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# SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

## 1. Identification

### Product identifier

Product No.:	Product name:	Common name(s), synonym(s)
368380	TUBE TRCE PLH 13X100 6.0 PLBL R/BL PLN	BD Vacutainer® Trace Element Serum Blood Collection Tubes

### Recommended restrictions

**Recommended use:** Scientific and industrial laboratory use. For In Vitro Diagnostic Use.

**Restrictions on use:** For External Use Only

### Manufacturer/Importer/Distributor Information

#### Manufacturer

Company Name: BD, Integrated Diagnostic Solutions  
Address: 1 Becton Drive  
Franklin Lakes, NJ 07417  
USA

Telephone: 1 800 631 0174  
Fax: 1 201 847 4866  
Contact Person: Technical Services  
E-mail: productcomplaints@bd.com

**Emergency telephone number:** CHEMTREC 1 800 424 9300

## 2. Hazard(s) identification

### Hazard Classification

#### Health Hazards

Carcinogenicity Category 1A  
Toxic to reproduction Category 2

#### Environmental Hazards

Chronic hazards to the aquatic environment Category 3

### Label Elements

**Hazard Symbol:**

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<b>Signal Word:</b>	Danger
<b>Hazard Statement:</b>	H350: May cause cancer. H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child. H412: Harmful to aquatic life with long lasting effects.
<b>Precautionary Statements</b>	
<b>Prevention:</b>	P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response:</b>	P308+P313: IF exposed or concerned: Get medical advice/attention.
<b>Storage:</b>	P405: Store locked up.
<b>Disposal:</b>	P501: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.
<b>Other hazards which do not result in GHS classification:</b>	None.

### 3. Composition/information on ingredients



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## Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) <sup>*</sup>
Quartz (SiO <sub>2</sub> )	No data available.	14808-60-7	74.025%
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	No data available.	1344-28-1	0.825%
Benzene, methyl-	No data available.	108-88-3	0.1%
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8-octamethyl-	No data available.	556-67-2	0.1%
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.	1309-37-1	0.075%
Titanium oxide (TiO <sub>2</sub> )	No data available.	13463-67-7	0.075%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

### Description of necessary first-aid measures

<b>General information:</b>	Get medical attention if symptoms occur. May cause cancer. Suspected of damaging fertility. Suspected of damaging the unborn child.
<b>Inhalation:</b>	Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.
<b>Skin Contact:</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Eye contact:</b>	Important! Immediately rinse with water for at least 15 minutes. Get medical attention if symptoms occur.
<b>Ingestion:</b>	Rinse mouth thoroughly. Seek medical advice.
<b>Personal Protection for First-aid Responders:</b>	No data available.
<b>Most important symptoms and effects, both acute and delayed</b>	
<b>Symptoms:</b>	No data available.
<b>Hazards:</b>	Low hazard for recommended handling by trained personnel.

### Indication of immediate medical attention and special treatment needed



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**Treatment:** Get medical attention if symptoms occur.

**5. Fire-fighting measures**

**General Fire Hazards:** No unusual fire or explosion hazards noted.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Water spray, fog, CO2, dry chemical, or alcohol resistant foam.

**Unsuitable extinguishing media:** None known.

**Special hazards arising from the substance or mixture:** None known.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No unusual fire or explosion hazards noted.

**Special protective equipment for fire-fighters:** Use fire-extinguishing media appropriate for surrounding materials. Wear self-contained breathing apparatus and protective clothing.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Avoid contact with spilled material. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**Accidental release measures: Methods and material for containment and cleaning up:** No data available. Sweep or scoop up and remove. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**Environmental Precautions:** Do not release into the environment.

**7. Handling and storage**

**Handling**

**Technical measures (e.g. Local and general ventilation):** Observe good industrial hygiene practices. Low hazard for recommended handling by trained personnel.

**Safe handling advice:** Wear appropriate personal protective equipment. Low hazard for recommended handling by trained personnel.

**Contact avoidance measures:** No data available.



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**Storage**

**Safe storage conditions:** Keep containers tightly closed. Keep the container in a safe place. Keep in a cool, well-ventilated place.

