

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 19.02.2018

Version number 103

Revision: 24.03.2017

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### - 1.1 Product identifier

- Trade name **KRONOS Titanium dioxide (all types)**

- CAS Number:

13463-67-7

- EC number:

236-675-5

- REACH-Registration number 01-2119489379-17

#### - 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

#### - Application of the substance / the mixture

Pigment

White pigment for application in coatings, coating materials, printing inks, man-made fibres, plastics, paper, glass, vitreous enamels, ceramic products.

#### - 1.3 Details of the supplier of the safety data sheet

##### - Manufacturer/Supplier:

Stockmeier Chemie GmbH & Co.KG

Am Stadtholz 37

D-33609 Bielefeld

Phone: + 49(0)521/3037-0

Fax: + 49 (0)521/3037-159

##### - Informing department:

Product safety department. Tel.: 0049 / 521 / 3037-162, 3037-311 or 3037-328

E-mail: ehs-bielefeld@stockmeier.de

#### - 1.4 Emergency telephone number:

Poison Control Center, Mainz

Tel. 00 49 / 61 31 / 19 240

### \* SECTION 2: Hazards identification

#### - 2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008

The substance is not classified according to the CLP regulation.

#### - 2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008 Void

- Hazard pictograms Void

- Signal word Void

- Hazard statements Void

#### - 2.3 Other hazards

- Results of PBT and vPvB assessment

- PBT: Not applicable.

- vPvB: Not applicable.

### SECTION 3: Composition/information on ingredients

#### - 3.1 Substances

- CAS No. Designation:

13463-67-7 titanium dioxide

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- **Identification no(s):**
  - **EC number:** 236-675-5
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#### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
  - **General advice:** No special measures required.
  - **After inhalation** Supply fresh air; consult doctor in case of symptoms.
  - **After skin contact**  
Wash skin with water using soap if available. If persistent irritation occurs, obtain medical attention.
  - **After eye contact** Rinse opened eye for 15 minutes under running water.
  - **After swallowing**  
Rinse out mouth and then drink plenty of water.  
In case of persistent symptoms consult doctor.
  - **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
  - **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.
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#### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
  - **Suitable extinguishing agents**  
Product is non-flammable. Use fire fighting measure that suit the surroundings.
  - **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
  - **5.3 Advice for firefighters**
  - **Protective equipment:** Wear self-contained breathing apparatus.
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#### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Avoid causing dust.
  - **6.2 Environmental precautions:** Do not allow product to reach sewage system or water bodies.
  - **6.3 Methods and material for containment and cleaning up:** Collect mechanically.
  - **6.4 Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.
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#### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Store in cool, dry place in tightly closed containers.  
Provide suction extractors if dust is formed.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage** Store in a dry place.
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Store under dry conditions.
- **Storage class** 13 (TRGS 510)

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- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:**

If dust development possible ensure good ventilation/exhaustion at the workplace

- **8.1 Control parameters**- **Components with critical values that require monitoring at the workplace:****13463-67-7 titanium dioxide (50-100%)**

WEL	Long-term value: 10* 4** mg/m <sup>3</sup> *total inhalable **respirable
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- **DNELs**

Inhalative	DNEL (worker)	10 mg/m <sup>3</sup> (Long-term - local effects) (für Staubbelastung)
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- **PNECs**

PNEC aqua	0.127 mg/l (fresh water) 1 mg/l (marine water)
PNEC	100 mg/kg dw (STP (sewage treatment plant))
PNEC sediment	1,000 mg/kg dw (fresh water)

- **Additional information:** The lists that were valid during the compilation were used as basis.- **8.2 Exposure controls**- **Personal protective equipment**- **General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.

Keep away from food, beverages and fodder.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

Breathing protection to be used where a build-up of dust occurs.

Use breathing protection in case of insufficient ventilation.

Filter FFP2 (EN 149).

- **Protection of hands:**

Preventive skin protection by use of skin-protecting agents is recommended.

Check protective gloves prior to each use for their proper condition.

Titanium dioxide pigments are not irritant but as with all fine powders can absorb moisture and natural oil from the surface of the skin during prolonged exposure. Prolonged exposure should be avoided by wearing suitable protective gloves and clothing.

- **Material of gloves**

Chloroprene rubber, CR

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Mechanical resistance: Level 1,2,2,2 (EN 388)

- **Eye protection:** Safety glasses recommended during refilling.- **Body protection:** Standard protective working clothes

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### SECTION 9: Physical and chemical properties

#### - 9.1 Information on basic physical and chemical properties

##### - General Information

##### - Appearance:

Form: Powder

Colour: White

- Smell: Odourless

- Odour threshold: Not determined.

