : 762.17 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**

Lanthanum

Lanthanum, atomic no.: 57, symbol as La, weight at 138.91, is the first element in the rare earth or Lanthanide series. It is the model for all the other trivalent rare earths. After Cerium, it is the second most abundant of the rare earths.

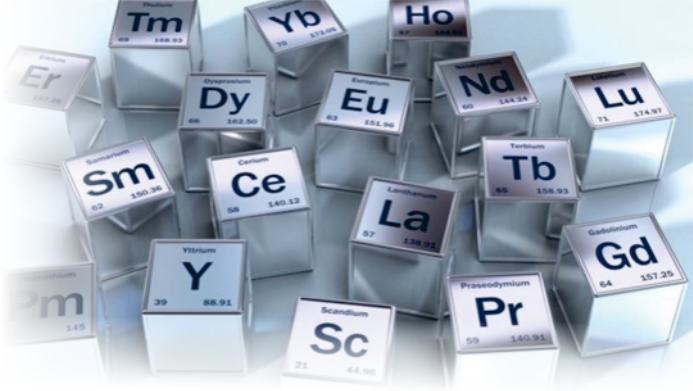
Lanthanum-rich Lanthanide compounds have been used extensively for cracking reactions in FCC catalysts, especially to manufacture high-octane gasoline from heavy crude oil.

Lanthanum-Rich Rare Earth metals play the important roles in hydrogen storage batteries.Lanthanum Fluoride is used in phosphor lamp coatings.

Product Code	Product Name	Packing
RE1460 La (7439-91-0)	**Lanthanum** Metal Ingot M. W.: 138.91 Assay (Trace metal basis) 99.99%	**25 gm**
RE1465 La (7439-91-0)	**Lanthanum** Metal Lump (1cm) M. W.: 138.91 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE1470 La (7439-91-0) La	**Lanthanum** Metal Wire (0.1mm) M. W.: 138.91 Assay (Trace metal basis) 99.99% M. W.: 138.91	**5 gm** **25 gm**
RE1475 La (7439-91-0)	**Lanthanum** Metal Rod (5mmx30cm) M. W.: 138.91 Assay (Trace metal basis) 99.99%	**1 PC**

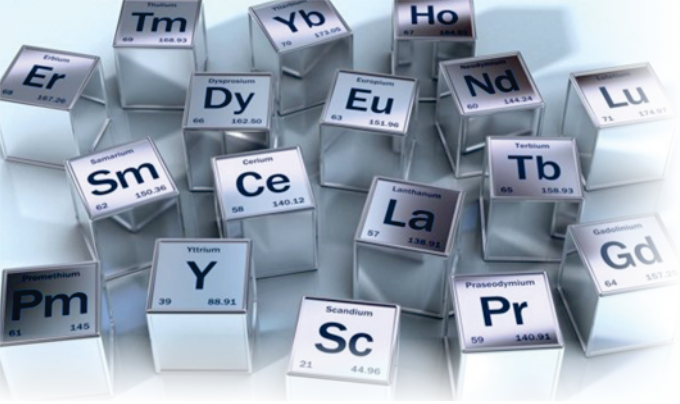
Product Code	Product Name	Packing
RE1480 La (7439-91-0)	**Lanthanum** Metal Foil (0.25mmx40 cm) M. W.: 138.91 Assay (Trace metal basis) 99.99%	**1 PC**
RE1485 La (7439-91-0)	**Lanthanum** Metal Foil (0.50mmx40 cm) M. W.: 138.91 Assay (Trace metal basis) 99.99%	**1 PC**
RE1490 La (7439-91-0)	**Lanthanum** Metal SLAB (1cmx40cm) M. W.: 138.91 Assay (Trace metal basis) 99.99%	**1 PC**
RE1495 La (7439-91-0)	**Lanthanum** Metal Disc (0.1mmx35cm) M. W.: 138.91 Assay (Trace metal basis) 99.99%	**1 PC**

Rare Earth Metals



Product Code	Product Name	Packing
RE1510 $La(CH_3CO_2)_3.XH_2O$ (100587-90-4)	**Lanthanum Acetate** M. W.: 316.04 (anhy.) Assay (Trace metal basis) 99.9%	**100 gm** **500 gm**
RE1515 $La(CH_3CO_2)_3.XH_2O$ (100587-90-4)	**Lanthanum Acetate** M. W.: 316.04 (anhy.) Assay (Trace metal basis) 99.99%	**25 gm** **250 gm**
RE1520 $La(CH_3CO_2)_3.XH_2O$ (100587-90-4)	**Lanthanum Acetate** M. W.: 316.04 (anhy.) Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE1530 $La_2(CO_3)_3.XH_2O$ (54451-24-0)	**Lanthanum Carbonate** M. W.: 457.85 (anhy.) Assay (Trace metal basis) 99.5%	**25 gm** **100 gm** **500 gm**
RE1535 $La_2(CO_3)_3.XH_2O$ (54451-24-0)	**Lanthanum Carbonate** M. W.: 457.85 (anhy.) Assay (Trace metal basis) 99.9%	**100 gm** **500 gm**
RE1540 $La_2(CO_3)_3.XH_2O$ (54451-24-0)	**Lanthanum Carbonate** M. W.: 457.85 (anhy.) Assay (Trace metal basis) 99.99%	**100 gm** **500 gm**
RE1545 $La_2(CO_3)_3.XH_2O$ (54451-24-0)	**Lanthanum Carbonate** M. W.: 457.85 (anhy.) Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE1555 $LaCl_3.XH_2O$ (20211-76-1)	**Lanthanum Chloride** M. W.: 245.27 (anhy.) Assay (Trace metal basis) 99.0%	**100 gm** **500 gm**
RE1560 $LaCl_3.XH_2O$ (20211-76-1)	**Lanthanum Chloride** M. W.: 245.27 (anhy.) Assay (Trace metal basis) 99.9%	**100 gm** **500 gm**
RE1565 $LaCl_3.XH_2O$ (20211-76-1)	**Lanthanum Chloride** M. W.: 245.27 (anhy.) Assay (Trace metal basis) 99.99%	**100 gm** **500 gm**
RE1570 $LaCl_3.XH_2O$ (20211-76-1)	**Lanthanum Chloride** M. W.: 245.27 (anhy.) Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE1585 $LaFa_3$ (13709-38-1)	**Lanthanum Fluoride** M. W.: 195.91 Assay (Trace metal basis) 99.9%	**100 gm** **500 gm**
RE1590 $LaFa_3$ (13709-38-1)	**Lanthanum Fluoride** M. W.: 195.91 Assay (Trace metal basis) 99.99%	**100 gm** **500 gm**
RE1595 $LaFa_3$ (13709-38-1)	**Lanthanum Fluoride** M. W.: 195.91 Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**

Product Code	Product Name	Packing
RE1610 $La(OH)_3$ (14507-19-8)	**Lanthanum Hydroxide** M. W.: 189.93 Assay (Trace metal basis) 99.9%	**100 gm** **500 gm**
RE1615 $La(OH)_3$ (14507-19-8)	**Lanthanum Hydroxide** M. W.: 189.93 Assay (Trace metal basis) 99.99%	**100 gm**
RE1620 $La(OH)_3$ (14507-19-8)	**Lanthanum Hydroxide** M. W.: 189.93 Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE1630 $La(NO_3)_3.XH_2O$ (100587-94-8)	**Lanthanum Nitrate** M. W.: 324.92 Assay (Trace metal basis) 99.0%	**100 gm** **500 gm**
RE1635 $La(NO_3)_3.XH_2O$ (100587-94-8)	**Lanthanum Nitrate** M. W.: 324.92 Assay (Trace metal basis) 99.9%	**100 gm** **500 gm**
RE1640 $La(NO_3)_3.XH_2O$ (100587-94-8)	**Lanthanum Nitrate** M. W.: 324.92 Assay (Trace metal basis) 99.99%	**100 gm** **500 gm**
RE1645 $La(NO_3)_3.XH_2O$ (100587-94-8)	**Lanthanum Nitrate** M. W.: 324.92 Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE1685 La_2O_3 (1312-81-8)	**Lanthanum Oxide** M. W.: 325.82 Assay (Trace metal basis) 99.9%	**100 gm** **500 gm**
RE1690 La_2O_3 (1312-81-8)	**Lanthanum Oxide** M. W.: 325.82 Assay (Trace metal basis) 99.99%	**100 gm** **1 kg**
RE1700 La_2O_3 (1312-81-8)	**Lanthanum Oxide** M. W.: 325.82 Assay (Trace metal basis) 99.999%	**100 gm** **500 gm**
RE1715 $La_2(SO_4)_3.XH_2O$ (57804-25-8)	**Lanthanum Sulphate** M. W.: 566.00 (anhy.) Assay (Trace metal basis) 99.9%	**100 gm** **500 gm**
RE1720 $La_2(SO_4)_3.XH_2O$ (57804-25-8)	**Lanthanum Sulphate** M. W.: 566.00 (anhy.) Assay (Trace metal basis) 99.99%	**100 gm** **500 gm**
RE1725 $La_2(SO_4)_3.XH_2O$ (57804-25-8)	**Lanthanum Sulphate** M. W.: 566.00 (anhy.) Assay (Trace metal basis) 99.999%	**25 gm** **100 gm** **500 gm**



Rare Earth Metals

71 Lutetium
Lu
174.97
$[Xe]4f^{14}5d^{1}6s^{2}$

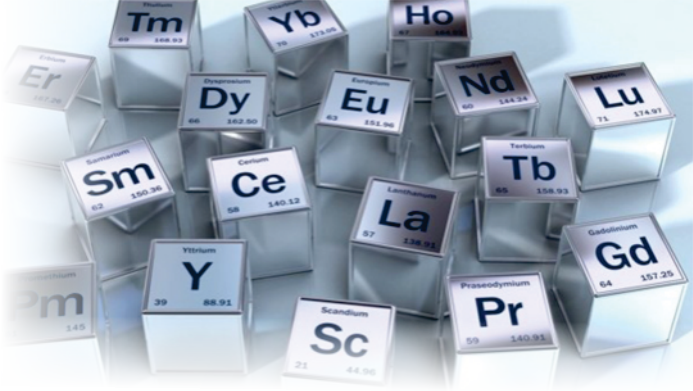
Lutetium

Lutetium, atomic no.: 71, symbol as Lu, weight at 174.97, is the last member of the rare earth series. Unlike most rare earths it lacks a magnetic moment. It also has the smallest metallic radius of any rare earth. It is perhaps the least naturally abundant of the Lanthanides. It is the ideal host for x-ray phosphors because it produces the densest known white material, Lutetium Tantalate ($LuTaO_4$). It is utilized as a dopant in matching lattice parameters of certain substrate garnet crystals.

