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

1.1. Product identifier

**ViaTherm® - alkyd**

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**

Only to be used for road marking

1.3. Details of the supplier of the safety data sheet

<table>
<thead>
<tr>
<th>Company name:</th>
<th>Geveko Markings Denmark A/S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street:</td>
<td>Longelsevej 34</td>
</tr>
<tr>
<td>Place:</td>
<td>DK-5900 Rudkøbing</td>
</tr>
<tr>
<td>Telephone:</td>
<td>+45 6351 7171</td>
</tr>
<tr>
<td>Telefax:</td>
<td>+45 6351 7182</td>
</tr>
<tr>
<td>e-mail:</td>
<td><a href="mailto:sales@gevekomarkings.com">sales@gevekomarkings.com</a></td>
</tr>
<tr>
<td>Contact person:</td>
<td>Product Management</td>
</tr>
<tr>
<td>e-mail:</td>
<td><a href="mailto:mads@gevekomarkings.com">mads@gevekomarkings.com</a></td>
</tr>
<tr>
<td>Internet:</td>
<td><a href="http://www.geveko-markings.com">www.geveko-markings.com</a></td>
</tr>
<tr>
<td>Responsible Department:</td>
<td>Product Management</td>
</tr>
</tbody>
</table>

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**

- Hazard categories:
  - Serious eye damage/eye irritation: Eye Irrit. 2

- Hazard Statements:
  - Causes serious eye irritation.

2.2. Label elements

**Regulation (EC) No. 1272/2008**

- **Hazard components for labelling**
  - Resin acids and Rosin acids, fumarated, esters with pentaerythritol

- **Signal word:** Warning

- **Pictograms:**

- **Hazard statements**
  - H319 Causes serious eye irritation.

- **Precautionary statements**
  - P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
  - P280 Wear protective gloves/protective clothing/eye protection/face protection.
  - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
  - P337+P313 If eye irritation persists: Get medical advice/attention.

Labelling of packages where the contents do not exceed 125 ml
Warning

Signal word: Warning
Pictograms:

Hazard statements
H317

Precautionary statements
P261-P280-P321-P333+P313

2.3. Other hazards
The melted product can cause severe burns.
The heated or molten product may develop irritating gases or vapors.
After contact with molten product, cool skin area rapidly with cold water.
Burns caused by molten material must be treated clinically.

SECTION 3: Composition/information on ingredients

3.2. Mixtures
Chemical characterization
Mixture of natural and synthetic alkydester resins with quartz sands and titanium dioxide.

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC No</td>
<td>Index No</td>
<td>REACH No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>94581-15-4</td>
<td>Resin acids and Rosin acids, fumarated, esters with pentaerythritol</td>
<td>10 - &lt; 15 %</td>
</tr>
<tr>
<td>305-514-1</td>
<td>01-2119485895-17</td>
<td></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
Processing vapours can irritate the respiratory tracts, skin and eyes.

After inhalation
Provide fresh air. Avoid breathing dust/fume/gas/mist/vapours/spray.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
The heated or molten product may develop irritating gases or vapors.
Get medical advice/attention if you feel unwell.

After contact with skin
Wash with plenty of water. Take off contaminated clothing and wash it before reuse. Frequently or prolonged contact with skin may cause dermal irritation.
Rinse skin with water [or shower].
After contact with molten product, cool skin area rapidly with cold water.
Burns caused by molten material must be treated clinically.

After contact with eyes
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart.
In case of eye irritation consult an ophthalmologist.
After ingestion
Rinse mouth immediately and drink plenty of water.
Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed
The following symptoms may occur:
May cause sensitization in susceptible people. People who suffer from skin problems, asthma, allergies,
chronic or recurring respiratory illnesses must not be deployed in processes, which use this substance.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically. In all cases of doubt, or when symptoms persist, seek medical advice.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Co-ordinate fire-fighting measures to the fire surroundings. In case of fire, use sand, extinguishing powder or
alcohol resistant foam.

