

# Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

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

### 1.1. Product identifier

Code: **TFF--150504**  
Product name: **Terraglia Bianca Durezza 4**

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

Intended use: **Forgiatura oggetti ceramica**

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

Name: **COLOROBBLIA ITALIA S.P.A.**  
Full address: **via Pietramarina 53**  
District and Country: **50053 Sovigliana - Vinci (FI) Italia**  
Tel.: **+39 0571 7091**  
Fax: **+39 0571 709.850**

e-mail address of the competent person responsible for the Safety Data Sheet: **ambientemsds@colorobbia.it**

### 1.4. Emergency telephone number

For urgent inquiries refer to:

- CAV - Ospedale Pediatrico Bambino Gesù - Roma - tel. +39 06 68593726**
- Az. Ospedaliera Università Foggia - Foggia - tel. 800183459**
- Az. Ospedaliera - A. Cardarelli- Napoli- tel. +39 081 7472870**
- CAV - Policlinico Umberto I- Roma - tel. +39 06 49978000**
- CAV - Policlinico A. Gemelli - Roma - tel. +39 06 3054343**
- Az. Ospedaliera Careggi - U.O. Tossicologia Medica - Firenze - tel. +39 055 7947819**
- CAV - Centro Nazionale di Informazione Tossicologica - Pavia - tel. +39 0382 24444**
- Ospedale Niguarda Ca' Granda - Milano - tel. +39 02 66101029**
- Az. ospedaliera Papa Giovanni XXIII - Bergamo - tel. 800883300**

## SECTION 2. Hazards identification

### 2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).

Hazard classification and indication: --

### 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal words: --

Hazard statements:  
**EUH210** Safety data sheet available on request.  
**EUH212** Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Precautionary statements: --

### 2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

**SECTION 3. Composition/information on ingredients**

**3.2. Mixtures**

Contains:

Identification                      **x = Conc. %**                      **Classification 1272/2008 (CLP)**

**QUARTZ**

CAS                      14808-60-7      40 ≤ x < 60

EC                      238-878-4

INDEX

**ALUMINA**

CAS                      1344-28-1      9 ≤ x < 25

EC                      215-691-6

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Reg. no.                      01-2119817795-27

**magnesium oxide**

CAS                      1309-48-4      5 ≤ x < 9

EC                      215-171-9

INDEX

**TITANIUM DIOXIDE**

CAS                      13463-67-7      1 ≤ x < 5

EC                      236-675-5

INDEX

Reg. no.                      01-2119489379-17-0000

The full wording of hazard (H) phrases is given in section 16 of the sheet.

**SECTION 4. First aid measures**

**4.1. Description of first aid measures**

Not specifically necessary. Observance of good industrial hygiene is recommended.

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

Specific information on symptoms and effects caused by the product are unknown.

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

in the event of an accident or if you feel unwell, contact a beggar or a poison center

**SECTION 5. Firefighting measures**

**5.1. Extinguishing media**

SUITABLE EXTINGUISHING EQUIPMENT

Choose the most appropriate extinguishing equipment for the specific case.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

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

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

The product is neither flammable nor combustible.

**5.3. Advice for firefighters**

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures**

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

Use breathing equipment if fumes or powders are released into the air. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

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

Confine using earth or inert material. Collect as much material as possible and eliminate the rest using jets of water. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

**6.4. Reference to other sections**

Any information on personal protection and disposal is given in sections 8 and 13.