Product Code	Product Name	Packing
RE1735 Lu (7439-94-3)	**Lutetium** Metal Ingot M. W.: 174.97 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm** **25 gm**
RE1740 Lu (7439-94-3)	**Lutetium** Metal Lump (1cm) M. W.: 174.97 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE1745 Lu (7439-94-3)	**Lutetium** Metal Wire (0.1mm) M. W.: 174.97 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE1750 Lu (7439-94-3)	**Lutetium** Metal Rod (5mmx30cm) M. W.: 174.97 Assay (Trace metal basis) 99.99%	**1 PC**
RE1755 Lu (7439-94-3)	**Lutetium** Metal Foil (0.25mmx40 cm) M. W.: 174.97 Assay (Trace metal basis) 99.99%	**1 PC**
RE1760 Lu (7439-94-3)	**Lutetium** Metal Foil (0.50mmx40 cm) M. W.: 174.97 Assay (Trace metal basis) 99.99%	**1 PC**
RE1765 Lu (7439-94-3)	**Lutetium** Metal SLAB (1cmx40cm) M. W.: 174.97 Assay (Trace metal basis) 99.99%	**1 PC**
RE1770 Lu (7439-94-3)	**Lutetium** Metal Disc (0.1mmx35cm) M. W.: 174.97 Assay (Trace metal basis) 99.99%	**1 PC**
RE1780 $Lu(O_2C_2H_3)_3.xH_2O$ (207500-05-8)	**Lutetium** (III) **Acetate** M. W.: 352.11 (Anhy.) Assay (Trace metal basis) 99.9%	**1 gm** **5 gm**
RE1785 $Lu(O_2C_2H_3)_3.xH_2O$ (207500-05-8)	**Lutetium** (III) **Acetate** M. W.: 352.11 (Anhy.) Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE1790 $Lu(O_2C_2H_3)_3.xH_2O$ (207500-05-8)	**Lutetium** (III) **Acetate** M. W.: 352.11 (Anhy.) Assay (Trace metal basis) 99.999%	**1 gm** **5 gm**

Product Code	Product Name	Packing
RE1795 $Lu(O_2C_2H_3)_3.xH_2O$ (207500-05-8)	**Lutetium** (III) **Acetate** M. W.: 352.11 (Anhy.) Assay (Trace metal basis) 99.9999%	**1 gm** **5 gm**
RE1805 $Lu_2(CO_3)_3.xH_2O$ (64360-99-2)	**Lutetium** (III) **Carbonate** M. W.: 529.97 (Anhy.) Assay (Trace metal basis) 99.9%	**1 gm** **5 gm**
RE1810 $Lu_2(CO_3)_3.xH_2O$ (64360-99-2)	**Lutetium** (III) **Carbonate** M. W.: 529.97 (Anhy.) Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE1815 $Lu_2(CO_3)_3.xH_2O$ (64360-99-2)	**Lutetium** (III) **Carbonate** M. W.: 529.97 (Anhy.) Assay (Trace metal basis) 99.999%	**1 gm** **5 gm**
RE1820 $Lu_2(CO_3)_3.xH_2O$ (64360-99-2)	**Lutetium** (III) **Carbonate** M. W.: 529.97 (Anhy.) Assay (Trace metal basis) 99.9999%	**1 gm** **5 gm**
RE1830 $LuCl_3.6H_2O$ (15230-79-2)	**Lutetium** (III) **Chloride** M. W.: 389.42 Assay (Trace metal basis) 99.9%	**1 gm** **5 gm**
RE1835 $LuCl_3.6H_2O$ (15230-79-2)	**Lutetium** (III) **Chloride** M. W.: 389.42 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE1840 $LuCl_3.6H_2O$ (15230-79-2)	**Lutetium** (III) **Chloride** M. W.: 389.42 Assay (Trace metal basis) 99.999%	**1 gm** **5 gm**
RE1845 $LuCl_3.6H_2O$ (15230-79-2)	**Lutetium** (III) **Chloride** M. W.: 389.42 Assay (Trace metal basis) 99.9999%	**1 gm** **5 gm**
RE1855 $Lu(NO_3)_3.xH_2O$ (100641-16-5)	**Lutetium** (III) **Nitrate** M. W.: 360.98 (Anhy.) Assay (Trace metal basis) 99.9%	**1 gm** **5 gm** **25 gm**
RE1860 $Lu(NO_3)_3.xH_2O$ (100641-16-5)	**Lutetium** (III) **Nitrate** M. W.: 360.98 (Anhy.) Assay (Trace metal basis) 99.99%	**2 gm** **10 gm**

Rare Earth Metals



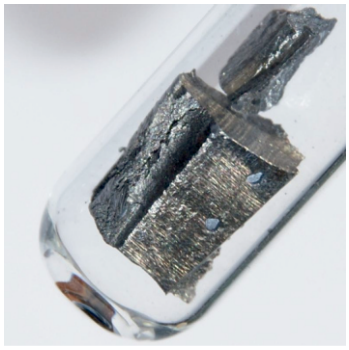
Product Code	Product Name	Packing
RE1865 $Lu(NO_3)_3.xH_2O$ (100641-16-5)	**Lutetium** (III) **Nitrate** M. W.: 360.98 (Anhy.) Assay (Trace metal basis) 99.999%	**5 gm**
RE1870 $Lu(NO_3)_3.xH_2O$ (100641-16-5)	**Lutetium** (III) **Nitrate** M. W.: 360.98 (Anhy.) Assay (Trace metal basis) 99.9999%	**1 gm** **5 gm**
RE1880 Lu_2O_3 (12032-20-1)	**Lutetium** (III) **Oxide** M. W.: 397.94 Assay (Trace metal basis) 99.9%	**1 gm** **5 gm** **25 gm**
RE1885 Lu_2O_3 (12032-20-1)	**Lutetium** (III) **Oxide** M. W.: 397.94 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm** **25 gm**
RE1890 Lu_2O_3 (12032-20-1)	**Lutetium** (III) **Oxide** M. W.: 397.94 Assay (Trace metal basis) 99.999%	**1 gm** **5 gm**

Product Code	Product Name	Packing
RE1895 Lu_2O_3 (12032-20-1)	**Lutetium** (III) **Oxide** M. W.: 397.94 Assay (Trace metal basis) 99.9999%	**1 gm** **5 gm**
RE1905 $Lu_2(SO_4)_3.8H_2O$ (13473-77-3)	**Lutetium** (III) **Sulphate** M. W.: 782.24 Assay (Trace metal basis) 99.9%	**1 gm** **5 gm**
RE1910 $Lu_2(SO_4)_3.8H_2O$ (13473-77-3)	**Lutetium** (III) **Sulphate** M. W.: 782.24 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE1915 $Lu_2(SO_4)_3.8H_2O$ (13473-77-3)	**Lutetium** (III) **Sulphate** M. W.: 782.24 Assay (Trace metal basis) 99.999%	**1 gm** **5 gm**
RE1920 $Lu_2(SO_4)_3.8H_2O$ (13473-77-3)	**Lutetium** (III) **Sulphate** M. W.: 782.24 Assay (Trace metal basis) 99.9999%	**1 gm** **5 gm**

Neodymium

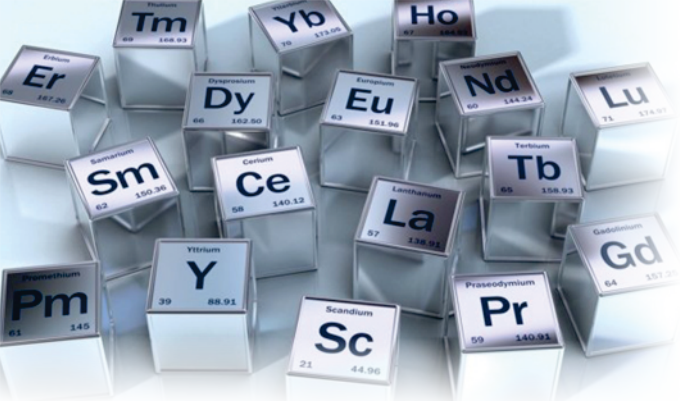
Neodymium, atomic no.: 60, symbol as Nd, weight at 144.24, is the most abundant of the rare earths after Cerium and Lanthanum. It shows similar characteristics to the other trivalent Lanthanides.

Primary applications include lasers, glass coloring and tinting, dielectrics and, most importantly, as the fundamental basis for Neodymium-Iron-Boron ($Nd_2Fe_{14}B$) permanent magnets.



Product Code	Product Name	Packing
RE1930 Nd (7440-00-8)	**Neodymium** Metal Ingot M. W.: 144.24 Assay (Trace metal basis) 99.99%	**25 gm**
RE1935 Nd (7440-00-8)	**Neodymium** Metal Lump M. W.: 144.24 Assay (Trace metal basis) 99.99%	**25 gm**
RE1940 Nd (7440-00-8)	**Neodymium** Metal Powder M. W.: 144.24 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE1945 Nd (7440-00-8)	**Neodymium** Metal Wire 0.1mm M. W.: 144.24 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE1950 Nd (7440-00-8)	**Neodymium** Metal Rod 5mmx30cm M. W.: 144.24 Assay (Trace metal basis) 99.99%	**1 PC**

Product Code	Product Name	Packing
RE1955 Nd (7440-00-8)	**Neodymium** Metal Foil 0.25 mmx40cm M. W.: 144.24 Assay (Trace metal basis) 99.99%	**1 PC**
RE1960 Nd (7440-00-8)	**Neodymium** Metal Foil 0.50 mmx40cm M. W.: 144.24 Assay (Trace metal basis) 99.99%	**1 PC**
RE1965 Nd (7440-00-8)	**Neodymium** Metal SLAB 1cmx40cm M. W.: 144.24 Assay (Trace metal basis) 99.99%	**1 PC**
RE1970 Nd (7440-00-8)	**Neodymium** Metal Disc 0.1mmxdia 35cm M. W.: 144.24 Assay (Trace metal basis) 99.99%	**1 PC**
RE1985 $Nd(O_2C_2H_3)_3.xH_2O$ (334869-71-5)	**Neodymium** (III) **Acetate** M. W.: 321.38 (Anhy.) Assay (Trace metal basis) 99.9%	**50 gm** **250 gm**

