

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

#### 1.1. Product identifier

Product form : Mixture  
Trade name : FLEXICORD - Ti ELITE D 4.75  
Other means of identification : 982104447000

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

##### 1.2.1. Relevant identified uses

Main use category : Industrial use  
Use of the substance/mixture : Flexible cords in thermal spraying processes

##### 1.2.2. Uses advised against

No additional information available

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

Saint-Gobain Coating Solutions  
50 rue du Mourelet, Z.I Courtine Mourre Frais  
P.O. Box BP 90966  
84093 Avignon  
France  
T +33 (0) 4 90 85 85 00 - F +33 (0) 4 90 82 94 52  
[gehs.coating-solutions@saint-gobain.com](mailto:gehs.coating-solutions@saint-gobain.com)

#### 1.4. Emergency telephone number

| Country        | Organisation/Company   | Address                           | Emergency number | Comment                           |
|----------------|--|-----------------------------------|------------------|-----------------------------------|
| United Kingdom | National Poisons Information Service<br>(Birmingham Centre)<br>City Hospital | Dudley Road<br>B18 7QH Birmingham | 0344 892 0111    | Only for healthcare professionals |

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

##### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Contains : TITANIUM DIOXIDE  
EUH-statements : EUH210 - Safety data sheet available on request.  
EUH212 - Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

#### 2.3. Other hazards

Other hazards which do not result in classification : The product is inert in its present form. The organic components of the product are broken down during thermal spraying. The inorganic part is melted and sprayed onto the substrate and will consist of a functional coating. The thermal spray operation must be controlled.

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

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The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

| Name             | Product identifier   | %        | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|------------------|--|----------|---|
| ALUMINA          | CAS-No.: 1344-28-1<br>EC-No.: 215-691-6<br>REACH-no: 01-2119529248-35  | 50 – 100 | Not classified  |
| TITANIUM DIOXIDE | CAS-No.: 13463-67-7<br>EC-No.: 236-675-5<br>EC Index-No.: 022-006-00-2 | 2.5 – 10 | Carc. 2, H351   |
| Glycerol         | CAS-No.: 56-81-5<br>EC-No.: 200-289-5                                  | 2.5 – 10 | Not classified  |

Full text of H- and EUH-statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.  
First-aid measures after skin contact : Wash skin with plenty of water.  
First-aid measures after eye contact : Rinse eyes with water as a precaution.  
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

No additional information available

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store in a well-ventilated place.

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

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

| FLEXICORD - Ti ELITE D 4.75                   |  |
|---|--|
| United Kingdom - Occupational Exposure Limits |  |
| Local name                                    | Titanium dioxide   |
| WEL TWA (OEL TWA) [1]                         | 4 mg/m <sup>3</sup> respirable<br>10 mg/m <sup>3</sup> total inhalable     |
| Regulatory reference                          | EH40/2005 (Fourth edition, 2020). HSE                                      |
| ALUMINA (1344-28-1)                           |  |
| United Kingdom - Occupational Exposure Limits |  |
| Local name                                    | Aluminium oxides   |
| WEL TWA (OEL TWA) [1]                         | 10 mg/m <sup>3</sup> inhalable dust<br>4 mg/m <sup>3</sup> respirable dust |
| Regulatory reference                          | EH40/2005 (Fourth edition, 2020). HSE                                      |

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| TITANIUM DIOXIDE (13463-67-7)                 |  |
|---|--|
| United Kingdom - Occupational Exposure Limits |  |
| Local name                                    | Titanium dioxide   |
| WEL TWA (OEL TWA) [1]                         | 4 mg/m <sup>3</sup> respirable<br>10 mg/m <sup>3</sup> total inhalable |
| Regulatory reference                          | EH40/2005 (Fourth edition, 2020). HSE                                  |
| Glycerol (56-81-5)                            |  |
| United Kingdom - Occupational Exposure Limits |  |
| Local name                                    | Glycerol   |
| WEL TWA (OEL TWA) [1]                         | 10 mg/m <sup>3</sup> mist  |
| Regulatory reference                          | EH40/2005 (Fourth edition, 2020). HSE                                  |

### 8.1.2. Recommended monitoring procedures

No additional information available

### 8.1.3. Air contaminants formed

No additional information available

### 8.1.4. DNEL and PNEC

No additional information available

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

### 8.2.2. Personal protection equipment

#### Personal protective equipment:

Wear ear protection.

#### Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

##### Eye protection:

Safety glasses

#### 8.2.2.2. Skin protection

##### Skin and body protection:

Wear suitable protective clothing

##### Hand protection:

Protective gloves

#### 8.2.2.3. Respiratory protection

##### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

#### 8.2.2.4. Thermal hazards

No additional information available

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### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

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

|   |  |
|---|--|
| Physical state                                  | : Solid  |
| Colour  | : Exterior: pink<br>Interior: brown.               |
| Odour   | : Not available                                    |
| Odour threshold                                 | : Not available                                    |
| Melting point                                   | : 1900 – 1950 °C inorganic                         |
| Freezing point                                  | : Not applicable                                   |
| Boiling point                                   | : Not available                                    |
| Flammability                                    | : Non flammable.                                   |
| Explosive properties                            | : Presents no particular fire or explosion hazard. |
| Explosive limits                                | : Not applicable                                   |
| Lower explosion limit                           | : Not applicable                                   |
| Upper explosion limit                           | : Not applicable                                   |
| Flash point                                     | : Not applicable                                   |
| Auto-ignition temperature                       | : Not applicable                                   |
| Decomposition temperature                       | : Not available                                    |
| pH  | : Not available                                    |
| pH solution                                     | : Not available                                    |
| Viscosity, kinematic                            | : Not applicable                                   |
| Solubility                                      | : Not available                                    |
| Partition coefficient n-octanol/water (Log Kow) | : Not available                                    |
| Vapour pressure                                 | : Not available                                    |
| Vapour pressure at 50 °C                        | : Not available                                    |
| Density   | : Not available                                    |
| Relative density                                | : Not available                                    |
| Relative vapour density at 20 °C                | : 1.95 – 2.15                                      |
| Particle size                                   | : Not available                                    |
| Particle size distribution                      | : Not available                                    |
| Particle shape                                  | : Not available                                    |
| Particle aspect ratio                           | : Not available                                    |
| Particle aggregation state                      | : Not available                                    |
| Particle agglomeration state                    | : Not available                                    |
| Particle specific surface area                  | : Not available                                    |
| Particle dustiness                              | : Not available                                    |

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

Organic solvents : 20-30%

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

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### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

#### ALUMINA (1344-28-1)

LD50 oral rat > 10000 mg/kg Source: ECHA

LC50 Inhalation - Rat (Dust/Mist) > 2.3 mg/l Source: ECHA

#### TITANIUM DIOXIDE (13463-67-7)

LD50 oral rat > 5000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)

LC50 Inhalation - Rat (Dust/Mist) > 3.43 mg/l Source: ECHA

#### Glycerol (56-81-5)

LC50 Inhalation - Rat (Vapours) > 2.75 mg/l Source: ECHA

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)

#### TITANIUM DIOXIDE (13463-67-7)

pH 7

#### Glycerol (56-81-5)

pH 10.5

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)

#### TITANIUM DIOXIDE (13463-67-7)

pH 7

#### Glycerol (56-81-5)

pH 10.5

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

#### TITANIUM DIOXIDE (13463-67-7)

IARC group 2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

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| ALUMINA (1344-28-1)                             |  |
|---|--|
| LOAEC (inhalation, rat,dust/mist/fume, 90 days) | 0.015 mg/l air Animal: rat, Guideline: OECD Guideline 452 (Chronic Toxicity Studies) |
| Aspiration hazard                               | : Not classified (Based on available data, the classification criteria are not met)  |

| FLEXICORD - Ti ELITE D 4.75 |                |
|-----------------------------|----------------|
| Viscosity, kinematic        | Not applicable |

| ALUMINA (1344-28-1)  |                |
|----------------------|----------------|
| Viscosity, kinematic | Not applicable |

| TITANIUM DIOXIDE (13463-67-7) |                |
|-------------------------------|----------------|
| Viscosity, kinematic          | Not applicable |

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

|   |   |
|---|---|
| Ecology - general   | : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| Hazardous to the aquatic environment, short-term (acute)  | : Not classified (Based on available data, the classification criteria are not met)                                     |
| Hazardous to the aquatic environment, long-term (chronic) | : Not classified (Based on available data, the classification criteria are not met)                                     |
| Not rapidly degradable                                    |   |

| ALUMINA (1344-28-1)  |   |
|----------------------|---|
| LC50 - Fish [1]      | 0.078 – 0.108 mg/l Source: ECHA   |
| EC50 72h - Algae [1] | 1.05 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |
| EC50 72h - Algae [2] | 0.2 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)  |
| EC50 96h - Algae [1] | > 0.024 mg/l Source: ECHA   |