**Safe packaging materials:** No data available.

**8. Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
Quartz (SiO <sub>2</sub> ) - Respirable dust.	TWA	0.1 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	0.1 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended
Quartz (SiO <sub>2</sub> )	AN ESL	0.27 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	ST ESL	14 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
Quartz (SiO <sub>2</sub> ) - Respirable dust.	TWA PEL	0.1 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended
Quartz (SiO <sub>2</sub> ) - Total dust.	TWA PEL	0.3 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended
Quartz (SiO <sub>2</sub> ) - Respirable dust.	REL	0.05 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Quartz (SiO <sub>2</sub> ) - Respirable.	TWA	0.1 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended
	TWA	2.4 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended
Quartz (SiO <sub>2</sub> ) - Respirable dust.	OSHA_AC T	0.025 mg/m <sup>3</sup>	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
	TWA	0.05 mg/m <sup>3</sup>	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
Quartz (SiO <sub>2</sub> ) - Respirable dust.	PEL	0.05 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Quartz (SiO <sub>2</sub> )	IDLH	50 mg/m <sup>3</sup>	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
Quartz (SiO <sub>2</sub> ) - Respirable fraction.	TWA	0.025 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values, as amended
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) - Total dust.	TWA	10 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) - Respirable fraction.	TWA	5 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended



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Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) - Total dust.	TWA	10 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) - Respirable fraction.	TWA	5 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	AN ESL	5 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	ST ESL	50 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) - Respirable fraction.	TWA PEL	5 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) - Total dust.	TWA PEL	10 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) - Respirable fraction.	TWA	1 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values, as amended
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) - Total dust.	PEL	15 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) - Respirable fraction.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) - Total dust.	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended
	TWA	15 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) - Respirable fraction.	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended
	TWA	5 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended
Benzene, methyl-	ST ESL	640 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	AN ESL	1,200 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	ST ESL	170 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	AN ESL	330 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	TWA	20 ppm	US. ACGIH Threshold Limit Values, as amended
	REL	100 ppm	375 mg/m <sup>3</sup> US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	STEL	150 ppm	560 mg/m <sup>3</sup> US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	IDLH	500 ppm	US. NIOSH. Immediately Dangerous to Life or



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				Health (IDLH) Values, as amended
	TWA	100 ppm	375 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	150 ppm	560 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	Ceiling	300 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	MAX. CONC	500 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	TWA	200 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	TWA	100 ppm	375 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended
	STEL	150 ppm	580 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended
	Ceiling	500 ppm		US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended
	STEL	150 ppm	560 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended
	TWA PEL	10 ppm	37 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> ) - Fume.	TWA		10 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA		10 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	ST ESL		50 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	AN ESL		5 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> ) - Fume.	TWA PEL		5 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> ) - Respirable fraction.	TWA		5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values, as amended
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> ) - Dust and fume. - as Fe	REL		5 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> ) - Fume.	PEL		10 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> ) - Respirable fraction.	TWA		15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> ) - Total dust.	TWA		15 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended
	TWA		50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> ) -	TWA		5 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000), as



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Respirable fraction.			amended
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	IDLH	2,500 mg/m <sup>3</sup>	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
Titanium oxide (TiO <sub>2</sub> ) - Respirable fraction.	TWA	1 mg/m <sup>3</sup>	US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values, as amended
Titanium oxide (TiO <sub>2</sub> ) - Total dust.	TWA	10 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	10 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended
Titanium oxide (TiO <sub>2</sub> )	ST ESL	50 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	AN ESL	5 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	TWA	10 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values, as amended
Titanium oxide (TiO <sub>2</sub> ) - Total dust.	PEL	15 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Titanium oxide (TiO <sub>2</sub> )	IDLH	5,000 mg/m <sup>3</sup>	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

**Biological Limit Values**

No biological exposure limits noted for the ingredient(s).

**Appropriate Engineering Controls** Observe good industrial hygiene practices. Low hazard for recommended handling by trained personnel.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection:** Avoid contact with eyes and prolonged skin contact. Protective gloves and goggles must be used if there is a risk of direct contact or splash.

**Skin Protection**

**Hand Protection:** Material: Use suitable protective gloves if risk of skin contact.

**Skin and Body Protection:** No data available.

**Respiratory Protection:** No protection is ordinarily required under normal conditions of use and with adequate ventilation.