**SECTION 7. Handling and storage**

**7.1. Precautions for safe handling**

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

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

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

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

Information not available

**SECTION 8. Exposure controls/personal protection**

**8.1. Control parameters**

Regulatory References:

|     |                             |   |
|-----|-----------------------------|---|
| BGR | България                    | МИНИСТЕРСТВО НА ТРУДА И СОЦИАЛНАТА ПОЛИТИКА МИНИСТЕРСТВО НА ЗДРАВЕОПАЗВАНЕТО НАРЕДБА No 13 от 30 декември 2003 г (4 Септември 2018г)  |
| CZE | Česká Republika             | Nařízení vlády č. 246/2018 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů   |
| DEU | Deutschland                 | TRGS 900 - Seite 1 von 69 (Fassung 29.03.2019)- Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte  |
| ESP | España                      | LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)  |
| FRA | France                      | Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS  |
| GRC | Ελλάδα                      | ΕΦΗΜΕΡΙΔΑ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 152 - 21 Αυγούστου 2018   |
| POL | Polska                      | ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r   |
| ROU | România                     | HOTĂRÂRE nr. 584 din 2 august 2018 pentru modificarea Hotărârii Guvernului nr. 1.218/2006 privind stabilirea cerințelor minime de securitate și sănătate în muncă pentru asigurarea protecției lucrătorilor împotriva riscurilor legate de prezența agenților chimici |
| GBR | United Kingdom<br>TLV-ACGIH | EH40/2005 Workplace exposure limits (Third edition, published 2018)<br>ACGIH 2020   |

**SECTION 8. Exposure controls/personal protection ... / >>**

**QUARTZ**

**Threshold Limit Value**

| Type      | Country | TWA/8h |     | STEL/15min |     | Remarks / Observations |
|-----------|---------|--------|-----|------------|-----|------------------------|
|           |         | mg/m3  | ppm | mg/m3      | ppm |                        |
| TLV       | CZE     | 0,1    |     |            |     |                        |
| AGW       | DEU     | 0,15   |     |            |     |                        |
| VLA       | ESP     | 0,05   |     |            |     |                        |
| VLEP      | FRA     | 0,1    |     |            |     | RESP                   |
| NDS/NDSch | POL     | 2      |     |            |     | INHAL                  |
| NDS/NDSch | POL     | 0,3    |     |            |     | RESP                   |
| WEL       | GBR     | 0,3    |     |            |     |                        |
| TLV-ACGIH |         | 0,025  |     |            |     |                        |

**ALUMINA**

**Threshold Limit Value**

| Type      | Country | TWA/8h |     | STEL/15min |     | Remarks / Observations |
|-----------|---------|--------|-----|------------|-----|------------------------|
|           |         | mg/m3  | ppm | mg/m3      | ppm |                        |
| TLV       | BGR     | 2      |     |            |     | като алуминий          |
| MAK       | DEU     | 4      |     |            |     | INHAL                  |
| MAK       | DEU     | 1,5    |     |            |     | RESP                   |
| VLA       | ESP     | 10     |     |            |     |                        |
| VLEP      | FRA     | 10     |     |            |     |                        |
| TLV       | GRC     |        | 10  |            |     |                        |
| NDS/NDSch | POL     | 2,5    |     |            |     | INHAL Na Al            |
| NDS/NDSch | POL     | 1,2    |     |            |     | RESP Na Al             |
| TLV       | ROU     | 2      |     | 5          |     | Aerosoli               |
| WEL       | GBR     |        | 10  |            |     | INHAL                  |
| TLV-ACGIH |         | 1      | 0,9 |            |     |                        |

**Health - Derived no-effect level - DNEL / DMEL**

| Route of exposure | Effects on consumers |                |               |                  | Effects on workers |                |               |                  |
|-------------------|----------------------|----------------|---------------|------------------|--------------------|----------------|---------------|------------------|
|                   | Acute local          | Acute systemic | Chronic local | Chronic systemic | Acute local        | Acute systemic | Chronic local | Chronic systemic |
| Oral              | 6,2 mg/kg/d          | VND            |               |                  |                    |                |               |                  |
| Inhalation        | 15,6 mg/mc           | VND            |               |                  |                    |                |               | 15,63 mg/m3      |

