Material Safety Datasheet


1. Material and Company Identification

1.1 Identification of the material

PETG/4C-M Natural (KTA2014/301)

This materials code is given on each minimal packaging size (bag or octabin).

1.2 Typical use of the material

Primarily used for extrusion or injection moulding plastic parts.

1.3 Identification of the company

This material has been produced for:

colorFabb
Noorderpoort 45
5916 PJ VENLO
The Netherlands
Tel: + 31 (0)77 - 398 09 09

1.4 Emergency telephone number

Within office hours: + 31 (0)77 - 398 09 09.

2. Hazards Identification

2.1 Classification of the substance or mixture


Not classified as dangerous for supply/use.

2.1.2 Regulation (EC) No. 1272/2008 (CLP)

Not classified as dangerous for supply/use.

2.2 Label elements

Not applicable.

2.3. Other hazards

Danger of burns while handling the heated or molten product.

3. Composition/Information on Ingredients

Chemical nature: Electrically conductive PETG copolyester, with milled carbon fibre reinforcement and proprietary additivation.

4. First Aid Measures

4.1 If inhaled

After inhalation of decomposition products, bring the affected person to a source of fresh air and keep calm. Provide medical aid.

4.2 On skin contact

Areas affected by molten material should be quickly placed under cold running water. Burns caused by molten material require hospital treatment.

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Website: colorfabb.com
4.3 On contact with eyes
In case of contact with eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek immediate medical attention.

4.4 On ingestion
Rinse mouth and then drink plenty of water. If difficulties occur, seek medical attention.

4.5 Note to the physician
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire Fighting Measures
5.1 Suitable extinguishing media
Dry extinguishing media, foam, water spray or fog.

5.2 Specific hazards
Carbon monoxide (CO), carbon dioxide (CO2), aldehydes, and traces of aliphatic and aromatic hydrocarbons. The substances/groups of substances mentioned can be released at elevated temperatures (above 270 °C) and in case of fire.

5.3 Special protective equipment
Full protective clothing and self contained breathing apparatus.

5.4 Further information
Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures
6.1 Personal precautions
Avoid inhalation. Sources of ignition should be kept well clear.

6.2 Environmental precautions
Prevent entry into drains.

6.3 Methods for cleaning up or taking up
Sweep/shovel up. Avoid raising dust. Ensure adequate ventilation.

6.4 Additional information
High risk of slipping due to leakage/spillage of product.

6.5 Reference to other sections
See also section 8 and 13.

7. Handling and Storage
7.1 Handling
Avoid contact with heated or molten product. Avoid dust formation. Dust can form an explosive mixture with air. Provide exhaust ventilation. Processing machines must be fitted with local exhaust ventilation. When the product is ground (chopped), dust explosion regulations should be noted.

7.2 Storage
Protect against moisture. Store material in dry rooms and always carefully seal again after portions of material have been withdrawn. Store at ambient temperatures. Avoid all source of ignition: heat, sparks, open flame.

7.3. Specific end use(s)
Primarily used for injection moulding plastic parts.

8. Exposure Controls and Personal Protection
8.1 Control parameters

8.1.1 Occupational Exposure Limits:
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Given suitable ventilation, it can be assumed that the threshold limits will not be reached.


**Dust (inhaling and respirable fraction):**

- PEL (OSHA) 15 mg/m$^3$ (8 hr. TWA) Total dust
- PEL (OSHA) 5 mg/m$^3$ (8 hr. TWA) Respirable Dust
- TLV (ACGIH) 10 mg/m$^3$ Inhalable particles
- TLV (ACGIH) 3 mg/m$^3$ Respirable particles
- TWA Respirable dust 5 mg/m$^3$ (MAC, NL, revision 2007)
- TWA Inhalable dust 10 mg/m$^3$ (MAC, NL, revision 2007)

**Carbon fibre (CAS nr. 308063-67-4 / 7440-44-0):**
Long term exposure: 0.5 mg/m3, fibres/ml (respirable fibres)

**8.2 Exposure controls**

**8.2.1 Appropriate engineering controls**
Provide adequate ventilation.

**8.2.2 Personal protective equipment**

- **Respiratory protection (only when dust has formed):**
  Particle filter Type P1 or FFP1 (low efficiency for solid particles e.g. EN143, 149).

- **Hand protection:**
  Use additional heat protection gloves when handling hot molten product (e.g. of textile or leather).

