Titanium Chemicals

Your Safe and Reliable Source of High Quality Titanium Chemicals

Titanium tetrachloride and titanium chemicals are the source for adding titanium’s unique functionality into your products. Cristal is the world’s largest merchant and specialized supplier of these materials, with many years of experience in manufacturing at multiple sites and safely distributing them throughout the world. To suit our customers’ needs on a global basis, Cristal has developed a range of titanium chemicals in various packaging types.

PROVEN PERFORMANCE

Cristal is the global leading supplier to a wide variety of end-use applications for titanium tetrachloride and titanium chemicals:

- Polymerization catalysis
- Pearlescent pigments
- Environmental and chemical processing catalysis
- Pharmaceuticals and organics catalysis
- Metal surface treatment
- Electronics
- Manufacturing of sponge and powders for titanium metal applications

SAFE AND RELIABLE

Cristal has been safely supplying titanium tetrachloride and titanium chemicals for over 50 years. During this time, Cristal has built strong safety, handling, and logistics capabilities. The use of production sites on two continents helps us provide customers with reliable and secure supply.

Cristal is committed to protecting our environment and your personal safety:

- We start our customer relationship with a rigorous and detailed preliminary risk assessment evaluation.
- Training programs are provided for new and existing customers to share safe handling practices.
- Our technical experts are available to provide general safety and operational advice.
- All Cristal sites are ISO 9001 compliant. Our US Ashtabula, Ohio and our European Thann, France plants involved in the merchant titanium chemicals business are both ISO 14001 compliant. Our Thann plant is also OHSAS 18001 compliant.
- Cristal has completed a full REACH substance registration of titanium tetrachloride, titanium oxychloride and titanium oxysulphate chemicals.
- We are an active member of the European Chemical Industry Council (CEFIC), promoting safe handling of titanium chemicals, working with associated industries and sharing the knowledge of best practices for safety and environment (refer to http://www.cefic.org and search for “TiCl₄ Safety Advice” document). The CEFIC guidelines are incorporated into all of our quality, safety, and environmental protection activities.
- The continuous and collaborative safety assessment performed with our customers helps us to reinforce safety practices.
Our Products

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TITANIUM TETRACHLORIDE (TiCl₄)

Cristal produces high quality and consistent pure or premium titanium tetrachloride, in Europe and in the USA respectively, as well as titanium chemicals.

Titanium tetrachloride is a clear liquid at ambient temperature and is available in secured packaging of various sizes. Pure and premium grades titanium tetrachloride are used in catalyst applications where trace metal impurities can affect performance in the end-use applications. One of the major applications relying on high quality titanium tetrachloride is the synthesis of Ziegler-Natta type catalysts for polyolefin production. High quality titanium metal and powders also require the use of pure or premium titanium tetrachloride. Standard grade titanium tetrachloride is used for the synthesis of titanium dioxide.

Following the United Nation regulation upgrade of titanium tetrachloride implemented in 2011 and fully applicable in 2017, Cristal is providing improved new packaging types designed in coordination with selected partners and enabling a global supply of TiCl₄.

TITANIUM OXYCHLORIDE (TiOCl₂)

Titanium oxychloride is an aqueous solution of titanium tetrachloride. Titanium oxychloride is easier to incorporate into aqueous systems than the anhydrous titanium tetrachloride form, due to a lower heat of dilution. Titanium oxychloride is produced with the same attention to purity levels as titanium tetrachloride. This is the preferred form for the pearlescent pigment application.

TITANIUM OXYSULPHATE OR TITANYL SULPHATE (TiO₂SO₄)

Titanium oxysulphate, also known as titanyl sulphate, is an acidic aqueous solution. This product is mainly used as a titanium precursor.

Titanium chemicals are available in a wide range of packaging types and sizes. For further information on titanium chemicals products, please contact:

Specialty Chemicals and Materials Sales Office + 33 1 55 04 89 30

Visit our website: www.cristal.com

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