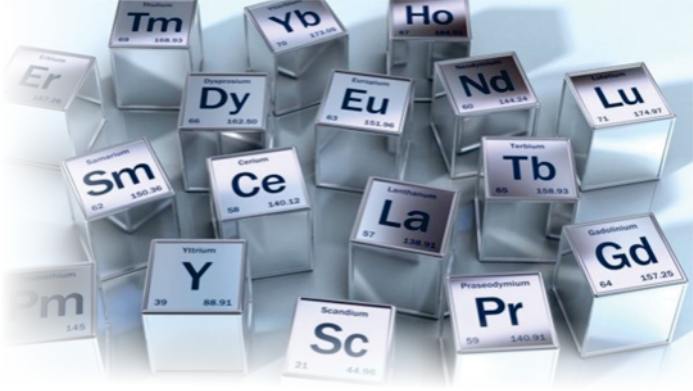


RARE EARTH METALS

Product Code	Product Name	Packing
RE1990 $Nd(O_2C_2H_3)_3.xH_2O$ (334869-71-5)	**Neodymium (III) Acetate** M. W.: 321.38 (Anhy.) Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE1995 $Nd(O_2C_2H_3)_3.xH_2O$ (334869-71-5)	**Neodymium (III) Acetate** M. W.: 321.38 (Anhy.) Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE2010 $Nd_2(CO_3)_3.xH_2O$ (38245-38-4)	**Neodymium (III) Carbonate** M. W.: 468.51 (Anhy.) Assay (Trace metal basis) 99.9%	**50 gm** **250 gm**
RE2015 $Nd_2(CO_3)_3.xH_2O$ (38245-38-4)	**Neodymium (III) Carbonate** M. W.: 468.51 (Anhy.) Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2020 $Nd_2(CO_3)_3.xH_2O$ (38245-38-4)	**Neodymium (III) Carbonate** M. W.: 468.51 (Anhy.) Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE2035 $NdCl_3.xH_2O$ (10024-93-8)	**Neodymium (III) Chloride** M. W.: 250.60 (Anhy.) Assay (Trace metal basis) 99.9%	**50 gm** **250 gm**
RE2040 $NdCl_3.xH_2O$ (10024-93-8)	**Neodymium (III) Chloride** M. W.: 250.60 (Anhy.) Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2045 $NdCl_3.xH_2O$ (10024-93-8)	**Neodymium (III) Chloride** M. W.: 250.60 (Anhy.) Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE2055 NdI_3 (13813-24-6)	**Neodymium (III) Iodide** M. W.: 524.95 Assay (Trace metal basis) 99.95%	**5 gm** **25 gm** **100 gm**
RE2070 $Nd(NO_3)_3.6H_2O$ (16454-60-7)	**Neodymium (III) Nitrate** M. W.: 438.35 Assay (Trace metal basis) 99.9%	**50 gm** **250 gm**

Product Code	Product Name	Packing
RE2075 $Nd(NO_3)_3.6H_2O$ (16454-60-7)	**Neodymium (III) Nitrate** M. W.: 438.35 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2080 $Nd(NO_3)_3.6H_2O$ (16454-60-7)	**Neodymium (III) Nitrate** M. W.: 438.35 Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE2090 Nd_2O_3 (1313-97-9)	**Neodymium (III) Oxide** M. W.: 336.48 Assay (Trace metal basis) 99%	**25 gm** **100 gm** **500 gm**
RE2095 Nd_2O_3 (1313-97-9)	**Neodymium (III) Oxide** M. W.: 336.48 Assay (Trace metal basis) 99.9%	**10 gm** **25 gm** **250 gm** **500 gm**
RE2100 Nd_2O_3 (1313-97-9)	**Neodymium (III) Oxide** M. W.: 336.48 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm** **1 kg**
RE2105 Nd_2O_3 (1313-97-9)	**Neodymium (III) Oxide** M. W.: 336.48 Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE2120 $Nd_2(SO_4)_3.8H_2O$ (13477-91-3)	**Neodymium (III) Sulphate** M. W.: 720.78 Assay (Trace metal basis) 99.9%	**25 gm** **100 gm**
RE2125 $Nd_2(SO_4)_3.8H_2O$ (13477-91-3)	**Neodymium (III) Sulphate** M. W.: 720.78 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2130 $Nd_2(SO_4)_3.8H_2O$ (13477-91-3)	**Neodymium (III) Sulphate** M. W.: 720.78 Assay (Trace metal basis) 99.999%	**2 gm** **10 gm**

Rare Earth Metals



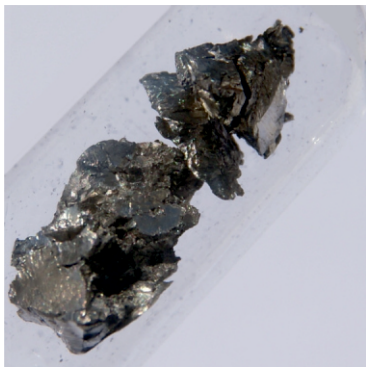
59 Praseodymium
Pr
140.91
$[Xe]4f^3 6s^2$

Praseodymium

Praseodymium, atomic no.:59, symbol as Pr, weight at 140.91, resembles the typical trivalent rare earths, however, it will exhibit a +4 state when stabilized in a zirconia host. The element is found in most all light rare earth derivatives.

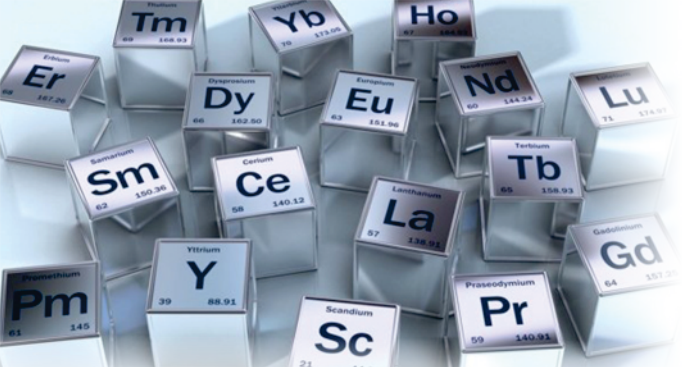
It is highly valued for ceramics as a bright yellow pigment in praseodymium doped zirconia because of its optimum reflectance at 560 nm.

Much research is being done on its optical properties for use in amplification of telecommunication systems, including as a doping agent in Fluoride fibers.



Product Code	Product Name	Packing
RE2140 (7440-10-0)	**Praseodymium** Metal **Ingot** Assay (Trace metal basis) 99.99%	**10 gm** **50 gm**
RE2145 (7440-10-0)	**Praseodymium** Metal **Lump** Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE2150 (7440-10-0)	**Praseodymium** Metal **Powder** 325 Mesh Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE2155 (7440-10-0)	**Praseodymium** Metal **Wire** 0.1mm Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE2160 (7440-10-0)	**Praseodymium** Metal **Rod** 5mmx30cm Assay (Trace metal basis) 99.99%	**1 PC**
RE2165 (7440-10-0)	**Praseodymium** Metal **Foil** 0.25 mmx40cm Assay (Trace metal basis) 99.99%	**1 PC**
RE2170 (7440-10-0)	**Praseodymium** Metal Foil 0.50 mmx40cm Assay (Trace metal basis) 99.99%	**1 PC**
RE2175 (7440-10-0)	**Praseodymium** Metal SLAB 1cmx40cm Assay (Trace metal basis) 99.99%	**1 PC**
Re2180 (7440-10-0)	**Praseodymium** Metal Disc 0.1mmxdia 35cm Assay (Trace metal basis) 99.99%	**1 PC**
RE2195 $Pr(O_2C_2H_3)_3.xH_2O$ (334869-74-8)	**Praseodymium Acetate** M. W.: 318.03 Assay (Trace metal basis) 99.9%	**25 gm** **100 gm**
RE2200 $Pr(O_2C_2H_3)_3.xH_2O$ (334869-74-8)	**Praseodymium Acetate** M. W.: 318.03 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2205 $Pr(O_2C_2H_3)_3.xH_2O$ (334869-74-8)	**Praseodymium Acetate** M. W.: 318.03 Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE2220 $Pr_2(CO_3)_3.8H_2O$ (14948-62-0)	**Praseodymium Carbonate** M. W.: 605.97 Assay (Trace metal basis) 99.9%	**25 gm** **100 gm**
RE2225 $Pr_2(CO_3)_3.8H_2O$ (14948-62-0)	**Praseodymium Carbonate** M. W.: 605.97 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2230 $Pr_2(CO_3)_3.8H_2O$ (14948-62-0)	**Praseodymium Carbonate** M. W.: 605.97 Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**

Product Code	Product Name	Packing
RE2245 $PrCl_3.xH_2O$ (19423-77-9)	**Praseodymium Chloride** M. W.: 247.27 Assay (Trace metal basis) 99.9%	**25 gm** **100 gm**
RE2250 $PrCl_3.xH_2O$ (19423-77-9)	**Praseodymium Chloride** M. W.: 247.27 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2255 $PrCl_3.xH_2O$ (19423-77-9)	**Praseodymium Chloride** M. W.: 247.27 Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE2270 PrF_3 (13709-46-1)	**Praseodymium Fluoride** M. W.: 197.90 Assay (Trace metal basis) 99.9%	**10 gm** **100 gm**
RE2275 PrF_3 (13709-46-1)	**Praseodymium Fluoride** M. W.: 197.90 Assay (Trace metal basis) 99.99%	**10 gm** **100 gm**
RE2280 PrF_3 (13709-46-1)	**Praseodymium Fluoride** M. W.: 197.90 Assay (Trace metal basis) 99.999%	**10 gm** **100 gm**
RE2300 $Pr(OH)_3.xH_2O$	**Praseodymium Hydroxide** M. W.: 191.90 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2305 $Pr(OH)_3.xH_2O$	**Praseodymium Hydroxide** M. W.: 191.90 Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE2320 $Pr(NO_3)_3.xH_2O$	**Praseodymium Nitrate** M. W.: 326.92 (Anhy.) Assay (Trace metal basis) 99.9%	**25 gm** **100 gm**
RE2325 $Pr(NO_3)_3.xH_2O$	**Praseodymium Nitrate** M. W.: 326.92 (Anhy.) Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2330 $Pr(NO_3)_3.xH_2O$	**Praseodymium Nitrate** M. W.: 326.92 (Anhy.) Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**



Rare Earth Metals

Product Code	Product Name	Packing
RE2345 $Pr_2(C_2O_4)_3.xH_2O$ (28877-86-3)	**Praseodymium Oxalate** M. W.: 545.87 (Anhy.) Assay (Trace metal basis) 99.9%	**25 gm**
RE2350 $Pr_2(C_2O_4)_3.xH_2O$ (28877-86-3)	**Praseodymium Oxalate** M. W.: 545.87 (Anhy.) Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE2355 $Pr_2(C_2O_4)_3.xH_2O$ (28877-86-3)	**Praseodymium Oxalate** M. W.: 545.87 (Anhy.) Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE2370 Pr_6O_{11} (12037-29-5)	**Praseodymium Oxide** M. W.: 1021.43 Assay (Trace metal basis) 99.9%	**10 gm** **25 gm** **100 gm**

Product Code	Product Name	Packing
RE2375 Pr_6O_{11} (12037-29-5)	**Praseodymium Oxide** M. W.: 1021.43 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2380 Pr_6O_{11} (12037-29-5)	**Praseodymium Oxide** M. W.: 1021.43 Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE2395 $Pr_2(SO_4)_3.8H_2O$ (13510-41-3)	**Praseodymium Sulphate** M. W.: 714.12 Assay (Trace metal basis) 99.9%	**25 gm** **100 gm** **500 gm**
RE2400 $Pr_2(SO_4)_3.8H_2O$ (13510-41-3)	**Praseodymium Sulphate** M. W.: 714.12 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**

62 Samarium
Sm
150.36
$[Xe]4f^6 6s^2$

Samarium

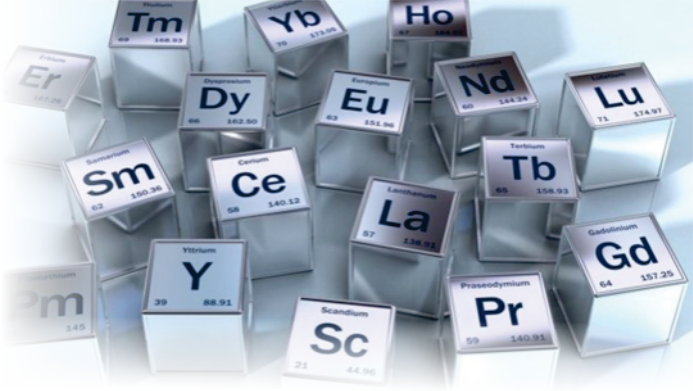
Samarium, atomic no.: 62, symbol as Sm, weight at 150.36, is primarily utilized in the production of Samarium-Cobalt (Sm_2Co_{17}) permanent magnets. It is also used in laser applications and for its dielectric properties.

