



Product Safety Summary Sheet

DuPont™ Ti-Pure® Titanium Dioxide (TiO₂)

Chemical Identification, Product Identification or Common Name:

CAS number (EC inventory): 13463-67-7

CAS name: Titanium oxide (TiO₂)

EC number: 236-675-5

EC name: titanium dioxide

IUPAC name: dioxotitanium

Product Uses and Applications:

This chemical or product is generally used in the following manner:

- Coloring agents, pigments,
- Agents adsorbing and absorbing gases or liquids,
- Fillers,
- Laboratory chemicals,
- Semiconductors and photovoltaic agents.

Physical Properties of the Chemical or Product:

Titanium Dioxide is a solid, crystalline, white, odorless, inorganic substance with a boiling point approaching 3,000 °C. Melting points for the three naturally occurring forms of titanium dioxide range between 1560°C and 1843°C.

Exposure Potential:

Workplace exposure: The substance is used in industrial settings only. The most relevant route for worker exposure to titanium dioxide is by inhalation of dust. Because titanium dioxide is generally not absorbed through the skin or via the gastrointestinal tract, dangers of exposures to workers via

these routes are minimal. Uses in industrial settings are generally under controlled conditions and often in closed systems.

Workers should follow the recommended safety measures contained within the (Material) Safety Data Sheet ((M)SDS) and on any product packaging. Employees should be trained in the appropriate work processes and safety equipment to limit exposure to chemical substances. Occupational use of this substance is considered to be safe provided the recommended safety measures in the (M)SDS are followed.

Consumer exposure: Based on available data titanium dioxide is not a hazardous substance. The substance is used in powdered form in industrial settings only. No indirect exposure via the environment is expected. Therefore, no relevant consumer exposure is expected. Because titanium dioxide has been well-studied, a reasonable determination of its adverse effects on the population at-large can be stated. Health risks through exposure to titanium dioxide in its powdered form appear negligible.

Environmental exposure: The substance is a natural mineral. Exposure to the environment is not relevant since titanium dioxide is not classified as dangerous to the environment.

Health Information:

Note: The information contained in this section may be useful to someone handling the dry product such as a manufacturer or transporter. Consumers are not likely to come in contact with the dry product. For more information on health hazards and recommended protective equipment, please refer to the (M)SDS.

Exposures may affect human health as follows:

Effect Assessment	Result
Acute Toxicity	No classification required since it does not meet regulated classification criteria.
Irritation	Skin, eye and respiratory: Not chemically irritating, may be mechanically irritating.
Sensitization	Not sensitizing.
Mutagenicity	Does not cause genetic toxicity.
Carcinogenicity	Based on epidemiologic evidence, not a carcinogen.
Toxicity after repeated exposure	Not classified for toxicity after repeated exposure.
Toxicity for reproduction	Does not present a reproductive toxicity hazard.

Environmental Information:

Note: The information in this chapter is intended to provide brief and general information of this substance's environmental impact. The results in the table below refer to testing performed with the dry product. The data do not replace the data given in the (M)SDS. For more information and recommended protective measures please refer to the (M)SDS.

Effect Assessment	Result
Aquatic Toxicity	Not expected to be harmful to aquatic species.
Persistence and degradability	Not readily biodegradable.
Bioaccumulation potential	Not bioaccumulative

Risk Management:

Workplace Management: Risk management measures for industrial site use include containment through engineering controls and personal protective equipment. If accidental exposure occurs, use of personal protective equipment such as an approved respirator, chemical resistant gloves, chemical goggles, and protective clothing should be utilized whenever appropriate. Always refer to the (Material) Safety Data Sheet ((M)SDS) for guidance on personal protective equipment.

Consumer Risk Management: Because of the benign characteristics of titanium dioxide, and the lack of consumer exposure, there is no need for a risk management plan for consumers.

Regulatory Information:

Always refer to the (Material) Safety Data Sheet ((M)SDS) for guidance on regulatory restrictions that may govern the manufacture, sale, transportation, use and/or disposal of this chemical or product. Regulations may vary by region, country, state, county, city, or local government.

First Aid Information:

For all First Aid or Emergency information, consult the (Material) Safety Data Sheet ((M)SDS).

Information Sources:

Data is compiled from a variety of sources, including publicly available documents, internal data and other sources such as, but not limited to, Chemical Safety Reports and (Material) Safety Data Sheets ((M)SDS).

Contact Information:

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