**Hygiene measures:** Observe good industrial hygiene practices.





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## 9. Physical and chemical properties

### Information on basic physical and chemical properties

#### Appearance

<b>Physical state:</b>	Solid
<b>Form:</b>	Powder
<b>Color:</b>	White
<b>Odor:</b>	Odorless
<b>Odor Threshold:</b>	No data available.
<b>Melting Point:</b>	No data available.
<b>Boiling Point:</b>	No data available.
<b>Flammability:</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Explosive limit - upper:</b>	No data available.
<b>Explosive limit - lower:</b>	No data available.
<b>Flash Point:</b>	No data available.
<b>Self Ignition Temperature:</b>	No data available.
<b>Decomposition Temperature:</b>	No data available.
<b>pH:</b>	No data available.
<b>Viscosity</b>	
<b>Dynamic viscosity:</b>	Not determined.
<b>Kinematic viscosity:</b>	No data available.
<b>Flow Time:</b>	No data available.
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	No data available.
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Relative density:</b>	No data available.
<b>Density:</b>	No data available.
<b>Bulk density:</b>	No data available.
<b>Vapor density (air=1):</b>	No data available.

#### Particle characteristics

<b>Particle Size:</b>	No data available.
<b>Particle Size Distribution:</b>	No data available.
<b>Specific surface area:</b>	No data available.



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<b>Surface charge/Zeta potential:</b>	No data available.
<b>Shape:</b>	No data available.
<b>Crystallinity:</b>	No data available.
<b>Surface treatment:</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	Material is stable under normal conditions.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Material is stable under normal conditions.
<b>Conditions to avoid:</b>	None under normal conditions.
<b>Incompatible Materials:</b>	None under normal conditions.
<b>Hazardous Decomposition Products:</b>	Material is stable under normal conditions.

## 11. Toxicological information

### Information on toxicological effects

<b>Inhalation:</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard. Prolonged breathing of high levels of crystalline silica can cause silicosis. Also, airborne crystalline silica is possibly carcinogenic to humans.
<b>Skin Contact:</b>	Due to the small packaging the risk of skin contact is minimal.
<b>Eye contact:</b>	Due to the small packaging the risk of eye contact is minimal.
<b>Ingestion:</b>	Due to the small packaging the risk of ingestion is minimal.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation:</b>	No specific symptoms noted.
<b>Skin Contact:</b>	Skin irritation is not anticipated when used normally.
<b>Eye contact:</b>	No specific symptoms noted.
<b>Ingestion:</b>	No specific symptoms noted.



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## Information on likely routes of exposure

### Acute toxicity (list all possible routes of exposure)

#### Oral

<b>Product:</b>	No data available.
<b>Components:</b>	
Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	LD 50 (Rat): > 15,900 mg/kg Experimental result, Key study
Benzene, methyl-	LD 50 (Rat): 5,580 mg/kg Experimental result, Key study LD 50 (Rat): > 5,000 mg/kg Experimental result, Supporting study
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8- octamethyl-	LD 50 (Rat): > 4,800 mg/kg Experimental result, Key study LD 50 (Mouse): 1,700 mg/kg Experimental result, Supporting study LD 50 (Rat): > 61,440 mg/kg Experimental result, Supporting study
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	LD 50 (Rat): > 5,000 mg/kg Experimental result, Key study LD 50 (Rat): > 10,000 mg/kg Experimental result, Key study
Titanium oxide (TiO <sub>2</sub> )	LD 50 (Rat): > 25,000 mg/kg Experimental result, Supporting study LD 50 (Rat): > 11,000 mg/kg Experimental result, Supporting study LD 50 (Mouse): > 5,000 mg/kg Experimental result, Key study LD 50 (Rat): > 5,000 mg/kg Experimental result, Key study LD 50 (Rat): > 5,000 mg/kg Experimental result, Supporting study

#### Dermal

<b>Product:</b>	No data available.
<b>Components:</b>	
Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	No data available.
Benzene, methyl-	LD 50 (Rabbit): > 5,000 mg/kg Experimental result, Key study
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8- octamethyl-	LD 50 (Rat): > 2,000 mg/kg Experimental result, Supporting study
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.
Titanium oxide (TiO <sub>2</sub> )	No data available.

#### Inhalation

<b>Product:</b>	No data available.
<b>Components:</b>	
Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	NOAEL (Rat, 4 h): 10 mg/m <sup>3</sup> Aerosol; 2 = reliable with restrictions; Read-across from supporting substance (structural analogue or surrogate), Key study, Aerosol LC 50 (Rat, 1 h): 7.6 mg/l Aerosol; 2 = reliable with restrictions; Experimental result, Key study, Aerosol LC 50 (Rat, 4 h): 25.7 mg/l Vapor; 2 = reliable with restrictions;
Benzene, methyl-	Experimental result, Key study, Vapor LC 50 (Rat, 4 h): 30 mg/l Vapor; 2