- pH-value (100 g/l) at 20 °C: ~ 7

##### - Change in condition

Melting point/freezing point: ~ 1855 °C

Initial boiling point and boiling range: 2500 - 3000 °C

- Flash point: Product is non-flammable nor potentially explosive

- Inflammability (solid, gaseous) Product is not inflammable.

- Decomposition temperature: Void

- Self-inflammability: Not determined.

- Explosive properties: Product is not potentially explosive

##### - Critical values for explosion:

Lower: Not determined.

Upper: Not determined.

- Vapour pressure: Not applicable.

- Density at 20 °C  
4,24 g/cm<sup>3</sup>  
Anatas 3,9 g/cm<sup>3</sup>, Rutil 4,2 g/cm<sup>3</sup>

- Settled apparent density at 20 °C 500 - 900 kg/m<sup>3</sup>

- Relative density Not determined.

- Vapour density Not applicable.

- Evaporation rate Not applicable.

##### - Solubility in / Miscibility with

Water: Insoluble

- Partition coefficient: n-octanol/water: Not determined.

##### - Viscosity:

dynamic: Not applicable.

kinematic: Not applicable.

- 9.2 Other information No further relevant information available.

- molecular weight (weight average/Mw): 79,9 g/mol

### SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.

- 10.2 Chemical stability

- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- 10.3 Possibility of hazardous reactions No dangerous reactions known

- 10.4 Conditions to avoid No further relevant information available.

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- **10.5 Incompatible materials:** No further relevant information available.
  - **10.6 Hazardous decomposition products:** No dangerous decomposition products known
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### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- <b>LD/LC50 values that are relevant for classification:</b>		
Oral	LD50	>10,000 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rab)

- **Primary irritant effect:**
  - **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
  - **Serious eye damage/irritation** Eye exposure (to dust) may produce irritation.
  - **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
  - **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
  - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
  - **Carcinogenicity** Based on available data, the classification criteria are not met.
  - **Reproductive toxicity** Based on available data, the classification criteria are not met.
  - **STOT-single exposure** Based on available data, the classification criteria are not met.
  - **STOT-repeated exposure** Based on available data, the classification criteria are not met.
  - **Aspiration hazard** Based on available data, the classification criteria are not met.
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### SECTION 12: Ecological information

- **12.1 Toxicity**

- <b>Aquatic toxicity:</b>	
LC 50 / 96 h	>100 mg/l (Oncorhynchus mykiss)
EC 50 / 48 h	>1,000 mg/l (Daphnia magna)

- **12.2 Persistence and degradability** Inorganic product: not biodegradable.
  - **12.3 Bioaccumulative potential** No further relevant information available.
  - **12.4 Mobility in soil** No further relevant information available.
  - **Additional ecological information:**
  - **General notes:** Generally not hazardous for water.
  - **12.5 Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
  - **12.6 Other adverse effects** No further relevant information available.
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### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation**

A used product should be recycled or used in other contexts, otherwise be handed over to an appropriate disposal site.

Must be specially treated under adherence to official regulations.

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**- Waste disposal key number:**

Since 01/01/99 the waste code numbers have not only been product-related but are also essentially application-related. The valid waste code number of the application can be obtained from the European waste catalogue.

**- Uncleaned packagings:**

**- Recommendation:** Packaging can be reused or recycled after cleaning.

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### SECTION 14: Transport information

<b>- 14.1 UN-Number</b>	
<b>- ADR, IMDG, IATA</b>	Void
<b>- 14.2 UN proper shipping name</b>	
<b>- ADR, IMDG, IATA</b>	Void
<b>- 14.3 Transport hazard class(es)</b>	
<b>- ADR, IMDG, IATA</b>	
<b>- Class</b>	Void
<b>- 14.4 Packing group</b>	
<b>- ADR, IMDG, IATA</b>	Void
<b>- 14.6 Special precautions for user</b>	Not applicable.
<b>- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
<b>- Transport/Additional information:</b>	Not dangerous according to the above specifications.
<b>- UN "Model Regulation":</b>	Void

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### SECTION 15: Regulatory information

**- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**- Labelling according to Regulation (EC) No 1272/2008** Void

**- Hazard pictograms** Void

**- Signal word** Void

**- Hazard statements** Void

**- 15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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### SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**- Department issuing data specification sheet:** see item 1: Informing department

**- Contact:**

Frau S. Ademoglu

Frau L. Hüser

Herr G. März

**- Abbreviations and acronyms:**

RPE: Respiratory Protective Equipment

RCR: Risk Characterisation Ratio (RCR= PEC/PNEC)

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ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008)

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

TRGS: Technische Regeln für Gefahrstoffe (Technical Rules for Dangerous Substances, BAuA, Germany)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

vPvB: very Persistent and very Bioaccumulative

- \* **Data compared to the previous version altered.**

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