Because of its weak spectral absorption band Samarium is used in the filter glass on Nd:YAG solid state lasers to surround the laser rod to improve efficiency by absorbing stray emissions.

Product Code	Product Name	Packing
RE2410 (7440-19-9)	**Samarium** Metal Ingot Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2415 (7440-19-9)	**Samarium** Metal Lump (1 cm) Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2420 (7440-19-9)	**Samarium** Metal Powder 325 mesh Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE2425 (7440-19-9)	**Samarium** Metal Wire (0.1 mm) Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE2430 (7440-19-9)	**Samarium** Metal Rod (5mmx30cm) Assay (Trace metal basis) 99.99%	**1 Pc**
RE2435 (7440-19-9)	**Samarium** Metal Foil (0.25mmx40cm) Assay (Trace metal basis) 99.99%	**1 Pc**
RE2440 (7440-19-9)	**Samarium** Metal Foil (0.50mmx40cm) Assay (Trace metal basis) 99.99%	**1 Pc**
RE2445 (7440-19-9)	**Samarium** Metal Slab (1cmx40cm) Assay (Trace metal basis) 99.99%	**1 Pc**

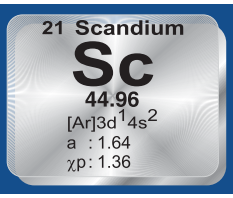
Product Code	Product Name	Packing
RE2450 (7440-19-9)	**Samarium** Metal Disc (0.1mmxdia 35cm) Assay (Trace metal basis) 99.99%	**1 Pc**
RE2465 $SmC_6H_9O_6.XH_2O$ (100587-91-5)	**Samarium (III) Acetate** M .W.: 327.49 (Anhy.) Assay (Trace metal basis) 99.9%	**25 gm** **100 gm**
RE2470 $SmC_6H_9O_6.XH_2O$ (100587-91-5)	**Samarium (III) Acetate** M .W.: 327.49 (Anhy.) Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE2480 $Sm_2(CO_3)_3.XH_2O$ (38245-37-3)	**Samarium (III) Carbonate** M. W.: 480.73 (Anhy.) Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2485 $Sm_2(CO_3)_3.XH_2O$ (38245-37-3)	**Samarium (III) Carbonate** M. W.: 480.73 (Anhy.) Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE2490 $Sm_2(CO_3)_3.XH_2O$ (38245-37-3)	**Samarium (III) Carbonate** M. W.: 480.73 (Anhy.) Assay (Trace metal basis) 99.9999%	**5 gm** **25 gm**

Rare Earth Metals



Product Code	Product Name	Packing
RE2500 $SmCl_3.XH_2O$ (10361-82-7)	**Samarium (III) Chloride** M. W.: 256.71 (Anhy.) Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2505 $SmCl_3.XH_2O$ (10361-82-7)	**Samarium (III) Chloride** M. W.: 256.71 (Anhy.) Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE2510 $SmCl_3.XH_2O$ (10361-82-7)	**Samarium (III) Chloride** M. W.: 256.71 (Anhy.) Assay (Trace metal basis) 99.9999%	**5 gm** **25 gm**
RE2520 $Sm(NO_3)_3.6H_2O$ (13759-83-6)	**Samarium (III) Nitrate** M. W.: 444.47 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2525 $Sm(NO_3)_3.6H_2O$ (13759-83-6)	**Samarium (III) Nitrate** M. W.: 444.47 Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE2530 $Sm(NO_3)_3.6H_2O$ (13759-83-6)	**Samarium (III) Nitrate** M. W.: 444.47 Assay (Trace metal basis) 99.9999%	**5 gm** **25 gm**

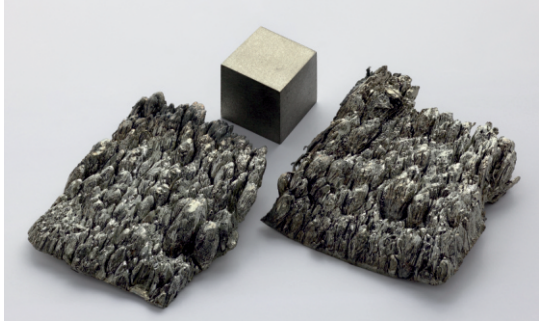
Product Code	Product Name	Packing
RE2545 Sm_2O_3 (12060-58-1)	**Samarium (III) Oxide** M. W.: 348.70 Assay (Trace metal basis) 99.9%	**10 gm** **25 gm** **100 gm** **500 gm**
RE2550 Sm_2O_3 (12060-58-1)	**Samarium (III) Oxide** M. W.: 348.70 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm** **500 gm**
RE2555 Sm_2O_3 (12060-58-1)	**Samarium (III) Oxide** M. W.: 348.70 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm** **100 gm**
RE2565 $Sm_2(SO_4)_3.8H_2O$ (13465-58-2)	**Samarium (III) Sulphate** M. W.: 733.03 Assay Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE2570 $Sm_2(SO_4)_3.8H_2O$ (13465-58-2)	**Samarium (III) Sulphate** M. W.: 733.03 Assay (Trace metal basis) 99.999%	**25 gm** **100 gm**
RE2575 $Sm_2(SO_4)_3.8H_2O$ (13465-58-2)	**Samarium (III) Sulphate** M. W.: 733.03 Assay (Trace metal basis) 99.9999%	**5 gm** **25 gm**



Scandium

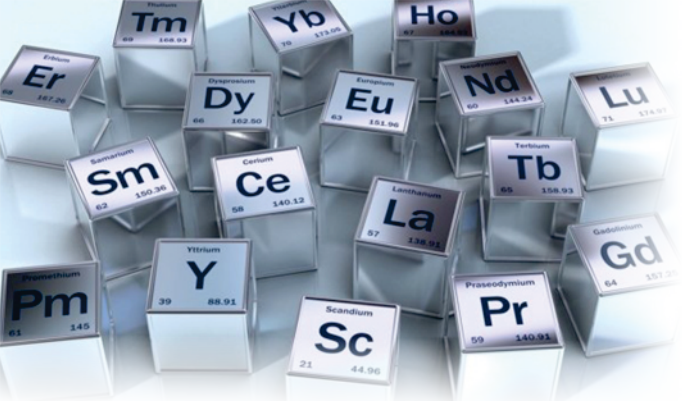
Scandium, atomic no.: 21, symbol as Sc, weight at 44.96, is mainly used in ceramics, lasers, phosphors and crystal. Scandium Oxide is suitable for the high index component of UV, AR and bandpass coatings due to its high index value, transparency, and layer hardness make high damage thresholds have been reported for combinations with Silicon Dioxide or Magnesium Fluoride for use in AR.

Scandium Metal are widely used in making Scandium-Aluminium alloy.



Product Code	Product Name	Packing
RE2585 (7440-20-2)	**Scandium Metal Ingot** Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE2590 (7440-20-2)	**Scandium** Metal Lump (1cm) Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE2595 (7440-20-2)	**Scandium** Metal Powder 325 mesh Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE2600 (7440-20-2)	**Scandium** Metal Wire 0.1mm Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE2605 (7440-20-2)	**Scandium** Metal Rod 5mmx30cm Assay (Trace metal basis) 99.99%	**1 PC**

Product Code	Product Name	Packing
RE2610 (7440-20-2)	**Scandium** Metal Foil 0.25 mmx40cm Assay (Trace metal basis) 99.99%	**1 PC**
RE2615 (7440-20-2)	**Scandium** Metal Foil 0.50 mmx40cm Assay (Trace metal basis) 99.99%	**1 PC**
RE2620 (7440-20-2)	**Scandium** Metal SLAB 1cmx40cm Assay (Trace metal basis) 99.99%	**1 PC**
RE2625 (7440-20-2)	**Scandium** Metal Disc 0.1mmxdia 35cm Assay (Trace metal basis) 99.99%	**1 PC**
RE2635 $Sc(O_2C_2H_3)_3.XH_2O$ (304675-64-7)	**Scandium Acetate** M. W.: 222.10 (Anhy.) Assay (Trace metal basis) 99.9%	**1 gm** **5 gm**