| TITANIUM DIOXIDE (13463-67-7) |  |
|-------------------------------|--|
| LC50 - Fish [1]               | 155 mg/l Test organisms (species): other:Japanese Medaka   |
| EC50 - Crustacea [1]          | 19.3 mg/l Test organisms (species): Daphnia magna  |
| EC50 - Crustacea [2]          | 27.8 mg/l Test organisms (species): Daphnia magna  |
| EC50 72h - Algae [1]          | > 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |
| NOEC (chronic)                | ≥ 2.92 mg/l Test organisms (species): Daphnia magna Duration: '21 d'   |

| Glycerol (56-81-5) |   |
|--------------------|---|
| LC50 - Fish [1]    | 54000 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) |

### 12.2. Persistence and degradability

No additional information available

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### 12.3. Bioaccumulative potential

#### Glycerol (56-81-5)

|   |                    |
|---|--------------------|
| Partition coefficient n-octanol/water (Log Pow) | -1.75 Source: ECHA |
|---|--------------------|

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

| ADR                                     | IMDG          | IATA          | ADN           | RID           |
|---|---------------|---------------|---------------|---------------|
| <b>14.1. UN number or ID number</b>     |               |               |               |               |
| Not regulated                           | Not regulated | Not regulated | Not regulated | Not regulated |
| <b>14.2. UN proper shipping name</b>    |               |               |               |               |
| Not regulated                           | Not regulated | Not regulated | Not regulated | Not regulated |
| <b>14.3. Transport hazard class(es)</b> |               |               |               |               |
| Not regulated                           | Not regulated | Not regulated | Not regulated | Not regulated |
| <b>14.4. Packing group</b>              |               |               |               |               |
| Not regulated                           | Not regulated | Not regulated | Not regulated | Not regulated |
| <b>14.5. Environmental hazards</b>      |               |               |               |               |
| Not regulated                           | Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available  |               |               |               |               |

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated



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### Inland waterway transport

Not regulated

### Rail transport

Not regulated

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

##### REACH Annex XVII (Restriction List)

Contains no REACH substances with Annex XVII restrictions

##### REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

##### REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

##### PIC Regulation (Prior Informed Consent)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

##### Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

##### Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Abbreviations and acronyms:

|     |   |
|-----|---|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road             |
| ATE | Acute Toxicity Estimate   |
| BCF | Bioconcentration factor   |
| BLV | Biological limit value  |

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| Abbreviations and acronyms: |  |
|-----------------------------|--|
| BOD                         | Biochemical oxygen demand (BOD)  |
| COD                         | Chemical oxygen demand (COD)   |
| DMEL                        | Derived Minimal Effect level   |
| DNEL                        | Derived-No Effect Level  |
| EC-No.                      | European Community number  |
| EC50                        | Median effective concentration   |
| EN                          | European Standard  |
| IARC                        | International Agency for Research on Cancer                                  |
| IATA                        | International Air Transport Association                                      |
| IMDG                        | International Maritime Dangerous Goods                                       |
| LC50                        | Median lethal concentration  |
| LD50                        | Median lethal dose   |
| LOAEL                       | Lowest Observed Adverse Effect Level   |
| NOAEC                       | No-Observed Adverse Effect Concentration                                     |
| NOAEL                       | No-Observed Adverse Effect Level   |
| NOEC                        | No-Observed Effect Concentration   |
| OECD                        | Organisation for Economic Co-operation and Development                       |
| OEL                         | Occupational Exposure Limit  |
| PBT                         | Persistent Bioaccumulative Toxic   |
| PNEC                        | Predicted No-Effect Concentration  |
| RID                         | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SDS                         | Safety Data Sheet  |
| STP                         | Sewage treatment plant   |
| ThOD                        | Theoretical oxygen demand (ThOD)   |
| TLM                         | Median Tolerance Limit   |
| VOC                         | Volatile Organic Compounds   |
| CAS-No.                     | Chemical Abstract Service number   |
| N.O.S.                      | Not Otherwise Specified  |
| vPvB                        | Very Persistent and Very Bioaccumulative                                     |
| ED                          | Endocrine disrupting properties  |

| Full text of H- and EUH-statements: |  |
|-------------------------------------|--|
| Carc. 2                             | Carcinogenicity, Category 2  |
| EUH210                              | Safety data sheet available on request.  |
| EUH212                              | Warning! Hazardous respirable dust may be formed when used. Do not breathe dust. |
| H351                                | Suspected of causing cancer.   |

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.