

SAFETY DATA SHEET (EC 1907/2006)**AEROXIDE® TiO2 P 25**

Material no.		Version	3.8 / REG_EU
Specification	132843	Revision date	29.08.2008
VA-Nr		Print Date	30.08.2008
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product information**

Trade name	:	AEROXIDE® TiO2 P 25
Company	:	Evonik Degussa GmbH Inorganic Materials Produktsicherheit IM-IM-PS Postfach 1345 D-63403 Hanau
Telephone	:	+49 (0)6181 59-4787
Telefax	:	+49 (0)6181 59-4205
Email address	:	sds.asfp@evonik.com
Emergency telephone number	:	+49 (0)7623-919191
Use of the Substance / Preparation	:	Catalyst support Stabilizer UV-filters

2. HAZARDS IDENTIFICATION**Additional safety information for humans and the environment**

On the basis of our data the product is not a hazardous substance as defined by the Chemicals Act or Hazardous Substance Ordinance in the currently valid versions.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Information on ingredients / Hazardous components**• **Titanium dioxide**

CAS-No.	13463-67-7	EC-No.	236-675-5
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See chapter 16 for text of risk phrases

4. FIRST AID MEASURES**Inhalation**

In case product dust is released:
Possible discomfort: cough, sneezing
Move victims into fresh air.

Skin contact

Wash off with plenty of water and soap.

Eye contact

Possible discomfort is due to foreign substance effect.
Rinse thoroughly with plenty of water keeping eyelid open.
In case of persistent discomfort: Consult an ophthalmologist.

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Ingestion

Clean mouth with water and drink afterwards plenty of water.

After absorbing large amounts of substance / In case of discomfort: Supply with medical care.

Notes to physician

No hazards which require special first aid measures.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

All extinguishing substances suitable.

Specific hazards during fire fighting

None known

Further information

Water used to extinguish fire should not enter drainage systems, soil or stretches of water.

Ensure there are sufficient retaining facilities for water used to extinguish fire.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Wear personal protective equipment.

Environmental precautions

Do not allow entrance in sewage water, soil stretches of water, groundwater, drainage systems.

Methods for cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal.

Avoid dust formation.

7. HANDLING AND STORAGE**Handling****Safe handling advice**

If necessary: Local ventilation.

Advice on protection against fire and explosion

Take precautionary measures against static discharges.

Storage**Requirements for storage areas and containers**

Keep in a dry place.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Components with workplace control parameters****Personal protective equipment****Respiratory protection**

No special protective equipment required.
If dust occurs: Dust mask with P2 particle filter

Hand protection

Wear protective gloves made of the following materials: nitrile rubber (NBR), butyl rubber, PVC.
The material thickness and rupture time data do not apply to non-solute solids / dusts.

Eye protection

Safety glasses with side-shields
If dust occurs: basket-shaped glasses

Skin and body protection

No special protective equipment required.
preventive skin protection
Cleanse and apply cream to skin after work.

Hygiene measures

When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work.
Avoid contaminating clothes with product. Wash contaminated clothing after use.

Protective measures

Handle in accordance with good industrial hygiene and safety practices.
If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used.
If the limits at the workplace are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	powder
Colour	white
Odour	odourless

Safety data

pH	3.5 - 4.5	(40 g / l)	(20 °C)
Melting point/range	ca. 1850 °C		
Boiling point/range	not applicable		
Flash point	not applicable		
Flammability	not applicable		
Ignition temperature	not applicable		
Autoinflammability	not applicable		

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Lower explosion limit	not applicable
Upper explosion limit	not applicable
Minimum ignition energy	> 10 Joule
Vapour pressure	not applicable
Density	ca. 3.8 g/cm ³ (20 °C)
Tapped density	ca. 130 g / l Method: DIN 53 194
Water solubility	insoluble
Partition coefficient (n-octanol/water)	not applicable
Viscosity, dynamic	not applicable

10. STABILITY AND REACTIVITY

Hazardous decomposition products	None known
Thermal decomposition	> 2000 °C

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	LD50 Rat: > 10000 mg/kg Method: literature (limit test)
Acute dermal toxicity	LD50 Rabbit: >= 10000 mg/kg Method: literature
Skin irritation	Rabbit / literature not irritating
Eye irritation	Rabbit / literature not irritating
Sensitization	Optimizations-test guinea pig: not sensitizing Method: literature Patch test : not sensitizing Method: literature
Gentoxicity in vitro	Microorganisms, cell cultures Shown no mutagenic/genotoxic effect., literature
Gentoxicity in vivo	Microorganisms, cell cultures Shown no mutagenic/genotoxic effect., literature
Carcinogenicity	Oral rat, mouse: 103 weeks

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no evidence that cancer may be caused, literature.
Feeding experiments

inhalative Rat: 2 years
Method: literature
Increased incidence of lung tumors.

The scientific discussion of the tumorigenic effect of sparingly soluble inorganic particles (fine dusts)- such as titanium dioxide - is ongoing. It is the opinion of many inhalation toxicologists that the tumor formation observed in rats results from a species-specific mechanism involving overloading of the rat lung (overload phenomenon). Corresponding findings resulting from exposure of humans have not been observed to date. On the other hand, the International Agency for Research on Cancer (IARC) assessed, in February of 2006, the available rat model studies as constituting sufficient proof of the carcinogenicity of titanium dioxide in animal models. For humans, the IARC does not see sufficient evidence of a carcinogenic effect of titanium dioxide. However, the IARC evaluation scheme results in an overall assessment of titanium dioxide as "possibly carcinogenic to humans" (Group 2B).

inhalative (mouse): 2 years
no evidence that cancer may be caused, literature.

Human experience

Epidemiological studies to date have not revealed any evidence of a relation between exposure to titanium dioxide and diseases of the respiratory tract beyond general effects of dust.

12. ECOLOGICAL INFORMATION**Elimination information (persistence and degradability)****Behaviour in environmental compartments****Ecotoxicity effects**

Toxicity to fish	LC50 Fundulus heteroclitus: > 1000 mg/l / 96 h Method: literature
Toxicity to daphnia	EC0 Daphnia magna: 1000 mg/l / 48 h Method: literature
Toxicity to bacteria	EC0 Pseudomonas fluorescens: 10000 mg/l / 24 h Method: DEV, DIN 38412, T. 8 (modified).

13. DISPOSAL CONSIDERATIONS**Product**

Disposal according to local authority regulations.

Uncleaned packaging

Offer rinsed packaging material to local recycling facilities.
Other countries: observe the national regulations.

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Waste Key Number

No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer.

The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm / producing firm / official authority.

14. TRANSPORT INFORMATION**Transport/further information**

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION**Labelling according to EC Directives**

Other data

On the basis of our data the product is not a hazardous substance as defined by the Chemicals Act or Hazardous Substance Ordinance in the currently valid versions.

National legislation

16. OTHER INFORMATION**Risk phrase (R phrase) texts****Further information**

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.