

Supersedes date 28-Jan-2025

Revision date 28-Jan-2025

Revision Number 1

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product Name	SALFORD SF-201, SALFORD SF-250, SALFORD SF-260, SALFORD SF-269, SALFORD SF-280, SALFORD SF-288, SALFORD SF-626
EC No (EU Index No)	236-675-5
CAS No	13463-67-67
Synonyms	Titanium dioxide
Pure substance/mixture	Mixture

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Recommended use	Pigment
Uses advised against	For industrial use only

**1.3. Details of the supplier of the safety data sheet****Supplier**

P.O. Box 26, Grimsby,  
N.E. Lincs. UK DN41 8 DP  
tele: +44.1469.571000  
fax: +44.1469.553015

**1.4. Emergency telephone number**

Emergency Telephone	24 Hour Emergency Phone Number CHEMTREC (EMEA): +44 20 3885 0382 CHEMTREC (International): +1 703 527 3887
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United Kingdom	+44 20 3807 3798
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**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP (SI 2020/1567 as amended)**

Not classified

**2.2. Label elements**

Not classified

**Hazard statements**

Not classified.

**2.3. Other hazards****Other hazards**

None known.

**PBT and vPvB assessment**

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

**SECTION 3: Composition/information on ingredients****3.1 Substances**

Not applicable

**3.2 Mixtures**

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Titanium dioxide 13463-67-7	>80%	236-675-5 (022-006-00-2)	1-2119489379-17-XXXX	-	-	-	-

**Full text of H- and EUH-phrases: see section 16****Acute Toxicity Estimate**

In the absence of LD50/LC50 data, the conversion value (converted acute toxicity point estimate) may be indicated here; please note that these values do not represent test results

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Titanium dioxide 13463-67-7	10000	No data available	5.09	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (UK REACH Article 59)

**SECTION 4: First aid measures****4.1. Description of first aid measures****General advice**

No hazards which require special first aid measures.

**Inhalation**

Remove to fresh air. (Call a doctor if symptoms occur).

**Eye contact**

Rinse thoroughly with plenty of water, also under the eyelids.

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<b>Skin contact</b>	Wash skin with soap and water.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required.

**4.2. Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Inhalation of dust in high concentration may cause irritation of respiratory system.
<b>Effects of Exposure</b>	Irritants. See Section 11 for additional Toxicological Information.

**4.3. Indication of any immediate medical attention and special treatment needed**

<b>Note to doctors</b>	Treat symptomatically.
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**SECTION 5: Firefighting measures****5.1. Extinguishing media**

<b>Suitable Extinguishing Media</b>	Product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use extinguishing agent suitable for type of surrounding fire.
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**5.2. Special hazards arising from the substance or mixture**

<b>Specific hazards arising from the chemical</b>	None known.
<b>Hazardous combustion products</b>	Non-combustible.

**5.3. Advice for firefighters**

<b>Special protective equipment and precautions for fire-fighters</b>	Protective equipment and precautions for firefighters.
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**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Ensure adequate ventilation. Avoid contact with skin and eyes. Use personal protective equipment as required.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.
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**6.3. Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Take up mechanically, placing in appropriate containers for disposal.

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**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

#### **6.4. Reference to other sections**

**Reference to other sections** See section 8 for more information. See section 13 for more information.

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

**Advice on safe handling** Ensure adequate ventilation. Avoid contact with skin and eyes. Use personal protection equipment. Wash thoroughly after handling.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended. Take off contaminated clothing and wash it before reuse. Wash hands before breaks and after work.

#### **7.2. Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

#### **7.3. Specific end use(s)**

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

### **SECTION 8: Exposure controls/personal protection**

#### **8.1. Control parameters**

##### **Exposure Limits**

Chemical name	United Kingdom
Titanium dioxide 13463-67-7	TWA: 10 mg/m <sup>3</sup> TWA: 4 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup> STEL: 12 mg/m <sup>3</sup>

**Biological occupational exposure limits** This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL) - Workers**  
No information available

**Derived No Effect Level (DNEL) - General Public**  
No information available

**Predicted No Effect Concentration (PNEC)**  
No information available

#### **8.2. Exposure controls**

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems

**Personal protective equipment**

<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles). Appropriate eye/face protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction.
<b>Hand protection</b>	No special protective equipment required. Appropriate hand protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction. Wash hands before breaks and after work.
<b>Skin and body protection</b>	No special protective equipment required. Appropriate skin and body protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction.
<b>Respiratory protection</b>	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. None under normal use conditions. Appropriate respiratory protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction.
<b>Recommended filter type:</b>	Respiratory protection with a particle filter.
<b>Thermal hazards</b>	None under normal processing.
<b>General hygiene considerations</b>	Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended. Take off contaminated clothing and wash it before reuse. Wash hands before breaks and after work.
<b>Environmental exposure controls</b>	Prevent product from entering drains. See Section 12 for additional Ecological Information.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<b>Physical state</b>	Solid
<b>Appearance</b>	Powder
<b>Colour</b>	white
<b>Odour</b>	None.
<b>Odour threshold</b>	Not applicable

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>
<b>Melting point / freezing point</b>	1830 °C	Melting point / melting range
<b>Boiling point / boiling range</b>	2972 °C	-
<b>Flammability (solid, gas)</b>	No data available	Not flammable
<b>Flammability Limit in Air</b>		Not applicable
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Flash point</b>	No data available	Not applicable
<b>Autoignition temperature</b>	375 °C	Not applicable
<b>Decomposition temperature</b>		Not applicable
<b>pH</b>	6-10	10g/100ml aqueous solution
<b>pH (as aqueous solution)</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	Not applicable
<b>Dynamic viscosity</b>	No data available	Not applicable
<b>Water solubility</b>	Insoluble in water	-