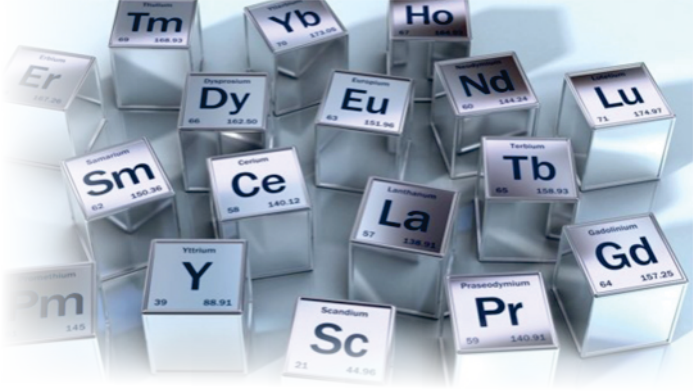


RARE EARTH METALS

Product Code	Product Name	Packing
RE2640 $Sc(O_2C_2H_3)_3.XH_2O$ (304675-64-7)	**Scandium Acetate** M. W.: 222.10 (Anhy.) Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE2645 $Sc(O_2C_2H_3)_3.XH_2O$ (304675-64-7)	**Scandium Acetate** M. W.: 222.10 (Anhy.) Assay (Trace metal basis) 99.999%	**1 gm** **5 gm**
RE2650 $Sc(O_2C_2H_3)_3.XH_2O$ (304675-64-7)	**Scandium Acetate** M. W.: 222.10 (Anhy.) Assay (Trace metal basis) 99.9999%	**1 gm** **5 gm**
RE2665 $Sc_2(CO_3)_3.XH_2O$	**Scandium Carbonate** M. W.: 269.94 (Anhy.) Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE2670 $Sc_2(CO_3)_3.XH_2O$	**Scandium Carbonate** M. W.: 269.94 (Anhy.) Assay (Trace metal basis) 99.999%	**1 gm** **5 gm**
RE2680 $ScCl_3.6H_2O$ (20662-14-0)	**Scandium Chloride** M. W.: 259.41 Assay (Trace metal basis) 99.9%	**1 gm** **5 gm**
RE2685 $ScCl_3.6H_2O$ (20662-14-0)	**Scandium Chloride** M. W.: 259.41 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE2690 $ScCl_3.6H_2O$ (20662-14-0)	**Scandium Chloride** M. W.: 259.41 Assay (Trace metal basis) 99.999%	**1 gm** **5 gm**
RE2695 $ScCl_3.6H_2O$ (20662-14-0)	**Scandium Chloride** M. W.: 259.41 Assay (Trace metal basis) 99.9999%	**1 gm** **5 gm**
RE2705 ScF_3 (13709-47-2)	**Scandium Fluoride** M. W.: 101.95 Assay (Trace metal basis) 99.9%	**1 gm** **10 gm**
RE2710 ScF_3 (13709-47-2)	**Scandium Fluoride** M. W.: 101.95 Assay (Trace metal basis) 99.99%	**1 gm** **10 gm**
RE2715 ScF_3 (13709-47-2)	**Scandium Fluoride** M. W.: 101.95 Assay (Trace metal basis) 99.999%	**5 gm**
RE2725 $Sc(OH)_3.xH_2O$ (17674-34-9)	**Scandium Hydroxide** M. W.: 95.95 (Anhy.) Assay (Trace metal basis) 99.9%	**5 gm**
RE2730 $Sc(OH)_3.xH_2O$ (17674-34-9)	**Scandium Hydroxide** M. W.: 95.95 (Anhy.) Assay (Trace metal basis) 99.99%	**5 gm**
RE2735 $Sc(OH)_3.xH_2O$ (17674-34-9)	**Scandium Hydroxide** M. W.: 95.95 (Anhy.) Assay (Trace metal basis) 99.999%	**5 gm**

Product Code	Product Name	Packing
RE2745 ScI_3 (14474-33-0)	**Scandium Iodide** M. W.: 425.67 Assay (Trace metal basis) 99.95%	**1 gm** **5 gm**
RE2755 $Sc(NO_3)_3.XH_2O$ (107552-14-7)	**Scandium Nitrate** M. W.: 230.97 (Anhy.) Assay (Trace metal basis) 99.9%	**1 gm** **5 gm**
RE2760 $Sc(NO_3)_3.XH_2O$ (107552-14-7)	**Scandium Nitrate** M. W.: 230.97 (Anhy.) Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE2765 $Sc(NO_3)_3.XH_2O$ (107552-14-7)	**Scandium Nitrate** M. W.: 230.97 (Anhy.) Assay (Trace metal basis) 99.999%	**1 gm** **5 gm**
RE2770 $Sc(NO_3)_3.XH_2O$ (107552-14-7)	**Scandium Nitrate** M. W.: 230.97 (Anhy.) Assay (Trace metal basis) 99.9999%	**1 gm** **5 gm**
RE2785 $Sc_2(C_2O_4)_3.XH_2O$ (17926-77-1)	**Scandium Oxalate** M. W.: 353.97 (Anhy) Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE2790 $Sc_2(C_2O_4)_3.XH_2O$ (17926-77-1)	**Scandium Oxalate** M. W.: 353.97 (Anhy) Assay (Trace metal basis) 99.999%	**1 gm** **5 gm**
RE2795 $Sc_2(C_2O_4)_3.XH_2O$ (17926-77-1)	**Scandium Oxalate** M. W.: 353.97 (Anhy) Assay (Trace metal basis) 99.9999%	**1 gm** **5 gm**
RE2805 Sc_2O_3 (12060-08-1)	**Scandium Oxide** M. W.: 137.91 Assay (Trace metal basis) 99.9%	**1 gm** **5 gm**
RE2810 Sc_2O_3 (12060-08-1)	**Scandium Oxide** M. W.: 137.91 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE2815 Sc_2O_3 (12060-08-1)	**Scandium Oxide** M. W.: 137.91 Assay (Trace metal basis) 99.999%	**1 gm** **5 gm**
RE2820 Sc_2O_3 (12060-08-1)	**Scandium Oxide** M. W.: 137.91 Assay (Trace metal basis) 99.9999%	**1 gm** **5 gm**
RE2830 $Sc_2(SO_4)_3.8H_2O$ (52788-54-2)	**Scandium Sulphate** M. W.: 522.22 Assay (Trace metal basis) 99.9%	**1 gm** **10 gm**
RE2835 $Sc_2(SO_4)_3.8H_2O$ (52788-54-2)	**Scandium Sulphate** M. W.: 522.22 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE2840 $Sc_2(SO_4)_3.8H_2O$ (52788-54-2)	**Scandium Sulphate** M. W.: 522.22 Assay (Trace metal basis) 99.999%	**1 gm** **5 gm**

Rare Earth Metals



65 Terbium
Tb
158.93
$[Xe]4f^9 6s^2$

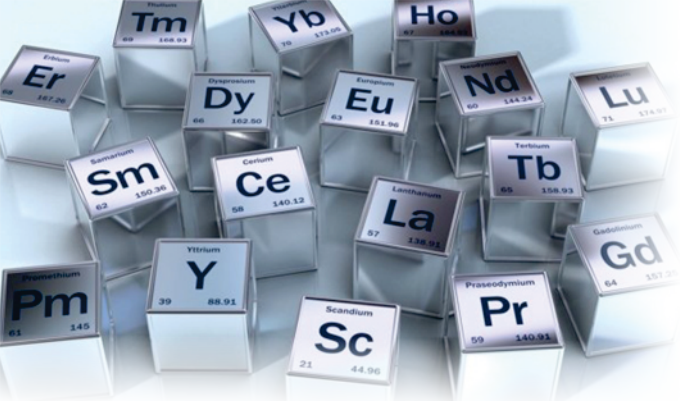
Terbium

Terbium, atomic no.: 65, symbol as Tb, weight at 158.93, is primarily used in phosphors, particularly in fluorescent lamps and as the high intensity green emitter used in projection televisions, such as the Yttrium-Aluminum-Garnet (Tb:YAG) variety.

Terbium responds efficiently to x-ray excitation and is, therefore, used as an x-ray phosphor. Terbium alloys are also used in magneto-optic recording films, such as TbFeCo

Product Code	Product Name	Packing
RE2850 Tb (7440-27-9)	**Terbium** Metal **Ingot** M. W. : 158.93 Assay (Trace metal basis) 99.99%	**2 gm** **10 gm**
RE2855 Tb (7440-27-9)	**Terbium** Metal **Lump** (1cm) M. W. : 158.93 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE2860 Tb (7440-27-9)	**Terbium** Metal **Powder** 325 mesh M. W. : 158.93 Assay (Trace metal basis) 99.9%	**1 gm** **5 gm**
RE2862 Tb (7440-27-9)	**Terbium** Metal **Wire** (0.1 mm) M. W. : 158.93	**1 gm** **5 gm**
RE2865 Tb (7440-27-9)	**Terbium** Metal **Rod** (5mmx30cm) M. W. : 158.93 Assay (Trace metal basis) 99.99%	**1 PC**
RE2870 Tb (7440-27-9)	**Terbium** Metal **Foil** (0.25mmx40cm) M. W. : 158.93 Assay (Trace metal basis) 99.99%	**1 PC**
RE2875 Tb (7440-27-9)	**Terbium** Metal **Foil** (0.50mmx40cm) M. W. : 158.93 Assay (Trace metal basis) 99.99%	**1 PC**
RE2880 Tb (7440-27-9)	**Terbium** Metal **SLAB** (1cmx40cm) M. W. : 158.93 Assay (Trace metal basis) 99.99%	**1 PC**
RE2885 Tb (7440-27-9)	**Terbium** Metal **Disc** (0.1mmx Dia 35cm) M. W. : 158.93 Assay (Trace metal basis) 99.99%	**1 PC**
RE2900 $Tb(CH_3CO_2)_3.xH_2O$ (100587-92-6)	**Terbium Acetate** M. W.: 336.06 (Anhy.) Assay (Trace metal basis) 99.9%	**10 gm** **50 gm**
RE2905 $Tb(CH_3CO_2)_3.xH_2O$ (100587-92-6)	**Terbium Acetate** M. W.: 336.06 (Anhy.) Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE2910 $Tb(CH_3CO_2)_3.xH_2O$ (100587-92-6)	**Terbium Acetate** M. W.: 336.06 (Anhy.) Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE2925 $Tb_2(CO_3)_3.xH_2O$ (100587-96-0)	**Terbium Carbonate** M. W.: 497.88 (Anhy.) Assay (Trace metal basis) 99.9%	**10 gm** **50 gm**
RE2930 $Tb_2(CO_3)_3.xH_2O$ (100587-96-0)	**Terbium Carbonate** M. W.: 497.88 (Anhy.) Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**

Product Code	Product Name	Packing
RE2935 $Tb_2(CO_3)_3.xH_2O$ (100587-96-0)	**Terbium Carbonate** M. W.: 497.88 (Anhy.) Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE2950 $TbCl_3.6H_2O$ (13798-24-8)	**Terbium Chloride** M. W.: 373.38 Assay (Trace metal basis) 99.9%	**10 gm** **50 gm**
RE2955 $TbCl_3.6H_2O$ (13798-24-8)	**Terbium Chloride** M. W.: 373.38 Assay (Trace metal basis) 99.99%	**10 gm** **50 gm**
RE2960 $TbCl_3.6H_2O$ (13798-24-8)	**Terbium Chloride** M. W.: 373.38 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE2975 $Tb(NO_3)_3.5H_2O$ (57584-27-7)	**Terbium Nitrate** M. W.: 435.02 Assay (Trace metal basis) 99.9%	**5 gm** **50 gm**
RE2980 $Tb(NO_3)_3.5H_2O$ (57584-27-7)	**Terbium Nitrate** M. W.: 435.02 Assay (Trace metal basis) 99.99%	**10 gm**
RE2985 $Tb(NO_3)_3.5H_2O$ (57584-27-7)	**Terbium Nitrate** M. W.: 435.02 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE3000 Tb_4O_7 (12037-01-3)	**Terbium Oxide** M. W.: 747.69 Assay (Trace metal basis) 99.9%	**1 gm** **5 gm** **10 gm** **50 gm** **250 gm** **1 kg**
RE3005 Tb_4O_7 (12037-01-3)	**Terbium Oxide** M. W.: 747.69 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm** **250 gm**
RE3010 Tb_4O_7 (12037-01-3)	**Terbium Oxide** M. W.: 747.69 Assay (Trace metal basis) 99.999%	**1 gm** **5 gm** **25 gm** **250 gm**
RE3025 $Tb_2(SO_4)_3.8H_2O$ (13842-67-6)	**Terbium Sulphate** M. W.: 750.16 Assay (Trace metal basis) 99.9%	**5 gm** **50 gm**
RE3030 $Tb_2(SO_4)_3.8H_2O$ (13842-67-6)	**Terbium Sulphate** M. W.: 750.16 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE3035 $Tb_2(SO_4)_3.8H_2O$ (13842-67-6)	**Terbium Sulphate** M. W.: 750.16 Assay (Trace metal basis) 99.999%	**10 gm** **50 gm**



Rare Earth Metals

69 Thulium
Tm
168.93
$[Xe]4f^{13}6s^2$

Thulium

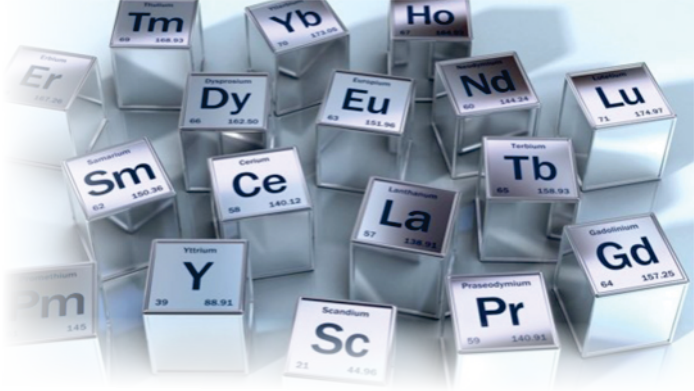
Thulium, atomic no.: 69, symbol as Tm, weight at 168.93, products are mainly used in making crystal and lasers.

