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

1.1. Product identifier

PREMARK®

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

Use of the substance/mixture
Thermoplastic marking material

Uses advised against
No hazardous reaction when handled and stored according to provisions.

1.3. Details of the supplier of the safety data sheet

Company name: Geveko Markings Denmark A/S
Street: Longelsevej 34
Place: DK-5900 Rudkøbing
Telephone: +45 6351 7171
Telefax: +45 6351 7182
Contact person: Product Management
e-mail: msds@gevekomarkings.com
Internet: www.geveko-markings.com
Responsible Department: Product Management

1.4. Emergency telephone number:

National Poisons Information Service London: +44 (0) 20 76 35 91 91 (24 hrs.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008
This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2.2. Label elements

Regulation (EC) No. 1272/2008
Special labelling of certain mixtures
EUH210 Safety data sheet available on request.

2.3. Other hazards

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization
Thermoplastic marking material
Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>EC No</th>
<th>Index No</th>
<th>REACH No</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>14808-60-7</td>
<td>Quartz sand (SiO2)</td>
<td></td>
<td>238-878-4</td>
<td></td>
<td>25 - 50%</td>
</tr>
<tr>
<td>13463-67-7</td>
<td>Titanium dioxide</td>
<td></td>
<td>236-675-5</td>
<td>01-2119489379-17</td>
<td>5 - &lt; 10%</td>
</tr>
</tbody>
</table>

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation
Avoid breathing dust/fume/gas/mist/vapours/spray.

After contact with skin
Rinse skin with water [or shower]. Seek medical attention if problems persist.

After contact with eyes
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After ingestion
Rinse mouth immediately and drink plenty of water.

4.2. Most important symptoms and effects, both acute and delayed
No known symptoms to date.

4.3. Indication of any immediate medical attention and special treatment needed
Burns caused by molten material must be treated clinically.
In all cases of doubt, or when symptoms persist, seek medical advice.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Carbon dioxide (CO2), ABC-powder, Foam or Water spray.

Unsuitable extinguishing media
Strong water jet

5.2. Special hazards arising from the substance or mixture
Thermal decomposition can lead to the escape of irritating gases and vapors. In case of inhalation of decomposition products, affected person should be moved into fresh air and kept still.

5.3. Advice for firefighters
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Additional information
Contaminated fire-fighting water must be collected separately.
Prevent penetration into soil, drains and surface waters.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
Provide adequate ventilation. Wash hands before breaks and after work.

6.2. Environmental precautions
Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up
Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
Use only outdoors or in a well-ventilated area.

Advice on protection against fire and explosion
Keep away from sources of ignition - No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep away from sources of ignition - No smoking.

Further information on storage conditions
Store in a cool dry place.

7.3. Specific end use(s)
Thermoplastic marking material: Only to be used for road marking

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>fibres/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>13463-67-7</td>
<td>Titanium dioxide, total inhalable</td>
<td>-</td>
<td>10</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
</tbody>
</table>

DNEL/DMEL values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL type</td>
<td>Exposure route</td>
</tr>
<tr>
<td>13463-67-7</td>
<td>Titanium dioxide</td>
</tr>
<tr>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
</tr>
</tbody>
</table>

PNEC values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental compartment</td>
<td>Value</td>
</tr>
<tr>
<td>13463-67-7</td>
<td>Titanium dioxide</td>
</tr>
<tr>
<td>Freshwater</td>
<td>0,184 mg/l</td>
</tr>
</tbody>
</table>

Additional advice on limit values
Reduce exposure to fume by keeping operating temperatures as low as possible taking into account occupational exposure limits and safe handling temperatures (see Section 7). Where practicable handle within an enclosed process. Alternatively local exhaust ventilation should be considered.
8.2. Exposure controls

**Appropriate engineering controls**
Use only in well-ventilated areas.

**Protective and hygiene measures**
- Do not eat, drink, smoke or sneeze at the workplace.
- Wash hands before breaks and after work.
- Avoid contact with skin, eyes and clothes.

**Eye/face protection**
no restriction

**Hand protection**
no restriction

**Skin protection**
no restriction

**Respiratory protection**
With correct and proper use, and under normal conditions, breathing protection is not required.

**Environmental exposure controls**
Product related measures to prevent exposure:
- Do not allow to enter into soil/subsoil.