<b>Solubility(ies)</b>	Insoluble in common solvents	-
<b>Partition coefficient</b>	No data available	No data available
<b>Vapour pressure</b>	No data available	Not applicable
<b>Relative density</b>	4.0-4.2	(water = 1)
<b>Bulk density</b>	No information available	
<b>Liquid Density</b>	No data available	
<b>Vapour density</b>	No data available	Not applicable
<b>Particle characteristics</b>		Method: Median equivalent diameter as measured by Laser Diffraction (this value is independent of aerodynamic diameter)
<b>Particle Size</b>	0.5 µm    µm	
<b>Particle Size Distribution</b>	0.3 - 0.7 µm	
<b>Explosive properties</b>	Not an explosive	
<b>Oxidising properties</b>	None known	
<b><u>9.2. Other information</u></b>		
<b>VOC content</b>	None	

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity** Stable.

### 10.2. Chemical stability

**Stability** Stable under normal conditions.

#### **Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** None under normal processing.

**Hazardous polymerisation** None under normal processing.

### 10.4. Conditions to avoid

**Conditions to avoid** None known.

### 10.5. Incompatible materials

**Incompatible materials** None known.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** None known.

## SECTION 11: Toxicological information

### 11.1. Toxicological information

#### Information on likely routes of exposure

##### Product Information

Inhalation	Inhalation of dust in high concentration may cause irritation of respiratory system.
Eye contact	Inert foreign body hazard only.
Skin contact	Repeated exposure may cause skin dryness or cracking.
Ingestion	Not an expected route of exposure.

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

Symptoms	Inhalation of dust in high concentration may cause irritation of respiratory system.
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#### Acute toxicity

##### Numerical measures of toxicity

Based on available data, the classification criteria are not met

##### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide	> 5000 mg/kg ( Rat )	-	> 6,82 mg/L ( Rat ) 4 h

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
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.
Developmental toxicity	Based on available data, the classification criteria are not met.
Teratogenicity	None known.
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.
Other adverse effects	None known.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity** Not considered to be harmful to aquatic life.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Titanium dioxide	ErC50: >100 mg/l (72h, Pseudokirchneriella subcapitata)	LC50: >1000 mg/l (96h, Pimephales promelas)	-	-

### 12.2. Persistence and degradability

**Persistence and degradability** Titanium Dioxide, is an inorganic metal oxide, therefore this does not apply.

### 12.3. Bioaccumulative potential

**Bioaccumulation** None known.

### 12.4. Mobility in soil

**Mobility in soil** Not mobile.

**Mobility** Not mobile.

### 12.5. Results of PBT and vPvB assessment

**PBT and vPvB assessment** This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

### 12.6. Other adverse effects

None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

## SECTION 14: Transport information

### IATA

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable



**14.6 Special Precautions for Users**

<b>Special Provisions</b>	None
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**IMDG**

<b>14.1 UN number or ID number</b>	Not regulated
<b>14.2 EPNM</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not regulated
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	None
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	No information available

**RID**

<b>14.1 UN number or ID number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not regulated
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	None

**ADR**

<b>14.1 UN number or ID number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not regulated
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	None

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (UK REACH - Annex XIV). This product does not contain substances subject to restriction (UK REACH - Annex XVII).

**Persistent Organic Pollutants**

Not applicable

**Export Notification requirements**

Not applicable

**Named dangerous substances per COMAH (SI 2015/483 as amended)**

Not applicable

**The Ozone-Depleting Substances Regulations 2015**

Not applicable

**The Biocidal Products Regulations 2001 (as amended)**

Not applicable

**The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)**  
Not applicable

**Poisons and Explosive Precursors**  
Not applicable

**International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AIIC</b>	Complies
<b>NZIoC</b>	Complies
<b>TCSI</b>	Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AIIC** - Australian Inventory of Industrial Chemicals  
**NZIoC** - New Zealand Inventory of Chemicals  
**TCSI** - Taiwan Chemical Substance Inventory

**15.2. Chemical safety assessment**

**Chemical Safety Report** A Chemical Safety Assessment has been carried out for this substance

**SECTION 16: Other information**

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend**

SVHC: Substances of Very High Concern for Authorisation:  
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances  
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances  
STOT: Specific Target Organ Toxicity  
ATE: Acute Toxicity Estimate  
LC50: 50% Lethal Concentration  
LD50: 50% Lethal Dose

**Legend Section 8: Exposure controls/personal protection**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value Maximum limit value	Sk*	Skin designation
+	Sensitisers		

**Classification procedure**

Expert judgment and weight of evidence determination

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)  
European Chemicals Agency (ECHA) (ECHA\_API)  
Environmental Protection Agency  
Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
National Institute of Technology and Evaluation (NITE)  
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
U.S. National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme  
Organisation for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

<b>Prepared By</b>	Product Stewardship
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<b>Reason for revision</b>	Not applicable
<b>Restrictions on use</b>	This product is not intended for consumption, cosmetic, pharmaceutical or medical end use. Tronox will not knowingly sell product for use into these applications.
<b>Training Advice</b>	This document contains important information to ensure the safe storage, handling and use of this product. It is the responsibility of your organization to ensure that the information contained within this document is communicated to the end user and that all necessary training to enable the product to be used correctly has been given.

**This SDS complies with the requirements of UK REACH Regulations SI 2019/758 (as amended)**

**Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

**Disclaimer**

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.

**End of Safety Data Sheet**