Safety Data Sheet
acc. to OSHA HCS

Printing date 07/15/2026 **Version 1.00** **Reviewed on 07/14/2026**

1 Identification

Product identifier
Trade name: **KRONOS 2073**
Other means of identification
Relevant identified uses of the substance or mixture White pigment for application in coating materials, printing inks, man-made fibres, plastics, paper, glass, vitreous enamels, ceramic products
Manufacture of titanium metal

Uses advised against Food contact

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KRONOS (US), Inc.
5430 LBJ Freeway, Suite 1700
Dallas, Tx 75240
+1 (972) 233-1700

Emergency telephone number: +1-800-424-9300 (CHEMTREC) for transportation emergencies only (US)
+1-800-866-5600 for other product information (8:00 AM – 5:00 PM, US central time)

2 Hazard(s) identification

Classification of the substance or mixture The product is not classified, according to the Globally Harmonized System (GHS).

Label elements
GHS label elements Not applicable
Hazard pictograms Not applicable
Signal word Not applicable
Hazard statements Not required
Precautionary statements Not applicable

3 Composition/information on ingredients

Chemical characterization: Mixtures

Dangerous components:

CAS: 77-85-0 **Trimethylolethan (TME)** **<0.45%**
EINECS: 201-063-9 **Reproductive toxicity 2, H361**

4 First-aid measures

Description of first aid measures
General information No special measures required.

After inhalation Supply fresh air; consult doctor in case of complaints.

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After skin contact	**Wash with water and soap and rinse thoroughly.**
After eye contact	**Rinse opened eye for several minutes under running water. If symptoms persist consult doctor.**
After swallowing	**No special measures required.**
Most important symptoms and effects, both acute and delayed	**No further relevant information available.**
Indication of any immediate medical attention and special treatment needed	**No further relevant information available.**

5 Fire-fighting measures

Extinguishing media Suitable extinguishing agents	**Use fire fighting measures that suit the environment. The product is not flammable.**
Special hazards arising from the substance or mixture	**None**
Advice for firefighters Protective equipment:	**Use protective measures that suit the hazard conditions.**

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures	**Not required**
Environmental precautions:	**No special measures required.**
Methods and material for containment and cleaning up:	**Collect mechanically. Avoid formation of dust.**
Reference to other sections	**See Section 8 for information on personal protective equipment. See Section 13 for disposal information.**

7 Handling and storage

Precautions for safe handling	**Provide vacuum dust collection if dust is formed.**
Information about protection against explosions and fires:	**The product is not flammable**

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Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required

Further information about storage conditions: Store in dry conditions.

8 Exposure controls/personal protection

Control parameters

Components with limit values that require monitoring at the workplace: The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit. At this time, the remaining constituent has no known exposure limits.

CAS: 13463-67-7 Titanium dioxide

ACGIH - TLV Long-term value: 10 TWA, mg/m³
respirable fraction 1mg/m³ TWA

OSHA - PEL Long-term value: 15* mg/m³
*total dust, 8 hr TWA

PEL Long-term value: 15* mg/m³
*total dust

REL See Pocket Guide App. A

TLV Long-term value: 0.2* 2.5** mg/m³
resp. fraction, *nanoscale,**finescale, A3

Exposure controls

Personal protective equipment

General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed.
Titanium dioxide pigments are not irritants 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.
Store protective clothing separately.

Breathing equipment: If workplace exposure limits are exceeded, use respiratory protection according to national regulations.
Use a NIOSH-approved respirator for particulates with N95, P95, or R95 filter, or higher.

Protection of hands: Check protective gloves prior to each use for their proper condition.
Preventive skin protection by use of skin-protecting agents is recommended.

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Material of gloves:	**The selection of suitable gloves depends on the type of job, the characteristics of all substances to be handled and on further marks of quality, which may vary from manufacturer to manufacturer. If the product is used in a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.**
Eye protection:	**Safety glasses**
Body protection:	**Protective work clothing.**

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information	
Physical state	**Solid.**
Color:	**White**
Odor:	**Odorless**
Odor threshold:	**Not relevant**
Melting point/Melting range:	**>1800°C (>3,272°F)**
Boiling point/Boiling range:	**Not relevant**
Flammability:	**Product is not flammable.**
Flash point:	**Not applicable**
Auto igniting:	**Not applicable**
pH-value (100 g/l) at 20°C (68°F):	**6.0 - 9.5**
Viscosity:	
kinematic:	**Not applicable**
Solubility in / Miscibility with	
Water:	**Insoluble**
Partition coefficient (n-octanol/water):	**Not determined**
Vapor pressure:	
Density:	**20°C Anatase 3,9 g/cm³ (30 lbs/ U.S. gal.)** **Rutile 4,2 g/cm³ (35 lbs/U.S. gal.)**
Bulk density at 20°C (68°F):	**500-900 kg/m³**
Vapor density	**Not applicable**
Other information	
Appearance:	
Form:	**Powder**
Important information on protection of health and environment, and on safety.	
Danger of explosion:	**Product is not explosive.**
Evaporation rate	**Not applicable.**

10 Stability and reactivity

Reactivity **The substance is stable under normal use conditions.**

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Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition under normal use conditions.