An important application of the thulium in the Medicine area, and relatively independent of its high cost, is the production of portable X-ray sources. These sources are available for about one year, as tools in medical and dental diagnosis, as well as to detect defects in mechanical and electronic inaccessible components.

Product Code	Product Name	Packing
RE3045 Tm (7440-30-4)	**Thulium** Metal Ingot M. W.: 168.93 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE3050 Tm (7440-30-4)	**Thulium** Metal Lump (1 cm) M. W.: 168.93 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE3055 Tm (7440-30-4)	**Thulium** Metal Powder 325 mesh M. W.: 168.93 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE3060 Tm (7440-30-4)	**Thulium** Metal Wire (0.1mm) M. W.: 168.93 Assay (Trace metal basis) 99.99%	**5 gm**
RE3065 Tm (7440-30-4)	**Thulium** Metal Rod (5cmx30cm) M. W.: 168.93 Assay (Trace metal basis) 99.99%	**1 PC**
RE3070 Tm (7440-30-4)	**Thulium** Metal Foil (0.25mmx40cm) M. W.: 168.93 Assay (Trace metal basis) 99.99%	**1 PC**
RE3075 Tm (7440-30-4)	**Thulium** Metal Foil (0.50mmx40cm) M. W.: 168.93 Assay (Trace metal basis) 99.99%	**1 PC**
RE3080 Tm (7440-30-4)	**Thulium** Metal SLAB (1cmx40cm) M. W.: 168.93 Assay (Trace metal basis) 99.99%	**1 PC**
RE3085 Tm (7440-30-4)	**Thulium** Metal Disc (0.1mmxdia35cm) M. W.: 168.93 Assay (Trace metal basis) 99.99%	**1 PC**
RE3095 $Tm(CH_3CO_2)_3.xH_2O$ (207738-11-2)	**Thulium** (III) **Acetate** M. W.: 346.07 (Anhy.) Assay (Trace metal basis) 99.9%	**1 gm** **5 gm** **100 gm**
RE3100 $Tm(CH_3CO_2)_3.xH_2O$ (207738-11-2)	**Thulium** (III) **Acetate** M. W.: 346.07 (Anhy.) Assay(Trace metal basis) 99.99%	**5 gm** **25 gm**

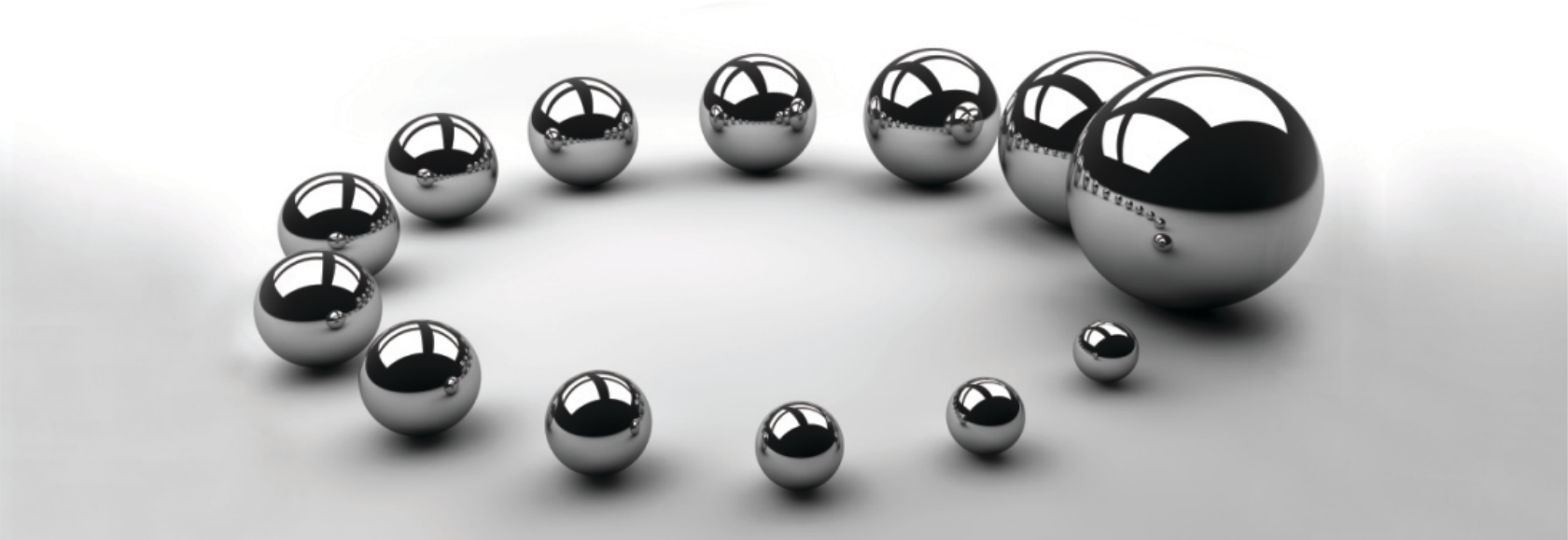
Product Code	Product Name	Packing
RE3105 $Tm(CH_3CO_2)_3.xH_2O$ (207738-11-2)	**Thulium** (III) **Acetate** M. W.: 346.07 (Anhy.) Assay(Trace metal basis) 99.999%	**1 gm** **25 gm**
RE3110 $Tm(CH_3CO_2)_3.xH_2O$ (207738-11-2)	**Thulium** (III) **Acetate** M. W.: 346.07 (Anhy.) Assay (Trace metal basis) 99.9999%	**1 gm** **25 gm**
RE3114 $Tm_2(CO_3)_3.xH_2O$ (87198-17-2)	**Thulium** (III) **Carbonate** M. W.: 517.90. (Anhy.) Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE3116 $Tm_2(CO_3)_3.xH_2O$ (87198-17-2)	**Thulium** (III) **Carbonate** M. W.: 517.90. (Anhy.) Assay (Trace metal basis) 99.999%	**1 gm** **25 gm**
RE3118 $Tm_2(CO_3)_3.xH_2O$ (87198-17-2)	**Thulium** (III) **Carbonate** M. W.: 517.90. (Anhy.) Assay (Trace metal basis) 99.9999%	**1 gm** **25 gm**
RE3120 $TmCl_3$ (13537-18-3)	**Thulium** (III) **Chloride** M. W.: 275.29 Assay (Trace metal basis) 99.9%	**2 gm** **10 gm**
RE3125 $TmCl_3$ (13537-18-3)	**Thulium** (III) **Chloride** M. W.: 275.29 Assay (Trace metal basis) 99.99%	**2 gm** **10 gm**
RE3130 $TmCl_3$ (13537-18-3)	**Thulium** (III) **Chloride** M. W.: 275.29 Assay (Trace metal basis) 99.999%	**2 gm** **10 gm**
RE3135 $TmCl_3$ (13537-18-3)	**Thulium** (III) **Chloride** M. W.: 275.29 Assay (Trace metal basis) 99.9999%	**1 gm** **25 gm**
RE3137 TmF_3 (13760-79-7)	**Thulium** (III) **Fluoride** M. W.: 225.93 Assay (Trace metal basis) 99.9%	**5 gm** **25 gm**
RE3139 TmF_3 (13760-79-7)	**Thulium** (III) **Fluoride** M. W.: 225.93 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**

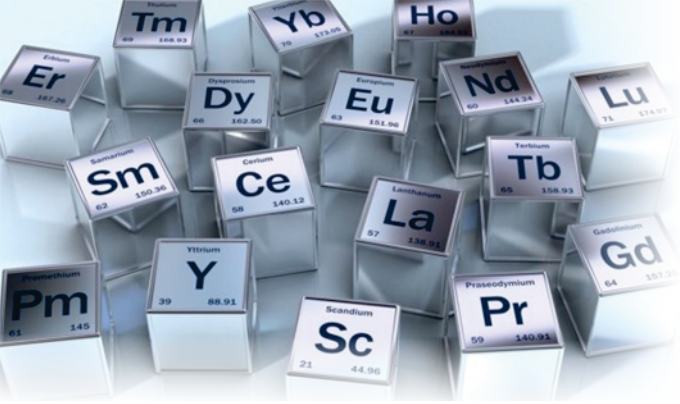
Rare Earth Metals



Product Code	Product Name	Packing
RE3141 TmF_3 (13760-79-7)	**Thulium (III) Fluoride** M. W.: 225.93 Assay (Trace metal basis) 99.999%	**1 gm** **25 gm**
RE3143 TmF_3 (13760-79-7)	**Thulium (III) Fluoride** M. W.: 225.93 Assay (Trace metal basis) 99.9999%	**1 gm** **25 gm**
RE3145 TmI_3 (13813-43-9)	**Thulium (III) Iodide** M. W.: 549.65 Assay (Trace metal basis) 99.95%	**1 gm** **5 gm**
RE3155 $Tm(NO_3)_3.xH_2O$	**Thulium (III) Nitrate** M. W.: 354.95 (Anhy.) Assay (Trace metal basis) 99.9%	**10 gm** **50 gm**
RE3160 $Tm(NO_3)_3.xH_2O$	**Thulium (III) Nitrate** M. W.: 354.95 (Anhy.) Assay (Trace metal basis) 99.99%	**2 gm** **10 gm**
RE3165 $Tm(NO_3)_3.xH_2O$	**Thulium (III) Nitrate** M. W.: 354.95 (Anhy.) Assay (Trace metal basis) 99.999%	**1 gm** **25 gm**
RE3170 $Tm(NO_3)_3.xH_2O$	**Thulium (III) Nitrate** M. W.: 354.95 (Anhy.) Assay (Trace metal basis) 99.9999%	**1 gm** **25 gm**
RE3172 $Tm_2(C_2O_4)_3.xH_2O$ (58176-73-3)	**Thulium Oxalate** M. W.: 601.93 (Anhy.) Assay (Trace metal basis) 99.9%	**5 gm** **25 gm**
RE3174 $Tm_2(C_2O_4)_3.xH_2O$ (58176-73-3)	**Thulium Oxalate** M. W.: 601.93 (Anhy.) Assay (Trace metal basis) 99.99%	**1 gm** **25 gm**