### SECTION 9: Physical and chemical properties

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>solid</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>various</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>odourless</td>
<td></td>
</tr>
<tr>
<td>pH-Value</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Changes in the physical state</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point</td>
<td>90-150 °C</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>&gt;260 °C DIN 53171</td>
<td></td>
</tr>
<tr>
<td>Sublimation point</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Softening point</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Pour point</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 250 °C ISO 3679</td>
<td></td>
</tr>
<tr>
<td>Sustaining combustion</td>
<td>Sustaining combustion</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Gas</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>not explosive</td>
<td></td>
</tr>
<tr>
<td>Lower explosion limits</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Upper explosion limits</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>not determined</td>
<td></td>
</tr>
</tbody>
</table>
Auto-ignition temperature
- Solid: not determined
- Gas: not determined

Decomposition temperature: not determined

Oxidizing properties
- not applicable

Vapour pressure: not determined

Density (at 23 °C): 1.8-2.2 g/cm³ ISO 2811

Water solubility: unlöslich

Solubility in other solvents
- No information available.

Partition coefficient: not determined

Viscosity / dynamic:
- (at 25 °C) not applicable ISO 3219

Flow time: not determined

Vapour density: not determined

Evaporation rate: not determined

Solvent separation test: 0%

9.2. Other information
- Solid content: 100 %
- No further relevant information available.

SECTION 10: Stability and reactivity

10.1. Reactivity
- Reacts with: Oxidizing agents.

10.2. Chemical stability
- No hazardous reaction when handled and stored according to provisions.
- The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions
- No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid
- Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

10.5. Incompatible materials
- Safe handling: see section 7
- Do not store together with: Oxidizing agent

10.6. Hazardous decomposition products
- Thermal decomposition can lead to the escape of irritating gases and vapors.
- Hazardous decomposition products: Carbon dioxide (CO2), Carbon monoxide (CO).

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity
Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>13463-67-7</td>
<td>Titanium dioxide</td>
<td>oral</td>
<td>LD50</td>
<td>&gt; 5000</td>
<td>Rat</td>
<td>OECD 425</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>&gt; 5000</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation (4 h) aerosol</td>
<td>LC50</td>
<td>&gt; 6,8</td>
<td>Rat</td>
<td></td>
</tr>
</tbody>
</table>

Irritation and corrosivity
Based on available data, the classification criteria are not met.

Sensitising effects
Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction
Based on available data, the classification criteria are not met.

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.

Specific effects in experiment on an animal
There are no data available on the mixture itself.

Additional information on tests
There are no data available on the mixture itself.

Practical experience

Observations relevant to classification
There are no data available on the mixture itself.

Other observations
Causes mild eye irritation
If eye irritation persists: Get medical advice/attention.

Further information
Preparation not tested. Toxicological data are not available.

SECTION 12: Ecological information

12.1. Toxicity
There are no data available on the mixture itself.
The statement is derived from the properties of the single components.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Aquatic toxicity</th>
<th>Dose</th>
<th>[h]</th>
<th>[d]</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>13463-67-7</td>
<td>Titanium dioxide</td>
<td></td>
<td>LC50</td>
<td>96 h</td>
<td></td>
<td>Pimephales promelas</td>
<td></td>
<td>EPA-540/9-85-00 6</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
There are no data available on the mixture itself.
12.3. Bioaccumulative potential
There are no data available on the mixture itself.

12.4. Mobility in soil
There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment
The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects
There are no data available on the mixture itself.

Further information
Preparation not tested.
According to the present state of knowledge negative ecological effects are not expected.
Do not allow uncontrolled leakage of product into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Disposal recommendations
Dispose of waste according to applicable legislation.
Consult the appropriate local waste disposal expert about waste disposal.
Hand over to officially registered waste disposal company.

SECTION 14: Transport information

Land transport (ADR/RID)
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards
ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user
Use personal protective equipment as required.
Keep away from heat.
Do not allow to enter into surface water or drains.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
EU regulatory information
2010/75/EU (VOC): 0%
2004/42/EC (VOC): 0%

National regulatory information
Observe restrictions to employment for juveniles according to the ‘juvenile work protection guideline’ (94/33/EC). Observe employment restrictions for women of child-bearing age.

### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Abbreviations and acronyms

- REACH: Registration, Evaluation, Authorization and Restriction of Chemicals
- CLP: Classification, Labelling and Packaging of Substances and Mixtures
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- ADR: Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- RID: Règlement International concernant le transport des marchandises Dangereuses par chemin de fer (Regulations concerning the International Transport of Dangerous Goods by Rail)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organization
- VOC: Volatile Organic Components / COV: Composants Organiques Volatiles

#### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

__(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor’s safety data sheet.)__