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

1.1. Product identifier
TECHNOMELT KS 224/2 known as DORUS KS 224/2 natur

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
hotmelt, based on EVA

1.3. Details of the supplier of the safety data sheet
Henkel AG & Co. KGaA
Henkelstr. 67
40589 Düsseldorf
Germany
Phone: +49 211 797 0
Fax-no.: +49 211 798 2009
ua-productsafety.de@henkel.com

1.4. Emergency telephone number
The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification (CLP):
The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

2.2. Label elements
Label elements (CLP):
The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

2.3. Other hazards
None if used properly.
Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:
Adhesive

Base substances of preparation:
Resin
Ethylene-vinyl acetate copolymer
Mineral fillers

Declaration of the ingredients according to CLP (EC) No 1272/2008:
Contains no dangerous substances exceeding the limits of the EU-Regulation

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air, consult doctor if complaint persists.

Skin contact:
Molten product. After skin contact cool down immediately with cold water. Do not remove adherent product. Seek medical advice.

Eye contact:
After contact with the hot melt: cool with water, seek medical attention.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed
No data available.

4.3. Indication of any immediate medical attention and special treatment needed
See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:
High pressure waterjet

5.2. Special hazards arising from the substance or mixture
In case of fire toxic gases can be released.

5.3. Advice for firefighters
Wear self-contained breathing apparatus.
Wear protective equipment.

SECTION 6: Accidental release measures

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

6.2. Environmental precautions
Do not empty into drains / surface water / ground water.
6.3. Methods and material for containment and cleaning up
Allow to solidify.
 Remove mechanically.
 Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections
See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Hygiene measures:
 Wash hands before work breaks and after finishing work.
 Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities
Store in sealed original container protected against moisture and light.
 Ensure good ventilation/extraction.
 Store in a cool, dry place.

7.3. Specific end use(s)
hotmelt, based on EVA

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits
Valid for Germany

<table>
<thead>
<tr>
<th>Ingredient [Regulated substance]</th>
<th>ppm</th>
<th>mg/m³</th>
<th>Value type</th>
<th>Short term exposure limit category / Remarks</th>
<th>Regulatory list</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinyl acetate 108-05-4 [VINYL ACETATE]</td>
<td>5</td>
<td>17,6</td>
<td>Time Weighted Average (TWA):</td>
<td>Indicative</td>
<td>ECTLV</td>
</tr>
<tr>
<td>Vinyl acetate 108-05-4 [VINYL ACETATE]</td>
<td>10</td>
<td>35,2</td>
<td>Short Term Exposure Limit (STEL):</td>
<td>Indicative</td>
<td>ECTLV</td>
</tr>
<tr>
<td>Vinyl acetate 108-05-4</td>
<td></td>
<td></td>
<td>Short Term Exposure Classification:</td>
<td>Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.</td>
<td>TRGS 900</td>
</tr>
<tr>
<td>Vinyl acetate 108-05-4</td>
<td>5</td>
<td>18</td>
<td>Exposure limit(s):</td>
<td>2</td>
<td>TRGS 900</td>
</tr>
<tr>
<td>DUSTS, NON-SPECIFIC, RESPIRABLE FRACTION</td>
<td></td>
<td></td>
<td>Short Term Exposure Classification:</td>
<td>Category II: substances with a resorptive effect.</td>
<td>TRGS 900</td>
</tr>
<tr>
<td>DUSTS, NON-SPECIFIC, RESPIRABLE FRACTION</td>
<td>10</td>
<td>Exposure limit(s):</td>
<td>2</td>
<td>TRGS 900</td>
<td></td>
</tr>
<tr>
<td>DUSTS, NON-SPECIFIC, RESPIRABLE FRACTION</td>
<td>1.25</td>
<td>Exposure limit(s):</td>
<td>TRGS 900</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Biological Exposure Indices:
None

8.2. Exposure controls:

Engineering controls:
Ensure good ventilation/extraction.
Respiratory protection:
In case of dust formation, we recommend wearing of appropriate respiratory protection equipment with particle filter P (EN 14387).
This recommendation should be matched to local conditions.

Hand protection:
Wear refractive gloves while working with the hot melt.