Product Code	Product Name	Packing
RE3176 $Tm_2(C_2O_4)_3.xH_2O$ (58176-73-3)	**Thulium Oxalate** M. W.: 601.93 (Anhy.) Assay (Trace metal basis) 99.999%	**1 gm** **25 gm**
RE3178 $Tm_2(C_2O_4)_3.xH_2O$ (58176-73-3)	**Thulium Oxalate** M. W.: 601.93 (Anhy.) Assay (Trace metal basis) 99.9999%	**1 gm** **25 gm**
RE3180 Tm_2O_3 (12036-44-1)	**Thulium Oxide** M. W.: 385.88 Assay (Trace metal basis) 99.9%	**10 gm** **50 gm**
RE3185 Tm_2O_3 (12036-44-1)	**Thulium Oxide** M. W.: 385.88 Assay (Trace metal basis) 99.99%	**2 gm** **10 gm**
RE3190 Tm_2O_3 (12036-44-1)	**Thulium Oxide** M. W.: 385.88 Assay (Trace metal basis) 99.999%	**1 gm** **5 gm**
RE3195 Tm_2O_3 (12036-44-1)	**Thulium Oxide** M. W.: 385.88 Assay (Trace metal basis) 99.9999%	**1 gm** **10 gm**
RE3205 $Tm_2(SO_4)_3.8H_2O$ (13778-40-0)	**Thulium Sulphate** M. W.: 770.18 Assay (Trace metal basis) 99.9%	**1 gm** **5 gm**
RE3210 $Tm_2(SO_4)_3.8H_2O$ (13778-40-0)	**Thulium Sulphate** M. W.: 770.18 Assay (Trace metal basis) 99.99%	**1 gm** **5 gm**
RE3215 $Tm_2(SO_4)_3.8H_2O$ (13778-40-0)	**Thulium Sulphate** M. W.: 770.18 Assay (Trace metal basis) 99.999%	**1 gm** **25 gm**





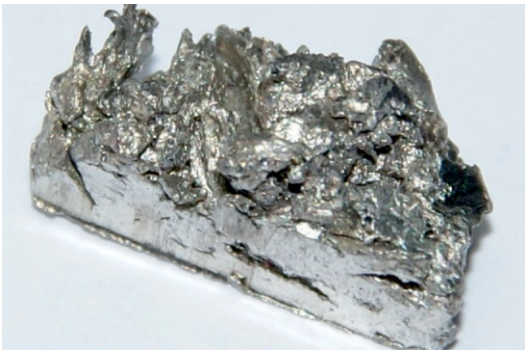
Rare Earth Metals

70 Ytterbium
Yb
173.04
$[Xe]4f^{14}6s^2$

Ytterbium

Ytterbium, atomic no.: 70, symbol as Yb, weight at 173.04, is being applied to numerous fiber amplifier and fiber optic technologies and in various lasing applications.

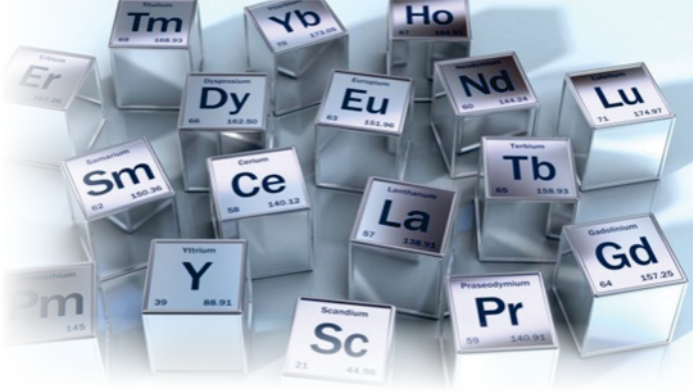
Ytterbium metal increases its electrical resistance when subjected to very high stresses. This property is used in stress gauges for monitoring ground deformations from earthquakes and nuclear explosions. Ytterbium can also be used as a dopant to help improve the grain refinement, strength, and other mechanical properties of stainless steel. Some Ytterbium alloys have rarely been used in dentistry.



Product Code	Product Name	Packing
RE3225 Yb (7440-64-4)	**Ytterbium** Metal Ingot M. W.: 173.04 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE3230 Yb (7440-64-4)	**Ytterbium** Metal Lump M. W.: 173.04 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE3235 Yb (7440-64-4)	**Ytterbium** Metal Powder 325 mesh M. W.: 173.04 Assay (Trace metal basis) 99.9%	**2 gm** **25 gm**
RE3537 Yb (7440-64-4)	**Ytterbium** Metal Wire (0.1 mm) M. W.: 173.04 Assay (Trace metal basis) 99.9%	**5 gm**
RE3240 Yb (7440-64-4)	**Ytterbium** Metal Rod (5cmx30cm) M. W.: 173.04 Assay (Trace metal basis) 99.99%	**1 PC**
RE3245 Yb (7440-64-4)	**Ytterbium** Metal Foil (0.25mmx40cm) M. W.: 173.04 Assay (Trace metal basis) 99.99%	**1 PC**
RE3250 Yb (7440-64-4)	**Ytterbium** Metal Foil (0.50mmx40cm) M. W.: 173.04 Assay (Trace metal basis) 99.99%	**1 PC**
RE3255 Yb (7440-64-4)	**Ytterbium** Metal SLAB 1 cmx40cm M. W.: 173.04 Assay (Trace metal basis) 99.99%	**1 PC**
RE3260 Yb (7440-64-4)	**Ytterbium** Metal Disc (0.1mmxdia 35cm) M. W.: 173.04 Assay (Trace metal basis) 99.99%	**1 PC**
RE3270 $Yb(CH_3CO_2)_3.4H_2O$ (15280-58-7)	**Ytterbium Acetate** M. W.: 422.23 Assay (Trace metal basis) 99.9%	**10 gm** **50 gm**
RE3275 $Yb(CH_3CO_2)_3.4H_2O$ (15280-58-7)	**Ytterbium Acetate** M. W.: 422.23 Assay (Trace metal basis) 99.99%	**5 gm** **100 gm**

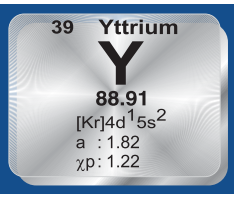
Product Code	Product Name	Packing
RE3280 $Yb(CH_3CO_2)_3.4H_2O$ (15280-58-7)	**Ytterbium Acetate** M. W.: 422.23 Assay (Trace metal basis) 99.999%	**2 gm** **100 gm**
RE3285 $Yb(CH_3CO_2)_3.4H_2O$ (15280-58-7)	**Ytterbium Acetate** M. W.: 422.23 Assay (Trace metal basis) 99.9999%	**2 gm** **100 gm**
RE3295 $Yb_2(CO_3)_3.XH_2O$ (64360-98-1)	**Ytterbium Carbonate** M. W.: 526.11 (Anhy.) Assay (Trace metal basis) 99.9%	**10 gm** **50 gm**
RE3300 $Yb_2(CO_3)_3.XH_2O$ (64360-98-1)	**Ytterbium Carbonate** M. W.: 526.11 (Anhy.) Assay (Trace metal basis) 99.99%	**10 gm** **50 gm**
RE3305 $Yb_2(CO_3)_3.XH_2O$ (64360-98-1)	**Ytterbium Carbonate** M. W.: 526.11 (Anhy.) Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE3310 $Yb_2(CO_3)_3.XH_2O$ (64360-98-1)	**Ytterbium Carbonate** M. W.: 526.11 (Anhy.) Assay (Trace metal basis) 99.9999%	**5 gm** **25 gm**
RE3320 $YbCl_3.6H_2O$ (10035-01-5)	**Ytterbium Chloride** M. W.: 387.49 Assay (Trace metal basis) 99.9%	**25 gm** **100 gm**
RE3325 $YbCl_3.6H_2O$ (10035-01-5)	**Ytterbium Chloride** M. W.: 387.49 Assay (Trace metal basis) 99.99%	**10 gm** **50 gm**
RE3330 $YbCl_3.6H_2O$ (10035-01-5)	**Ytterbium Chloride** M. W.: 387.49 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE3335 $YbCl_3.6H_2O$ (10035-01-5)	**Ytterbium Chloride** M. W.: 387.49 Assay (Trace metal basis) 99.9999%	**5 gm** **25 gm**

Rare Earth Metals



Product Code	Product Name	Packing
RE3345 YbF_3 (13760-80-0)	**Ytterbium (III) Fluoride** Anhydrous M. W.: 230.04	**10 gm**
RE3355 YbI_3	**Ytterbium Iodide** M. W.: 533.74 Assay (Trace metal basis) 99.95%	**5 gm** **25 gm**
RE3365 $Yb(NO)_3.XH_2O$	**Ytterbium Nitrate** M. W.: 359.05 (Anhy.) Assay (Trace metal basis) 99.9%	**10 gm** **100 gm**
RE3370 $Yb(NO)_3.XH_2O$	**Ytterbium Nitrate** M. W.: 359.05 (Anhy.) Assay (Trace metal basis) 99.99%	**10 gm** **50 gm**
RE3375 $Yb(NO)_3.XH_2O$	**Ytterbium Nitrate** M. W.: 359.05 (Anhy.) Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**

Product Code	Product Name	Packing
RE3380 $Yb(NO)_3.XH_2O$	**Ytterbium Nitrate** M. W.: 359.05 (Anhy.) Assay (Trace metal basis) 99.9999%	**2 gm** **25 gm**
RE3390 Yb_2O_3 (1314-37-0)	**Ytterbium Oxide** M. W.: 394.08 Assay (Trace metal basis) 99.9%	**25 gm** **100 gm** **1 kg**
RE3395 Yb_2O_3 (1314-37-0)	**Ytterbium Oxide** M. W.: 394.08 Assay (Trace metal basis) 99.99%	**10 gm** **50 gm**
RE3400 Yb_2O_3 (1314-37-0)	**Ytterbium Oxide** M. W.: 394.08 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE3405 Yb_2O_3 (1314-37-0)	**Ytterbium Oxide** M. W.: 394.08 Assay (Trace metal basis) 99.9999%	**2 gm** **25 gm**

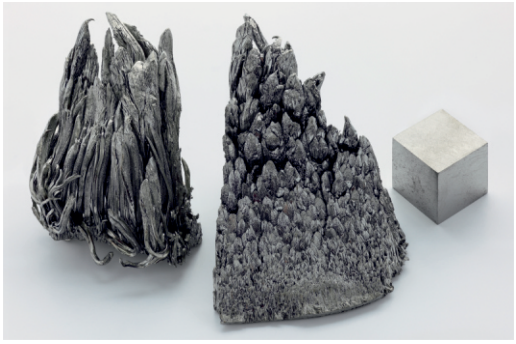


Yttrium

Yttrium, atomic no.: 39, symbol as Y, weight at 88.91, has the highest thermo-dynamic affinity for oxygen of any element, this characteristic is the basis for many of its applications. While not part of the rare earth series, it resembles the heavy rare earths which are sometimes referred to as the Yttrics for this reason.