- **Eye protection:**
  Safety glasses with side-shields (frame goggles) (EN 166).

- **Body protection:**
  Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical protection suit (according to DIN-EN 465).

**General safety and hygiene measures:**
Avoid contact of molten material with skin. Avoid inhalation of dust/mists/vapours. Eye wash fountains and safety showers must be easily accessible. Handle in accordance with good industrial hygiene and safety practice.

**8.2.3 Environmental exposure controls**
Prevent entry into drains.

**9. Physical and Chemical Properties**

**9.1 Information on basic and chemical properties**

- **Form:** Granules.
- **Colour:** Black.
- **Odour:** Odourless
- **Softening point:** > 100 °C
- **Auto-ignition temperature:** not specified
- **Density:** 1.35 g/cm$^3$ (20°C, 1 bar)
- **Solubility in water:** Insoluble.

**10. Stability and Reactivity**

**10.1 Conditions to avoid**
Avoid extreme heat. Avoid all sources of ignition: heat, sparks, open flame.

**10.1.1 Thermal decomposition**
Above 270°C. To avoid thermal decomposition, do not overheat. See on the technical datasheet for the appropriate processing temperatures.

**10.2 Substances to avoid**
Material Safety Datasheet

Strong acids, oxidating agents.

10.3 Hazardous reactions
The product is chemically stable.

10.3.1 Hazardous decomposition products
Carbon monoxide (CO), carbon dioxide (CO2), aldehydes, and other gaseous products of degradation can be given off if the product is greatly overheated.

11. Toxicological Information
11.1 Information on toxicological effects
Toxicological data has not been determined for this product. Information is based on similar products.

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No data available, but not expected.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No data available, but not expected.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No data available, but not expected.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>No data available, but not expected.</td>
</tr>
<tr>
<td>Irritation</td>
<td>Not expected to be irritating.</td>
</tr>
<tr>
<td>Sensitization</td>
<td>Not expected to be a skin sensitizer.</td>
</tr>
<tr>
<td>Repeated dose toxicity</td>
<td>Not expected to cause toxic effects.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No data, but not expected.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>No data, but not expected.</td>
</tr>
<tr>
<td>Toxicity for reproduction</td>
<td>No data, but not expected.</td>
</tr>
</tbody>
</table>

11.2 Other information
Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for the designated uses.

12. Ecological Information
12.1 Information on ecotoxicity
No ecotoxicological data has been generated for this product. Information is based on similar products.

12.1.1 Acute toxicity
Non-toxic to aquatic life.

12.2 Mobility in soil
The product is essentially insoluble in water. The product has low mobility in soil. Sinks in water.

12.3 Persistence and degradability
Assessment: No data available concerning biodegradation and elimination.

12.4 Bioaccumulation potential
The product will not be readily bioavailable due to its consistency and insolubility in water.

12.5 Results of PBT and vPvB assessment
Not classified as PBT or vPvB.

12.6 Effect on Effluent Treatment
No information available.

13. Disposal Considerations
13.1 Waste treatment methods
Must be removed or incinerated in accordance with local, state or national legislation. Consider also return to the supplier.
14. Transport Information
14.1 International Air Transportation Association Classification (IATA)
This product is not classified as hazardous.

14.2 International Maritime Organization (IMDG)
This product is not classified as hazardous.

14.3 UN, IMO, ADR/RID, ICAO Code
This product is not classified as hazardous.

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

15.1.1 EU regulations
Authorisations and/or restrictions on use: None known.

15.1.2 National regulations
None known.

15.2 Chemical safety assessment
Not available.

16. Other Information

LEGEND
PEL: Permissible Exposure Limit
MAC: Maximum Allowed Concentration
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent very Bioaccumulative

In addition to the information given in the safety data sheet we refer to the products specific ‘Technical Datasheet’.

Disclaimer
The information given in the Material Safety Data Sheet only applies to the described product in connection with its appropriate use. All information is based on the latest state of our knowledge. In particular, it describes our product under the aspect of possible hazards and pertaining safety measures. The information does not constitute any guarantee of specific product and/or quality properties. The information given in this Material Safety Data Sheet is not required according to article 31 and Annex II of Regulation (EC) No.1907/2006. It merely serves the purpose of providing sufficient information on a voluntary basis to ensure safe use of the compound/product. There is no obligation on the part of colorFabb to revise this document.