Eye protection:
Protective goggles
Protective eye equipment should conform to EN166.

Skin protection:
Wear protective equipment.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:
Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway).
The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

### SECTION 9: Physical and chemical properties

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>granulate, granulated, light beige</td>
</tr>
<tr>
<td>Odor</td>
<td>specific</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>pH</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Solidification temperature</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Initial boiling point</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 200 °C (&gt; 392 °F)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>The product is not explosive.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Relative vapour density:</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Density</td>
<td>1.2 g/cm³</td>
</tr>
<tr>
<td>(20 °C (68 °F))</td>
<td></td>
</tr>
<tr>
<td>Bulk density</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Solubility (qualitative)</td>
<td>Insoluble</td>
</tr>
<tr>
<td>(20 °C (68 °F); Solvent: Water)</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>14,500 - 21,000 mPa.s</td>
</tr>
<tr>
<td>(Brookfield; 180 °C (356 °F); speed of rotation: 30 min-1; Spindle No: 29)</td>
<td></td>
</tr>
<tr>
<td>Viscosity (kinematic)</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available / Not applicable</td>
</tr>
</tbody>
</table>

#### 9.2. Other information

Softening point/range                          | 80 - 90 °C (176 - 194 °F) |
SECTION 10: Stability and reactivity

10.1. Reactivity
None if used for intended purpose.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
None if used for intended purpose.

10.5. Incompatible materials
None if used properly.

10.6. Hazardous decomposition products
At higher temperatures acetic acid may be released.

SECTION 11: Toxicological information

General toxicological information:
To the best of our knowledge no harmful effects are to be expected if the product is handled and used properly.

11.1. Information on toxicological effects

Acute oral toxicity:
No data available.

Acute dermal toxicity:
No data available.

Acute inhalative toxicity:
No data available.

Skin corrosion/irritation:
No data available.

Serious eye damage/irritation:
No data available.

Respiratory or skin sensitization:
No data available.

Germ cell mutagenicity:
No data available.
Carcinogenicity
No data available.

Reproductive toxicity:
No data available.

STOT-single exposure:
No data available.

STOT-repeated exposure:
No data available.

Aspiration hazard:
No data available.

SECTION 12: Ecological information

General ecological information:
Do not empty into drains / surface water / ground water.

12.1. Toxicity

Toxicity (Fish):
No data available.

Toxicity (Daphnia):
No data available.

Chronic toxicity to aquatic invertebrates
No data available.

Toxicity (Algae):
No data available.

Toxicity to microorganisms
No data available.

12.2. Persistence and degradability
No data available.

12.3. Bioaccumulative potential
No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or vPvB.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:
In consultation with the responsible local authority, must be subjected to special treatment.

Waste code
The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.
08 04 10 Waste adhesives and sealants other than those mentioned in 08 04 09.

SECTION 14: Transport information

14.1. UN number
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.2. UN proper shipping name
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.3. Transport hazard class(es)
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.4. Packing group
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.5. Environmental hazards
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.6. Special precautions for user
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

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
VOC content 0 %
(VOCV 814.018 VOC regulation CH)
15.2. Chemical safety assessment
A chemical safety assessment has not been carried out.

National regulations/information (Germany):

WGK: I, slightly water-endangering product. (German VwVwS of July 27, 2005)
Classification in conformity with the calculation method

WGK: WGK = 1, slightly water endangering mixture. Classification according to the mixture rules in German AwSV regulation annex 1, number 5.2 from 18. April 2017.

Storage class according to TRGS 510: 11

SECTION 16: Other information

Further information:
This Safety Data Sheet has been produced for sales from Henkel to parties purchasing from Henkel, is based on Regulation (EC) No 1907/2006 and provides information in accordance with applicable regulations of the European Union only. In that respect, no statement, warranty or representation of any kind is given as to compliance with any statutory laws or regulations of any other jurisdiction or territory other than the European Union. When exporting to territories other than the European Union, please consult with the respective Safety Data Sheet of the concerned territory to ensure compliance or liaise with Henkel’s Product Safety and Regulatory Affairs Department (ua-productsafety.de@henkel.com) prior to export to other territories than the European Union.

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.