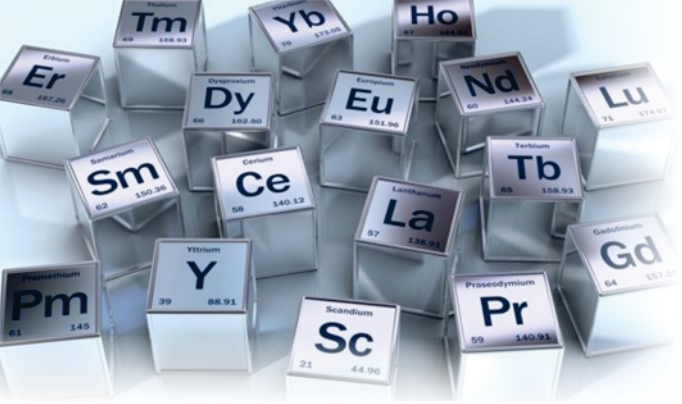
Another unique characteristic derives from its ability to form crystals with useful properties.

Some of the many applications of Yttrium include in ceramics for crucibles for molten reactive metals, in florescent lighting phosphors, computer displays and automotive fuel consumption sensors.



Product Code	Product Name	Packing
RE3435 Y (7440-65-5)	**Yttrium** Metal Ingot M. W.: 88.91 Assay (Trace metal basis) 99.99%	**10 gm** **50 gm**
RE3440 Y (7440-65-5)	**Yttrium** Metal Lump (1 cm) M. W.: 88.91 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE3445 Y (7440-65-5)	**Yttrium** Metal Powder 325 mesh M. W.: 88.91 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE3450 Y (7440-65-5)	**Yttrium** Metal Rod (5 cmx30 cm) M. W.: 88.91 Assay (Trace metal basis) 99.99%	**1 PC**
RE3455 Y (7440-65-5)	**Yttrium** Metal Foil (0.25 mmx40 cm) M. W.: 88.91 Assay (Trace metal basis) 99.99%	**1 PC**

Product Code	Product Name	Packing
RE3460 Y (7440-65-5)	**Yttrium** Metal Foil (0.50 mmx40 cm) M. W.: 88.91 Assay (Trace metal basis) 99.99%	**1 PC**
RE3465 Y (7440-65-5)	**Yttrium** Metal SLAB (1 cmx40 cm) M. W.: 88.91 Assay (Trace metal basis) 99.99%	**1 PC**
RE3470 Y (7440-65-5)	**Yttrium** Metal Disc (0.1 mmx dia 35 cm) M. W.: 88.91 Assay (Trace metal basis) 99.99%	**1 PC**
RE3485 $Y(CH_3CO_2)_3.xH_2O$ (304675-69-2)	**Yttrium Acetate** M. W.: 266.03 (Anhy.) Assay (Trace metal basis) 99.9%	**50 gm** **250 gm**
RE3490 $Y(CH_3CO_2)_3.xH_2O$ (304675-69-2)	**Yttrium Acetate** M. W.: 266.03 (Anhy.) Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**



Rare Earth Metals

Product Code	Product Name	Packing
RE3495 $Y(CH_3CO_2)_3.xH_2O$ (304675-69-2)	**Yttrium Acetate** M. W.: 266.03 (Anhy.) Assay (Trace metal basis) 99.999%	**10 gm** **100 gm**
RE3510 $Y_2(CO_3)_3.xH_2O$ (38245-39-5)	**Yttrium Carbonate** M. W.: 357.84 (Anhy.) Assay (Trace metal basis) 99.9%	**50 gm** **250 gm**
RE3515 $Y_2(CO_3)_3.xH_2O$ (38245-39-5)	**Yttrium Carbonate** M. W.: 357.84 (Anhy.) Assay (Trace metal basis) 99.99%	**25 gm** **100 gm**
RE3520 $Y_2(CO_3)_3.xH_2O$ (38245-39-5)	**Yttrium Carbonate** M. W.: 357.84 (Anhy.) Assay (Trace metal basis) 99.999%	**5 gm** **100 gm**
RE3535 $YCl_3.6H_2O$ (10025-94-2)	**Yttrium Chloride** M. W.: 303.36 Assay (Trace metal basis) 99.9%	**50 gm** **250 gm**
RE3540 $YCl_3.6H_2O$ (10025-94-2)	**Yttrium Chloride** M. W.: 303.36 Assay (Trace metal basis) 99.99%	**5 gm** **25 gm** **100 gm**
RE3545 $YCl_3.6H_2O$ (10025-94-2)	**Yttrium Chloride** M. W.: 303.36 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE3550 $YCl_3.6H_2O$ (10025-94-2)	**Yttrium Chloride** M. W.: 303.36 Assay (Trace metal basis) 99.9999%	**2 gm** **25 gm**
RE3560 YF_3 (13709-49-4)	**Yttrium Fluoride** M. W.: 145.9 Assay (Trace metal basis) 99%	**25 gm** **100 gm**
RE3565 YF_3 (13709-49-4)	**Yttrium Fluoride** M. W.: 145.9 Assay (Trace metal basis) 99.9%	**25 gm** **100 gm** **500 gm**
RE3570 YF_3 (13709-49-4)	**Yttrium Fluoride** M. W.: 145.9 Assay (Trace metal basis) 99.99%	**25 gm** **100 gm** **500 gm**
RE3575 Yf_3 (13709-49-4)	**Yttrium Fluoride** M. W.: 145.9 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE3590 $Y(OH)_3.xH_2O$	**Yttrium Hydroxide** M. W.: 139.93 (Anhy.) Assay (Trace metal basis) 99.9%	**50 gm** **250 gm**
RE3595 $Y(OH)_3.xH_2O$	**Yttrium Hydroxide** M. W.: 139.93 (Anhy.) Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE3600 $Y(OH)_3.xH_2O$	**Yttrium Hydroxide** M. W.: 139.93 (Anhy.) Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**

Product Code	Product Name	Packing
RE3615 $Y(NO_3)_3.xH_2O$	**Yttrium Nitrate** M. W.: 274.92 (Anhy.) Assay (Trace metal basis) 99.9%	**25 gm** **100 gm**
RE3620 $Y(NO_3)_3.xH_2O$	**Yttrium Nitrate** M. W.: 274.92 (Anhy.) Assay (Trace metal basis) 99.99%	**5 gm** **25 gm**
RE3625 $Y(NO_3)_3.xH_2O$	**Yttrium Nitrate** M. W.: 274.92 (Anhy.) Assay (Trace metal basis) 99.999%	**10 gm** **50 gm**
RE3640 $Y(C_8H_{15}O_2)_2$	**Yttrium Octoate** M. W.: 374.91 Assay (Trace metal basis) 99.9%	**50 gm** **250 gm**
RE3660 $Y_2(C_2O_4)_3.10H_2O$ (13266-82-5)	**Yttrium Oxalate** M. W.: 622.02 Assay (Trace metal basis) 99.9%	**50 gm** **250 gm**
RE3665 $Y_2(C_2O_4)_3.10H_2O$ (13266-82-5)	**Yttrium Oxalate** M. W.: 622.02 Assay (Trace metal basis) 99.99%	**25 gm**
RE3670 $Y_2(C_2O_4)_3.10H_2O$ (13266-82-5)	**Yttrium Oxalate** M. W.: 622.02 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**
RE3685 Y_2O_3 (1314-36-9)	**Yttrium Oxide** M. W.: 225.81 Assay (Trace metal basis) 99.9%	**10 gm** **25 gm** **250 gm** **1 kg**
RE3690 Y_2O_3 (1314-36-9)	**Yttrium Oxide** M. W.: 225.81 Assay (Trace metal basis) 99.99%	**25 gm** **250 gm** **1 kg**
RE3695 Y_2O_3 (1314-36-9)	**Yttrium Oxide** M. W.: 225.81 Assay (Trace metal basis) 99.999%	**25 gm** **100 gm** **1 kg**
RE3700 Y_2O_3 (1314-36-9)	**Yttrium Oxide** M. W.: 225.81 Assay (Trace metal basis) 99.9999%	**10 gm** **50 gm** **250 gm**
RE3715 $Y_2(SO_4)_3.6H_2O$	**Yttrium Sulphate** M. W.: 574.27 Assay (Trace metal basis) 99.9%	**50 gm** **250 gm**
RE3720 $Y_2(SO_4)_3.6H_2O$	**Yttrium Sulphate** M. W.: 574.27 Assay (Trace metal basis) 99.99%	**25 gm** **250 gm**
RE3725 $Y_2(SO_4)_3.6H_2O$	**Yttrium Sulphate** M. W.: 574.27 Assay (Trace metal basis) 99.999%	**5 gm** **25 gm**

Contact us

Central Drug House (P) Ltd.

AN ISO 9001:2008 COMPANY

Corporate Office : 7/28, Vardaan House, Mahavir Street
Ansari Road, Darya Ganj, New Delhi-110002 (INDIA)
Phone : +91-11-49404040 (100 lines)
Fax : +91-11-49404050, 23280932
E-mail : sales@cdhfinechemical.com - (Domestic)
export@cdhfinechemical.com - (Overseas)
Website : www.cdhfinechemical.com

Works : Plot No. D-2/CH/9, Dahej – 2 Industrial Estate,
GIDC, Dahej, Dist. Bharuch – 392130 (Gujarat)

Central Stock Point I Vadodara
Block No 113 P, Warehouse No 5, M P Patel Estate
Ranoli Crossing, NH No 8, P.O Dashrath
Dist.Vadodara- 391740
Phone : +91-265-2243695, 2243698
Email : baroda@cdhfinechemical.com

SEARCH PRODUCTS BY

- Chemical Name
- Synonym
- Product Code
- CAS Number
- Product Category
- Product Grades

Complete access to online COA / MSDS / SPECIFICATION
at www.cdhfinechemical.com

Central Drug House (P) Ltd.

AN ISO 9001:2008 CERTIFIED COMPANY

Corporate Office : 7/28, Vardaan House, Ansari Road, Daryaganj
New Delhi – 110 002 (India)

Phone : +91-11-49404040 (100 Lines) Fax : 49404050

E-mail : sales@cdhfinechemical.com - (Domestic)
export@cdhfinechemical.com - (Overseas)

Works : Plot No. D-2/CH/9, Dahej – 2 Industrial Estate,
GIDC, Dahej, Dist. Bharuch – 392130 (Gujarat)

Website : www.cdhfinechemical.com