

## Titanium Dioxide in Paints and Coatings – Q & A

### **What is Titanium Dioxide (TiO<sub>2</sub>)?**

Titanium dioxide is a white pigment.

### **How is TiO<sub>2</sub> used?**

As a pigment, titanium dioxide is used in over 90% of paint and ink products, to decorate and to protect surfaces and objects in both consumer and industrial settings.

Titanium dioxide is used in a variety of paint and coating applications to achieve whiteness, covering power, brightness, stability and durability of colour that cannot be achieved with other raw materials.

Titanium dioxide is widely used in several other industrial applications and consumer products, including foods, pharmaceuticals, cosmetics, textiles, ceramics, construction materials and plastics.

### **Is TiO<sub>2</sub> safe?**

In Australia, TiO<sub>2</sub> is approved for use in food by Food Standards Australia New Zealand (FSANZ). TiO<sub>2</sub> is also approved for use as a food colouring in Europe, by the Codex Alimentarius of the United Nations' FAO/WHO, in the United States by the Food and Drug Administration (FDA) and other countries.

The Commonwealth Department of Health has classified TiO<sub>2</sub> as non-hazardous to human health. This conclusion is consistent with the findings of other global regulatory agencies.

The Commonwealth Department of Health has, however, acknowledged the risk of lung overload where large quantities of TiO<sub>2</sub> are inhaled for long periods. Such risks are not unique to TiO<sub>2</sub> as the inhalation of any fine powder may result in lung overload.

### **What are the risks to consumers from TiO<sub>2</sub> in paint?**

The powder form of titanium dioxide presents zero risk to consumers when incorporated in a finished product such as paint. Consumers and professionals using paint, coating or ink products are not exposed to the powder form of TiO<sub>2</sub>, once it is embedded in a paint, coating or ink.

While exposure to TiO<sub>2</sub> does not represent a risk to consumers and professionals using paints and coatings, to minimise the risk of fine particle (dust) inhalation, consumers should always wear appropriate respiratory protection (i.e. masks) when sanding painted surfaces and using spray apparatus (including aerosols) to apply paints and coatings.

### **The manufacture of paints and coatings - How are TiO<sub>2</sub> risks managed?**

The Commonwealth Department of Health has stated that the current workplace exposure standard for titanium dioxide is adequate to protect workers from lung overload conditions.