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Cyclotetrasiloxane, 2,2,4,4,6,6,8,8-octamethyl-  
Iron oxide (Fe<sub>2</sub>O<sub>3</sub>)  
Titanium oxide (TiO<sub>2</sub>)

= reliable with restrictions; Experimental result, Key study, Vapor LC 50 (Rat, 4 h): 28.1 mg/l Vapor; 2 = reliable with restrictions; Experimental result, Key study, Vapor  
LC 50 (Rat, 4 h): 36 mg/l Aerosol; 1 = reliable without restrictions; Experimental result, Key study, Aerosol  
LC 0 (Rat): > 210 mg/m<sup>3</sup> Aerosol; 2 = reliable with restrictions; Experimental result, Weight of Evidence study, Aerosol  
LC 50 (Rat, 4 h): 5.09 mg/l Inhalation; 2 = reliable with restrictions; Experimental result, Key study, Inhalation LC 50 (Rat, 4 h): > 6.82 mg/l Inhalation; 2 = reliable with restrictions; Experimental result, Key study, Inhalation

**Repeated dose toxicity**

**Product:**

No data available.

**Components:**

Quartz (SiO<sub>2</sub>)

No data available.

Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>)

NOAEL (Rat(Female, Male), Oral, 28 - 53 d): 1,000 mg/kg Read-across from supporting substance (structural analogue or surrogate), Weight of Evidence study Oral

NOAEL (Rat(Female, Male), Oral, > 364 d): 322.5 mg/kg Read-across from supporting substance (structural analogue or surrogate), Weight of Evidence study Oral

LOAEL (Rat(Male), Inhalation): 28 mg/m<sup>3</sup> Read-across from supporting substance (structural analogue or surrogate), Supporting study Inhalation

Benzene, methyl-

LOAEL (Rat(Female, Male), Inhalation, 26 Weeks): 1,500 ppm(m) Not specified, Not specified Inhalation

LOAEL (Rat(Female, Male), Inhalation): 600 ppm(m) Experimental result, Key study Inhalation

NOAEL (Rat(Female, Male), Inhalation): 300 ppm(m) Experimental result, Key study Inhalation

LOAEL (Rat(Female, Male), Inhalation): 4,710 mg/m<sup>3</sup> Experimental result, Key study Inhalation

NOAEL (Rat(Female, Male), Oral, 13 Weeks): 625 mg/kg Experimental result, Key study Oral

Cyclotetrasiloxane, 2,2,4,4,6,6,8,8-octamethyl-

NOAEL (Rat(Female, Male), Inhalation): 2,500 mg/m<sup>3</sup> Experimental result, Supporting study Inhalation

NOAEL (Rat(Female, Male), Inhalation, 13 Weeks): 34 ppm(m) Experimental result, Supporting study Inhalation

NOAEL (Rat(Female, Male), Inhalation, 14 d): >= 400 ppm(m) Experimental result, Supporting study Inhalation

NOAEL (Rat(Female, Male), Inhalation, <= 24 Months): 150 ppm(m) Experimental result, Key study Inhalation

NOAEL (Rat(Female, Male), Oral, 12 Months): >= 1 %(m) Experimental result, Supporting study Oral

Iron oxide (Fe<sub>2</sub>O<sub>3</sub>)

NOAEL (Rat(Male), Inhalation): 10.1 mg/m<sup>3</sup> Read-across based on grouping of substances (category approach), Key study Inhalation

NOAEL (Rat(Female, Male), Inhalation): 4.7 mg/m<sup>3</sup> Read-across based on grouping of substances (category approach), Key study Inhalation

Titanium oxide (TiO<sub>2</sub>)

NOAEL (Rat(Female, Male), Inhalation): 5 mg/m<sup>3</sup> Experimental result,



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Supporting study Inhalation  
NOAEL (Rat(Male), Oral, 29 d): 24,000 mg/kg Experimental result, Key study Oral  
NOAEL (Rat(female), Inhalation): 0.52 mg/m3 Experimental result, Supporting study Inhalation  
NOAEL (Rat(Male), Inhalation): 5 mg/m3 Experimental result, Supporting study Inhalation  
NOAEL (Mouse(female), Inhalation): 9.5 mg/m3 Experimental result, Supporting study Inhalation

### Skin Corrosion/Irritation

**Product:** No data available.  
**Components:**  
Quartz (SiO<sub>2</sub>) No data available.  
Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) No data available.  
Benzene, methyl- No data available.  
Cyclotetrasiloxane, in vivo (Rabbit): Not irritant  
2,2,4,4,6,6,8,8- in vivo (Rabbit): Not irritant  
octamethyl-  
Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) No data available.  
Titanium oxide (TiO<sub>2</sub>) No data available.