Unsuitable extinguishing media
Strong water jet

5.2. Special hazards arising from the substance or mixture
Non-flammable. 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
In case of fire: Wear self-contained breathing apparatus. Co-ordinate fire-fighting measures to the fire
surroundings.
In case of fire and/or explosion do not breathe fumes.
Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information
Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.
Do not allow entering drains or surface water. Move undamaged containers from immediate hazard area if it
can be done safely.
Due to gaseous decomposition products, overpressure can occur in tightly sealed containers.
Containers exposed to fire should be cooled with water.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
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. Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes and
clothes. Use personal protection equipment. Ventilate affected area. Do not breathe vapour.
For the protection against direct skin contact, body protective clothing is essential (in addition to the usual
working clothes).
After contact with skin, wash immediately with plenty of water. Immerse in cool water [or wrap in wet
bandages].
Wash hands before breaks and after work.

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

6.3. Methods and material for containment and cleaning up
Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal. Take up
mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections
Safe handling: see section 7
SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
- Use only outdoors or in a well-ventilated area.
- Avoid contact with skin and eyes.
- Avoid exposure - obtain special instructions before use.
- Observe technical data sheet.

Advice on protection against fire and explosion
- Keep away from sources of ignition - No smoking.
- Fight fire with normal precautions from a reasonable distance.

Further information on handling
- Wear suitable protective clothing, gloves and eye/face protection.
- Wash hands before breaks and after work.
- Take off contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
- Keep container tightly closed. Store in a place accessible by authorized persons only.
- Restrict access to stockrooms.
- Keep/Store only in original container.
- The floor should be leak tight, jointless and not absorbent.
- Keep away from sources of ignition - No smoking.

Hints on joint storage
- Storage class (D): 11 (www.vci.de, TRGS 510)
- Do not store together with:
  - Storage class (D): 1, (2A), (3), (4.1A), (4.2), (4.3), 5.1A, (5.1B), (5.1C), (5.2), (6.1A), (6.1B), 6.2, 7.
  - Figures in ( ): The common storage is only allowed limited..

Further remarks:
- Storage class 1 : Explosive substances.
- Storage class 2A : Gases.
- Storage class 2B : Aerosols.
- Storage class 3 : Flammable liquids.
- Storage class 4.1A : Other explosive substances.
- Storage class 4.1B : Flammable solids or desensitized substances.
- Storage class 4.2 : Self-igniting substances.
- Storage class 4.3 : Substances which, when in contact with water, form flammable gases.
- Storage class 5.1A : Strongly oxidizing substances.
- Storage class 5.1B : Oxidizing substances.
- Storage class 5.1C : Ammonium nitrate and ammonium nitrate materials.
- Storage class 5.2 : Organic peroxides and self-reactive substances.
- Storage class 6.1A : Combustible acute toxic substances.
- Storage class 6.1B : Non-combustible acute toxic substances.
- Storage class 6.1C : Combustible toxic substances or substances with chronic effects.
- Storage class 6.1D : Non-combustible toxic substances or substances with chronic effects.
- Storage class 6.2 : Infectious substances.
- Storage class 7 : Radioactive materials.
- Storage class 8A : Combustible corrosive substances.
Storage class 8B: Non-combustible corrosive substances.
Storage class 10: Combustible liquids, if not storage class 3.
Storage class 11: Combustible solids.
Storage class 12: Non-combustible liquids.
Storage class 13: Non-combustible solids.
Storage class 10-13: Other combustible and non-combustible substances.

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, respirable</td>
<td>-</td>
<td>4</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>
<th>DNEL type</th>
<th>Exposure route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>13463-67-7</td>
<td>Titanium dioxide</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>10 mg/m³</td>
</tr>
</tbody>
</table>

PNEC values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Environmental compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>13463-67-7</td>
<td>Titanium dioxide</td>
<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
Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Do not eat, drink, smoke or sneeze at the workplace. Before starting work, apply solvent-resistant skincare preparations. Wash hands before breaks and after work. After cleaning apply high-fat content skin care cream. Avoid contact with skin, eyes and clothes. Used working clothes should not be worn outside the work area.
Wash contaminated clothing prior to re-use.