**magnesium oxide**

**Threshold Limit Value**

| Type      | Country | TWA/8h |     | STEL/15min |     | Remarks / Observations |
|-----------|---------|--------|-----|------------|-----|------------------------|
|           |         | mg/m3  | ppm | mg/m3      | ppm |                        |
| NDS/NDSch | POL     | 10     |     |            |     |                        |
| TLV-ACGIH |         | 10     |     |            |     |                        |

**TITANIUM DIOXIDE**

**Threshold Limit Value**

| Type      | Country | TWA/8h |     | STEL/15min |     | Remarks / Observations |
|-----------|---------|--------|-----|------------|-----|------------------------|
|           |         | mg/m3  | ppm | mg/m3      | ppm |                        |
| TLV       | BGR     | 10     |     |            |     | RESP                   |
| VLA       | ESP     | 10     |     |            |     |                        |
| VLEP      | FRA     | 10     |     |            |     |                        |
| TLV       | GRC     |        | 10  |            |     |                        |
| NDS/NDSch | POL     | 10     |     |            |     | INHAL                  |
| TLV       | ROU     | 10     |     | 15         |     |                        |
| WEL       | GBR     | 10     |     |            |     | INHAL                  |
| WEL       | GBR     | 4      |     |            |     | RESP                   |
| TLV-ACGIH |         | 10     |     |            |     |                        |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.  
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

**8.2. Exposure controls**

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

**SECTION 8. Exposure controls/personal protection ... / >>**

When choosing personal protective equipment, ask your chemical substance supplier for advice. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

**HAND PROTECTION**

In the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (see standard EN 374). Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.

**SKIN PROTECTION**

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

**EYE PROTECTION**

Wear airtight protective goggles (see standard EN 166).

**RESPIRATORY PROTECTION**

None required, unless indicated otherwise in the chemical risk assessment.

**ENVIRONMENTAL EXPOSURE CONTROLS**

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

**SECTION 9. Physical and chemical properties**

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

| Properties                             | Value             | Information |
|--|-------------------|-------------|
| Appearance                             | solid             |             |
| Colour                                 | Not available     |             |
| Odour                                  | odourless         |             |
| Odour threshold                        | Not available     |             |
| pH                                     | Not available     |             |
| Melting point / freezing point         | 0 °C              |             |
| Initial boiling point                  | Not available     |             |
| Boiling range                          | Not available     |             |
| Flash point                            | Not applicable    |             |
| Evaporation Rate                       | Not available     |             |
| Flammability of solids and gases       | Not available     |             |
| Lower inflammability limit             | Not applicable    |             |
| Upper inflammability limit             | Not applicable    |             |
| Lower explosive limit                  | Not applicable    |             |
| Upper explosive limit                  | Not applicable    |             |
| Vapour pressure                        | Not available     |             |
| Vapour density                         | Not available     |             |
| Relative density                       | Not available     |             |
| Solubility                             | partially soluble |             |
| Partition coefficient: n-octanol/water | Not available     |             |
| Auto-ignition temperature              | Not applicable    |             |
| Decomposition temperature              | Not available     |             |
| Viscosity                              | Not applicable    |             |
| Explosive properties                   | Not available     |             |
| Oxidising properties                   | Not available     |             |

**9.2. Other information**

Information not available

**SECTION 10. Stability and reactivity**

**10.1. Reactivity**

There are no particular risks of reaction with other substances in normal conditions of use.

**10.2. Chemical stability**

The product is stable in normal conditions of use and storage.

**10.3. Possibility of hazardous reactions**

No hazardous reactions are foreseeable in normal conditions of use and storage.

**SECTION 10. Stability and reactivity ... / >>**

**10.4. Conditions to avoid**

None in particular. However the usual precautions used for chemical products should be respected.

**10.5. Incompatible materials**

Information not available

**10.6. Hazardous decomposition products**

Information not available

**SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

**QUARTZ**

Information relating to free silicon monoxide:

- once inhaled into the lungs, free crystalline silica dust can cause silicosis. More frequently, there is a development of phenomena mainly characterised by an obstructive component.