### Serious Eye Damage/Eye Irritation

**Product:** No data available.  
**Components:**  
Quartz (SiO<sub>2</sub>) No data available.  
Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) Not irritating in vivo Rabbit, 24 hrs: EU  
Benzene, methyl- Not irritating in vivo Rabbit, 24 - 72 hrs: EU  
Cyclotetrasiloxane, No data available.  
2,2,4,4,6,6,8,8-  
octamethyl-  
Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) Not irritating in vivo Rabbit, 1 - 72 hrs:  
Titanium oxide (TiO<sub>2</sub>) Not irritating in vivo Rabbit, 24 hrs: EU  
Not irritating in vivo Rabbit, 48 - 72 hrs: EU  
Minimal irritant in vivo Rabbit, 24 hrs: EU  
Not irritating in vivo Rabbit, 1 hrs: EU  
Minimal irritant in vivo Rabbit, 48 - 72 hrs: EU  
Not irritating in vivo Rabbit, 24 hrs: EU  
Not irritating in vivo Rabbit, 48 - 72 hrs: EU  
Minimal irritant in vivo Rabbit, 24 - 72 hrs: EU  
Not irritating in vivo Rabbit, 24 - 72 hrs: EU  
Minimal irritant in vivo Rabbit, 1 hrs: EU  
Not irritating in vivo Rabbit, 1 hrs: EU

### Respiratory or Skin Sensitization

**Product:** No data available.  
**Components:**  
Quartz (SiO<sub>2</sub>) No data available.  
Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) Skin sensitization:, in vivo (Guinea pig): Non sensitising  
Benzene, methyl- Skin sensitization:, in vivo (Guinea pig): Non sensitising



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Cyclotetrasiloxane, 2,2,4,4,6,6,8,8-octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.
Titanium oxide (TiO <sub>2</sub> )	Skin sensitization:, in vivo/in vitro (Guinea pig): Non sensitising

**Carcinogenicity**

**Product:** No data available.

**Components:**

Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	No data available.
Benzene, methyl-	No data available.
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8-octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.
Titanium oxide (TiO <sub>2</sub> )	No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Quartz (SiO <sub>2</sub> )	Overall evaluation: 1. Carcinogenic to humans.
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**ACGIH: US.ACGIH Threshold Limit Values:**

Quartz (SiO <sub>2</sub> )	Hazard Designation: Group A2. Suspected human carcinogen.
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**US. National Toxicology Program (NTP) Report on Carcinogens:**

Quartz (SiO <sub>2</sub> )	Known To Be Human Carcinogen.
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**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:**

Quartz (SiO <sub>2</sub> )	Cancer
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**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**Components:**

Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	No data available.
Benzene, methyl-	No data available.
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8-octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.
Titanium oxide (TiO <sub>2</sub> )	No data available.

**In vivo**

**Product:** No data available.

**Components:**

Quartz (SiO <sub>2</sub> )	No data available.
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Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	No data available.
Benzene, methyl-	No data available.
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8- octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.
Titanium oxide (TiO <sub>2</sub> )	No data available.

**Reproductive toxicity**

**Product:** No data available.

**Components:**

Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	No data available.
Benzene, methyl-	No data available.
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8- octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.
Titanium oxide (TiO <sub>2</sub> )	No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Components:**

Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	No data available.
Benzene, methyl-	No data available.
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8- octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.
Titanium oxide (TiO <sub>2</sub> )	No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Components:**

Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	No data available.
Benzene, methyl-	No data available.
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8- octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.
Titanium oxide (TiO <sub>2</sub> )	No data available.

**Aspiration Hazard**

**Product:** No data available.

**Components:**

Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	No data available.
Benzene, methyl-	No data available.



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Cyclotetrasiloxane, 2,2,4,4,6,6,8,8-octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.
Titanium oxide (TiO <sub>2</sub> )	No data available.