**Eye/face protection**

Suitable eye protection: goggles. Wear eye/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Recommended protective gloves brand: Wear protective gloves made of leather.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Prolonged/repetitive skin contact may cause skin de-fattening or dermatitis. After cleaning apply high-fat content skin care cream. e.g. STOKO® soft+care.

**Hand protection**

Suitable protective clothing. Wear suitable protective clothing, gloves and eye/face protection.

**Skin protection**

Wear protective gloves made of leather.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Prolonged/repetitive skin contact may cause skin de-fattening or dermatitis. After cleaning apply high-fat content skin care cream. e.g. STOKO® soft+care.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Suitable respiratory protection apparatus:

- Half-face mask or quarter facepiece: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 10 times the exposure limit. P3 filter: up to a max. of 30 times the exposure limit. Filter types: A2P2.

**Environmental exposure controls**

Product related measures to prevent exposure:

- After use lock the container immediately.
- Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).
- 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>Physical state:</th>
<th>solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>various</td>
</tr>
<tr>
<td>Odour:</td>
<td>odourless</td>
</tr>
</tbody>
</table>

**pH-Value:** not applicable

**Changes in the physical state**

- Melting point: not applicable
- Initial boiling point and boiling range: not applicable
- Sublimation point: not applicable
- Softening point: 90 - 150 °C
- Pour point: not applicable
- Flash point: > 428 °C
- Sustaining combustion: Not sustaining combustion

**Flammability**

- Solid: not applicable
- Gas: not applicable
### Lower explosion limits:
- not applicable

### Upper explosion limits:
- not applicable

### Ignition temperature:
- not applicable

### Auto-ignition temperature

- **Solid:** not applicable
- **Gas:** not applicable

### Decomposition temperature:
- No information available.

### Oxidizing properties
- Not oxidising.
- Vapour pressure: No information available.
- Vapour pressure: No information available.
- Density (at 23 °C): 1.9 g/cm³
- Bulk density: No information available.
- Water solubility: No information available.

### Solubility in other solvents
- No information available.

### Partition coefficient:
- not applicable

### Viscosity / dynamic:
- No information available.

### Viscosity / kinematic:
- No information available.

### Flow time:
- No information available.

### Vapour density:
- not applicable

### Evaporation rate:
- not applicable

### Solvent separation test:
- not applicable

### 9.2. Other information

- Solid content: 100 %
- No 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:

#### 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

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

Additional information on tests
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. 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.

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

12.3. Bioaccumulative potential
No indication of bio-accumulation potential.
On the basis of existing data about disposal/decomposition and bio-accumulation potential, long term environmental damage is unlikely.

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
Avoid release to the environment. 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

Advice on disposal
Do not allow to enter into surface water or drains. 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.

Contaminated packaging
Wash with plenty of water. Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)
Other applicable information (land transport)
No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)
Other applicable information (inland waterways transport)
No dangerous good in sense of this transport regulation.

Marine transport (IMDG)
Other applicable information (marine transport)
No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)
Other applicable information (air transport)
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
Information according to 2012/18/EU (SEVESO III):
Not subject to 2012/18/EU (SEVESO III)

National regulatory information
Employment restrictions:
Observe restrictions to employment for juvenils according to the ‘juvenile work protection guideline’ (94/33/EC).
Water contaminating class (D):
1 - slightly water contaminating

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

SECTION 16: Other information

Abbreviations and acronyms
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Irrit. 2; H319</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>
Relevant H and EUH statements (number and full text)

- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H413 May cause long lasting harmful effects to aquatic life.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singulary responsible for adhering to existing laws and regulations. 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.)