**11.1. Information on toxicological effects**

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

|                                  |   |
|----------------------------------|---|
| ATE (Inhalation) of the mixture: | Not classified (no significant component) |
| ATE (Oral) of the mixture:       | Not classified (no significant component) |
| ATE (Dermal) of the mixture:     | Not classified (no significant component) |

**TITANIUM DIOXIDE**

LD50 (Oral) > 10000 mg/kg Rat

**ALUMINA**

LD50 (Oral) > 2000 mg/kg rat  
 LC50 (Inhalation) 7,6 mg/l/4h rat

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

**SECTION 11. Toxicological information ... / >>**

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

**SECTION 12. Ecological information**

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

**12.1. Toxicity**

Information not available

**12.2. Persistence and degradability**

TITANIUM DIOXIDE  
 Solubility in water < 0,001 mg/l  
 Degradability: information not available

ALUMINA  
 Degradability: information not available

**12.3. Bioaccumulative potential**

Information not available

**12.4. Mobility in soil**

Information not available

**12.5. Results of PBT and vPvB assessment**

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

**12.6. Other adverse effects**

Information not available

**SECTION 13. Disposal considerations**

**13.1. Waste treatment methods**

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.  
 Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.  
**CONTAMINATED PACKAGING**  
 Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.





**SECTION 15. Regulatory information ... / >>**

**15.2. Chemical safety assessment**

A chemical safety assessment has been performed for the following contained substances  
TITANIUM DIOXIDE

**SECTION 16. Other information**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

|               |  |
|---------------|--|
| <b>EUH210</b> | Safety data sheet available on request.  |
| <b>EUH212</b> | Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist. |

**LEGEND:**

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

**GENERAL BIBLIOGRAPHY**

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
  2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
  3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
  4. Regulation (EU) 2015/830 of the European Parliament
  5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
  6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
  7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
  8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
  9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
  10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
  11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
  12. Regulation (EU) 2016/1179 (IX Atp. CLP)
  13. Regulation (EU) 2017/776 (X Atp. CLP)
  14. Regulation (EU) 2018/669 (XI Atp. CLP)
  15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
  16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - INRS - Fiche Toxicologique (toxicological sheet)
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
  - IFA GESTIS website
  - ECHA website

**SECTION 16. Other information ... / >>**

- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

**CALCULATION METHODS FOR CLASSIFICATION**

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

**Frits belonging to various groups:**

Group 1: Ceramic frits containing general elements that are not included in Annex I of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation,

without Pb, Ba, Zn and Cd.

Group 2: Ceramic frits containing general elements that are not included in Annex I of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation, with Zn and without Pb, Ba or Cd.

Group 3: Ceramic frits containing general elements that are not included in Annex I of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation, with Ba and without Pb, Zn or Cd.

Group 4: Ceramic frits containing general elements that are not included in Annex I of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation, with Zn and Ba and without Pb or Cd.

Group 5: Ceramic frits containing general elements that are not included in Annex I of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation, with Pb and without Cd.

Group 5.1 Lead Bisilicates ( $0\% < \text{PbO} \leq 69\%$ ;  $\text{SiO}_2 \geq 30\%$ ;  $\text{Al}_2\text{O}_3 \geq 1\%$ ).

Group 5.2 Lead Borosilicates ( $0-69\% \text{PbO}$ ,  $\text{SiO}_2 \geq 30\%$ ,  $\text{Al}_2\text{O}_3 \geq 0,5\%$ ,  $\text{B}_2\text{O}_3 > 0\%$ )

Group 6: Ceramic frits containing general elements that are not included in Annex I of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation, with Pb and Zn and/or Ba ( $0 < \text{PbO} \leq 69$ ;  $\text{SiO}_2 \geq 30$ ;  $\text{Al}_2\text{O}_3 \geq 1$ )

Group 7: Ceramic frits containing general elements that are not included in Annex I of Directive 67/548/EEC and with Cd and some of the elements Zn, Ba, and Pb ( $0 < \text{PbO} < 69$ ;  $0 < \text{CdO} \leq 5$ ;  $\text{SiO}_2 \geq 30$ ;  $\text{Al}_2\text{O}_3 \geq 1$ )

Group 8 – frits containing lead expressed in % PbO and/or Cd expressed in % CdO, containing general elements that are not included in annex 1 of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation (Zr, Si, Al, Mg, Ca, K, Na, etc.), that are not included in the their groups definition.