### Information on health hazards

#### Other hazards

**Product:** No data available.

## 12. Ecological information

### Ecotoxicity:

#### Acute hazards to the aquatic environment:

#### Fish

**Product:** No data available.

#### Components:

Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	LC 50 (Pimephales promelas, 96 h): 35 mg/l Experimental result, Weight of Evidence study LC 50 (Oncorhynchus mykiss, 96 h): 14.6 mg/l Experimental result, Weight of Evidence study
Benzene, methyl-	LC 50 (Pimephales promelas, 96 h): 33.9 mg/l LC 50 (Fathead minnow (Pimephales promelas), 96 h): 21 - 34 mg/l Mortality LC 50 (Oncorhynchus kisutch, 96 h): 5.5 mg/l Experimental result, Key study
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8-octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	LC 90 (Danio rerio, 96 h): +/- 100,000 mg/l Experimental result, Key study LC 50 (Pimephales promelas, 96 h): 14.4 mg/l Experimental result, Supporting study LC 50 (Oncorhynchus mykiss, 96 h): 18.29 mg/l Experimental result, Supporting study LC 0 (Danio rerio, 96 h): >= 50,000 mg/l Experimental result, Key study LC 50 (Lepomis macrochirus, 96 h): 20 mg/l Experimental result, Supporting study
Titanium oxide (TiO <sub>2</sub> )	EC 50 (96 h): > 9,051 mg/l Experimental result, Not specified NOAEL (Oncorhynchus mykiss, 96 h): >= 100 mg/l Experimental result, Weight of Evidence study LC 50 (Pimephales promelas, 96 h): > 1,000 mg/l Experimental result, Weight of Evidence study LC 50 (Cyprinodon variegatus, 96 h): > 240 - < 370 mg/l Experimental result, Not specified NOAEL (Pimephales promelas, 96 h): >= 1,000 mg/l Experimental result, Weight of Evidence study





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### Aquatic Invertebrates

<b>Product:</b>	No data available.
<b>Components:</b>	
Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	EC 50 (Ceriodaphnia dubia, 48 h): 1.9 mg/l Experimental result, Weight of Evidence study
Benzene, methyl-	LC 50 (Ceriodaphnia dubia, 2 d): 3.78 mg/l Experimental result, Key study
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8-octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	EC 50 (Daphnia magna, 48 h): > 100 mg/l Experimental result, Key study EC 50 (Haliotis rubra, 48 h): 5.11 mg/l Experimental result, Supporting study
Titanium oxide (TiO <sub>2</sub> )	EC 50 (Daphnia magna, 48 h): > 100 mg/l Experimental result, Not specified EC 50 (Water flea (Daphnia magna), 48 h): > 1,000 mg/l Intoxication EC 50 (Daphnia magna, 48 h): > 100 mg/l Experimental result, Supporting study EC 50 (Daphnia magna, 48 h): > 1,000 mg/l Experimental result, Weight of Evidence study EC 50 (Daphnia magna, 48 h): > 1,000 mg/l Experimental result, Weight of Evidence study

### Toxicity to Aquatic Plants

<b>Product:</b>	No data available.
<b>Components:</b>	
Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	No data available.
Benzene, methyl-	No data available.
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8-octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.
Titanium oxide (TiO <sub>2</sub> )	No data available.

### Toxicity to microorganisms

<b>Product:</b>	No data available.
<b>Components:</b>	
Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	No data available.
Benzene, methyl-	No data available.
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8-octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.
Titanium oxide (TiO <sub>2</sub> )	No data available.

### Chronic hazards to the aquatic environment:



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## Fish

<b>Product:</b>	No data available.
<b>Components:</b>	
Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	EC 50 (Pimephales promelas, 7 d): 1.453 mg/l (semi-static) Experimental result, Weight of Evidence study EC 50 (Pimephales promelas, 7 d): 1.861 mg/l (semi-static) Experimental result, Weight of Evidence study
Benzene, methyl-	NOAEL (Oncorhynchus kisutch, 40 d): 1.39 mg/l (flow-through) Experimental result, Key study
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8- octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	NOAEL (Pimephales promelas, 33 d): 1.6 mg/l Experimental result, Supporting study NOAEL (Pimephales promelas, 12 Months): < 1.5 mg/l Experimental result, Supporting study NOAEL (Pimephales promelas, 33 d): 1 mg/l Experimental result, Supporting study NOAEL (Salvelinus fontinalis, 35 Weeks): 6 mg/l Experimental result, Supporting study
Titanium oxide (TiO <sub>2</sub> )	ED 0 (Phoxinus phoxinus, 30 d): >= 1,000 mg/l (Static) Experimental result, Supporting study LC 0 (Coregonus autumnalis migratorius G., 30 d): 3 mg/l (Static) Experimental result, Supporting study

