

Cerium Metal

High Purity Ce Metal

Product	Product Code	Order or Specifications
99% Cerium Metal	CE-M-02	Contact
99.9% Cerium Metal	CE-M-03	Contact
99.99% Cerium Metal	CE-M-04	Contact
99.999% Cerium Metal	CE-M-05	Contact

Cerium Metal is available as [disc](#), [granules](#), [ingot](#), [pellets](#), [pieces](#), [powder](#), [rod](#), [sputtering target](#), [wire](#), and in numerous other forms and custom shapes. [Safety data](#) and [research](#). Ultra high purity and high purity forms also include metal powder, [submicron powder and nanoscale](#), [quantum targets](#) for [thin film](#) deposition, [pellets](#) for evaporation and single [crystal](#) or polycrystalline forms. Elements can also be introduced into other systems as [fluorides](#), [oxides](#) or [chlorides](#) or as [solutions](#). Cerium [metal](#) is generally immediately available in most volumes. The most common commercial applications for cerium include metallurgy, glass and glass polishing, ceramics, catalysts, and in phosphors. In steel manufacturing it is used to remove free oxygen and sulfur by forming stable oxysulfides and by tying up undesirable trace elements, such as lead and antimony. It is considered to be the most efficient glass polishing agent for precision optical polishing. Additional technical, research and safety (MSDS) information is available as is a [Reference Calculator](#) for converting relevant units of measurement.



Cerium is a Block F, Group 3, Period 6 element. The electronic configuration is $[Xe]4f^26s^2$. In its elemental form cerium's CAS number is 7440-45-1. The atomic radius is 182.5 pm and its Van der Waals radius is 181 pm. Cerium is one of the products manufactured and distributed under the tradename **Earth**. Cerium is the most abundant of the rare earths [metals](#). 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. It is also a strong oxidizer. The cerous state resembles the other trivalent rare earths. The numerous commercial applications for cerium include metallurgy, [glass](#) and glass polishing, ceramics, catalysts, and in phosphors. In steel manufacturing it is used to remove free oxygen and sulfur by forming stable oxysulfides and by tying up undesirable trace elements, such as [lead](#) and [antimony](#). It is considered to be the most efficient glass polishing agent for precision optical polishing. It is also used to decolor glass by keeping iron in its ferrous state.

Formula	CAS No.	Appearance	Molecular Weight	Density	Melting Point	Boiling Point	Solubility	Stability
Ce	7440-45-1	Silvery ingot	140.12	6689 kg/m ³	795 °C	3360 °C		Easy oxidized in the air.

PRODUCT CATALOG

[Cerium Products](#)

[News](#)

[Cerium Research, Properties, & Information](#)

[Foil](#)

[Submicron & Nanopowder](#)

[Tolling](#)

[Ultra High Purity](#)

[Sputtering Target](#)

[Crystal Growth](#)

[Rod, Plate, Powder, etc.](#)

[MSDS](#)

[Home](#)