Possibility of hazardous reactions No dangerous reactions known

Conditions to avoid No further data; see Section 7.

Incompatible materials: No further data; see Section 7.

Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

Information on toxicological effects

Acute toxicity:
LD/LC50 values that are relevant for classification:

CAS: 13463-67-7 Titanium dioxide
Oral LD50 > 5,000 mg/kg (rat) (OECD 425)
Dermal LD50 > 5,000 mg/kg (rabbit)
Inhalative LC50/4h > 6.8 mg/l (rat)

CAS: 77-85-0 Trimethylolethan (TME)
Oral LD50 > 5,000 mg/kg (rat)

Primary irritant effect:
on the skin: OECD 404:
No irritant effect.
No irritant effect
on the eye: OECD 405:
No irritant effect
Like any foreign body, particles (dust) can cause mechanical irritation.

Sensitization: OECD 406, OECD 429
No sensitizing effects.

Subacute to chronic toxicity:

CAS: 13463-67-7 Titanium dioxide
Oral NOAEL 3,500 mg/kg/d (rat) (90 d)
Dermal NOAEL no relevant data available
Inhalative NOAEC 10 mg/m³ (rat) (90 d)

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Carcinogenic categories

IARC (International Agency for Research on Cancer)

All components have the value 3.
3: (not classifiable)

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

Toxicity **Based on available data, the classification criteria are not met.**

Toxicity to fish

CAS: 13463-67-7 Titanium dioxide

LC50 > 10,000 mg/l (Sheepshead minnow)
(semi-static, OECD 203 (acute toxicity for fish))

> 1,000 mg/l (Pimephales promelas)
(static, EPA-540/9-85-006, Acute Toxicity Test for Freshwater Fish)

Toxicity to Daphnia and other aquatic invertebrates

CAS: 13463-67-7 Titanium dioxide

LC50 > 10,000 mg/l (Acartia tonsa)
(ISO 14669 (1999); ISO 5667-16 (1998))

> 1,000 mg/l (Daphnia magna)
(static, OECD 202 (daphnia acute immobilisation test))

Toxicity to algae and aquatic plants

CAS: 13463-67-7 Titanium dioxide

EC50 > 100 mg/l (Pseudokirchneriella subcapitata)
(static, OECD 201 (freshwater alga and cyanobacteria, growth inhibition test))

> 10,000 mg/l (Skeletonema costatum)
(ISO 10253)

Toxicity to sediment organisms

CAS: 13463-67-7 Titanium dioxide

NOEC ≥ 100,000 mg/kg dw (Hyalella azteca)
(semi-static, ASTM 1706)

Persistence and degradability **Not relevant for inorganic substances.**

Bioaccumulative potential **Does not accumulate in organisms**

Mobility in soil **The product is immobile in soil.**

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Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods
Recommendation: Material is not a hazardous waste.
Disposal must be made according to all federal, state, and local (municipal) regulations.

Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

14 Transport information

UN-Number
DOT, ADR/RID/ADN, ADN, IMDG, IATA Not applicable
UN proper shipping name
ADR/RID/ADN, ADN, IMDG, IATA Not applicable
Transport hazard class(es)

DOT, ADR/RID/ADN, ADN, IMDG, IATA
Class Not applicable
Packing group
DOT, ADR/RID/ADN, IMDG, IATA Not applicable
Environmental hazards Not an environmentally hazardous substance.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not relevant
Special precautions for user Not applicable

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15 Regulatory information

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

SARA
Section 355 (Extremely hazardous substances):
None of the ingredients is listed

Section 313 (Specific toxic chemical listings): Product contains traces of toxic chemicals subject to reporting requirements of 40 CFR 372:

None of the ingredients is listed

Section 311 (TIER 1 notification)
None of the ingredients is listed.

TSCA and Canada DSL Status: All components have the value ACTIVE.
CAS: 13463-67-7 Titanium dioxide

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Hazardous Air Pollutants

None of the ingredients is listed.

OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)
New Jersey Right-to-Know List:

All ingredients are listed.
New Jersey Special Hazardous Substance List:

None of the ingredients is listed.
Pennsylvania Right-to-Know List:

CAS: 13463-67-7 Titanium dioxide
Pennsylvania Special Hazardous Substance List:

None of the ingredients is listed.

Carcinogenic categories
EPA (Environmental Protection Agency)

None of the ingredients is listed.
TLV (Threshold Limit Value Notation established by ACGIH)

All components have the value A4.

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16 Other information

This information pertains solely to the identified product and includes our reliance on regulations in effect and information from third parties as of the date hereof. It remains the sole responsibility of the customer to determine the suitability of the product when used in specific processes and applications or combined with other materials and to ensure compliance with all relevant laws, regulations, and standards governing those uses. The provision of this information does not constitute a warranty, guarantee, or representation of any kind. No contractual obligations, either express or implied, are created between KRONOS and any recipient of this information.

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Date of preparation **07/15/2026**

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit

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REL: Recommended Exposure Limit
Reproductive toxicity 2: Reproductive toxicity – Category 2

Sources Material Safety Data Sheet of the manufacturer
REACH-Registration Dossier

*** Data compared to the previous version altered.** Conformes to U.S. OSHA HCS 2024