## Aquatic Invertebrates

<b>Product:</b>	No data available.
<b>Components:</b>	
Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	EC 50 (Ceriodaphnia dubia, 7 d): 2.374 mg/l (semi-static) Experimental result, Weight of Evidence study EC 50 (Daphnia magna, 21 d): 1.097 mg/l (semi-static) Experimental result, Weight of Evidence study
Benzene, methyl-	LOAEL (Ceriodaphnia dubia, 7 d): 2.76 mg/l (daily renewal, closed) Experimental result, Key study EC 50 (Ceriodaphnia dubia, 7 d): 3.23 mg/l (daily renewal, closed) Experimental result, Key study
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8- octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	EC 50 (Leptophlebia marginata, 5 d): 8.48 mg/l Experimental result, Supporting study NOAEL (Arrenurus manubriator, 15 d): 800 mg/l (semi-static) Experimental result, Supporting study EC 50 (Leptophlebia marginata, 24 d): 73.07 mg/l Experimental result, Supporting study EC 50 (Leptophlebia marginata, 5 d): 19.84 mg/l Experimental result, Supporting study NOAEL (Daphnia magna, 21 d): 2 mg/l Experimental result, Supporting



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Titanium oxide (TiO<sub>2</sub>) study  
EC 50 (Nitokra spinipes, 13 d): 107.4 mg/l (Partially static renewed, partially continuous) Experimental result, Supporting study  
LC 100 (Daphnia magna, 18 d): 1,000 mg/l (Static) Experimental result, Supporting study  
EC 50 (Nitokra spinipes, 13 d): 2.03 mg/l (Partially static renewed, partially continuous) Experimental result, Supporting study  
EC 100 (Daphnia magna, 30 d): 500 mg/l (Static) Experimental result, Supporting study

**Toxicity to Aquatic Plants**

**Product:** No data available.  
**Components:**  
Quartz (SiO<sub>2</sub>) No data available.  
Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) No data available.  
Benzene, methyl- No data available.  
Cyclotetrasiloxane, No data available.  
2,2,4,4,6,6,8,8-  
octamethyl-  
Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) No data available.  
Titanium oxide (TiO<sub>2</sub>) No data available.

**Toxicity to microorganisms**

**Product:** No data available.  
**Components:**  
Quartz (SiO<sub>2</sub>) No data available.  
Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) No data available.  
Benzene, methyl- No data available.  
Cyclotetrasiloxane, No data available.  
2,2,4,4,6,6,8,8-  
octamethyl-  
Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) No data available.  
Titanium oxide (TiO<sub>2</sub>) No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.  
**Components:**  
Quartz (SiO<sub>2</sub>) No data available.  
Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) No data available.  
Benzene, methyl- 73 % Experimental result, Weight of Evidence study Detected in water.  
86 % Experimental result, Weight of Evidence study Detected in water.  
53 % Experimental result, Weight of Evidence study Detected in water.  
100 % (4 d) Not specified, Not specified Detected in water.  
70 % Experimental result, Weight of Evidence study Detected in water.  
Cyclotetrasiloxane, No data available.  
2,2,4,4,6,6,8,8-  
octamethyl-  
Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) No data available.  
Titanium oxide (TiO<sub>2</sub>) No data available.



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**BOD/COD Ratio**

<b>Product:</b>	No data available.
<b>Components:</b>	
Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	No data available.
Benzene, methyl-	No data available.
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8- octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.
Titanium oxide (TiO <sub>2</sub> )	No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

<b>Product:</b>	No data available.
<b>Components:</b>	
Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	No data available.
Benzene, methyl-	No data available.
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8- octamethyl-	Pimephales promelas, Bioconcentration Factor (BCF): 12,400 Experimental result, Key study Aquatic sediment Pimephales promelas, Bioconcentration Factor (BCF): 13,400 Experimental result, Key study Aquatic sediment
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.
Titanium oxide (TiO <sub>2</sub> )	Oncorhynchus mykiss, Bioconcentration Factor (BCF): 19 Experimental result, Key study Aquatic sediment Oncorhynchus mykiss, Bioconcentration Factor (BCF): 67 Experimental result, Key study Aquatic sediment Oncorhynchus mykiss, Bioconcentration Factor (BCF): 20 Experimental result, Key study Aquatic sediment Cyprinus carpio, Bioconcentration Factor (BCF): 74 Experimental result, Supporting study Aquatic sediment Oncorhynchus mykiss, Bioconcentration Factor (BCF): 34 - 352 Experimental result, Key study Aquatic sediment

**Partition Coefficient n-octanol / water (log Kow)**

<b>Product:</b>	No data available.
<b>Components:</b>	
Quartz (SiO <sub>2</sub> )	No data available.
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	No data available.
Benzene, methyl-	Log Kow: 2.73
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8- octamethyl-	No data available.
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	No data available.
Titanium oxide (TiO <sub>2</sub> )	No data available.