8.1 : lead monosilicates frits ( $0,05\% < \text{PbO} < 80\%$ ;  $\text{SiO}_2 < 30\%$ ;  $\text{Al}_2\text{O}_3 < 1\%$ )

8.2 : lead borosilicates frits ( $0,05\% < \text{PbO} < 80\%$ ;  $\text{SiO}_2 < 30\%$ ;  $\text{Al}_2\text{O}_3 < 0,5\%$ ;  $\text{B}_2\text{O}_3 > 0\%$ )

8.3 : lead and cadmium frits ( $0,05\% < \text{PbO} < 80\%$ ;  $0\% < \text{Cd} < 5\%$ ;  $\text{SiO}_2 < 30\%$  o  $0,05\% \text{PbO} < 80\%$ ;  $5\% < \text{CdO} < 24\%$ )

Group 9 – coloured frits generally containing elements which are not listed in annex 1 of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation (Zr, Si, Al, Mg, Ca, K, Na, etc.), and same metallic oxides listed in annex 1 of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation :

9.1 : frits Ni ( $0\% < \text{NiO} \leq 3,8\%$ )

9.2 : frits Ni ( $3,8\% < \text{NiO} \leq 15\%$ )

9.3 : frits V ( $0\% < \text{V}_2\text{O}_5 < 15,5\%$ )

9.4 : frits Cd ( $5\% < \text{CdO} < 28\%$ )

Group 10 and subgroups - frits that contain B, Se, Sb and Co.

10.0 :  $\text{SiO}_2 \geq 30\%$ ;  $\text{Al}_2\text{O}_3 \geq 0,5$ ;  $0\% < \text{B}_2\text{O}_3 \leq 34$ ;

10.1 :  $\text{SiO}_2 \geq 30\%$ ;  $\text{Al}_2\text{O}_3 \geq 1\%$ ;  $\text{B}_2\text{O}_3 = 0$ ;  $0 < \text{Se} \leq 1,5\%$ ; o  $\text{SiO}_2 \geq 30$ ;  $\text{Al}_2\text{O}_3 \geq 0,5$ ;  $0 < \text{B}_2\text{O}_3 \leq 34\%$ ;  $0 < \text{Se} \leq 1,5\%$

10.2 :  $\text{SiO}_2 \geq 30\%$ ;  $\text{Al}_2\text{O}_3 \geq 1$ ;  $\text{B}_2\text{O}_3 = 0$ ;  $0 < \text{Sb}_2\text{O}_3 \leq 2$ ; o  $\text{SiO}_2 \geq 30\%$ ;  $\text{Al}_2\text{O}_3 \geq 0,5$ ;  $0 < \text{B}_2\text{O}_3 \leq 34$ ;  $0 < \text{Sb}_2\text{O}_3 \leq 2$ ;

10.3 :  $\text{SiO}_2 \geq 30\%$ ;  $\text{Al}_2\text{O}_3 \geq 1$ ;  $\text{B}_2\text{O}_3 = 0$ ;  $0 < \text{Co}_3\text{O}_4 \leq 2$  o  $\text{SiO}_2 \geq 30\%$ ;  $\text{Al}_2\text{O}_3 \geq 0,5$ ;  $0 < \text{B}_2\text{O}_3 \leq 34$ ;  $0 < \text{Co}_3\text{O}_4 \leq 2$ ;

**Changes to previous review:**

The following sections were modified:

01 / 02 / 03 / 04 / 06 / 08 / 11 / 13 / 16.