**Mobility in soil:**



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**Product** No data available.  
**Components:**  
Quartz (SiO<sub>2</sub>) No data available.  
Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) No data available.  
Benzene, methyl- No data available.  
Cyclotetrasiloxane, No data available.  
2,2,4,4,6,6,8,8-octamethyl-  
Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) No data available.  
Titanium oxide (TiO<sub>2</sub>) No data available.

**Results of PBT and vPvB assessment:**

**Product** No data available.  
**Components:**  
Quartz (SiO<sub>2</sub>) No data available.  
Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) No data available.  
Benzene, methyl- No data available.  
Cyclotetrasiloxane, No data available.  
2,2,4,4,6,6,8,8-octamethyl-  
Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) No data available.  
Titanium oxide (TiO<sub>2</sub>) No data available.

**Other adverse effects:**

**Other hazards**  
**Product:** No data available.

**13. Disposal considerations**

**Disposal methods:** Dispose of waste and residues in accordance with local authority requirements.

**Contaminated Packaging:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.



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## 14. Transport information

**DOT**UN number or ID number: Not regulated.  
UN Proper Shipping Name: Not regulated.  
Transport Hazard Class(es)  
Class: Not regulated.  
Label(s): Not regulated.  
Packing Group: Not regulated.  
Marine Pollutant: Not regulated.  
Limited quantity: Not regulated.  
Excepted quantity: Not regulated.

Special precautions for user: Not regulated.

### IMDG

UN number or ID number: Not regulated.  
UN Proper Shipping Name: Not regulated.  
Transport Hazard Class(es)  
Class: Not regulated.  
Subsidiary risk: Not regulated.  
EmS No.: Not regulated.  
Packing Group: Not regulated.  
Environmental Hazards  
Marine Pollutant: Not regulated.

Special precautions for user: Not regulated.

### IATA

UN number or ID number: Not regulated.  
Proper Shipping Name: Not regulated.  
Transport Hazard Class(es):  
Class: Not regulated.  
Subsidiary risk: Not regulated.  
Packing Group: Not regulated.  
Environmental Hazards  
Marine pollutant: Not regulated.

Special precautions for user: Not regulated.

## 15. Regulatory information

### US Federal Regulations

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.



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**US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)**

None present or none present in regulated quantities.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended**

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
Quartz (SiO <sub>2</sub> )	kidney effects lung effects Cancer immune system effects

**CERCLA Hazardous Substance List (40 CFR 302.4):**

<u>Chemical Identity</u>
Benzene, methyl-

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**  
Carcinogenicity, Reproductive toxicity

**US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances**

None present or none present in regulated quantities.

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

<u>Chemical Identity</u>
Benzene, methyl-

**US State Regulations**

**US. California Proposition 65**



**WARNING:** This product can expose you to chemicals including, Quartz (SiO<sub>2</sub>)Titanium oxide (TiO<sub>2</sub>) which is [are] known to the State of California to cause cancer.

This product can expose you to chemicals including, Benzene, methyl- which is [are] known to the State of California to cause birth defects or other reproductive harm.

For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



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**US. New Jersey Worker and Community Right-to-Know Act**

**Chemical Identity**

Quartz (SiO<sub>2</sub>)  
Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>)  
Benzene, methyl-  
Cyclotetrasiloxane, 2,2,4,4,6,6,8,8-octamethyl-  
Iron oxide (Fe<sub>2</sub>O<sub>3</sub>)  
Titanium oxide (TiO<sub>2</sub>)

**US. Massachusetts RTK - Substance List**

**Chemical Identity**

Quartz (SiO<sub>2</sub>)

**US. Pennsylvania RTK - Hazardous Substances**

**Chemical Identity**

Quartz (SiO<sub>2</sub>)

**US. Rhode Island RTK**

**Chemical Identity**

Quartz (SiO<sub>2</sub>)

**International regulations**

**Montreal protocol**

Not applicable

**Stockholm convention**

Not applicable

**Rotterdam convention**

Not applicable

**Kyoto protocol**

Not applicable

<b>16. Other information, including date of preparation or last revision</b>
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