



## Safety Data Sheet according to (EC) No 1907/2006 as amended

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SDS No. : 100520  
V002.0

TECHNOMELT KS 224/2 known as DORUS KS 224/2 natur

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### 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

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For Safety Data Sheet updates please visit our website <https://mysds.henkel.com/index.html#/appSelection> or [www.henkel-adhesives.com](http://www.henkel-adhesives.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).

##### Supplemental information

Safety data sheet available on request.

#### 2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

Following substances are present in a concentration  $\geq 0,1\%$  and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in concentration  $\geq$  the concentration limit that are assessed to be a PBT, vPvB or ED.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
vinyl acetate 108-05-4 203-545-4 01-2119471301-50	0,1- < 1 %	Flam. Liq. 2, H225 Acute Tox. 4, Inhalation, H332 Carc. 2, H351 STOT SE 3, H335	inhalation:ATE = 11,27 mg/l;vapour	EU OEL

For full text of the H - statements and other abbreviations see section 16 "Other information".  
Substances without classification may have community workplace exposure limits available.

### 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.

Toxic and irritating vapors.

**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.

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

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Calcium carbonate 471-34-1			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Calcium carbonate 471-34-1		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Calcium carbonate 471-34-1		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Vinyl acetate 108-05-4 [VINYL ACETATE]	5	17,6	Time Weighted Average (TWA):	Indicative	ECTLV
Vinyl acetate 108-05-4 [VINYL ACETATE]	10	35,2	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Vinyl acetate 108-05-4			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900
Vinyl acetate 108-05-4	10	36	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Vinyl acetate 108-05-4			Skin designation:	Can be absorbed through the skin.	TRGS 900

#### Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
vinyl acetate 108-05-4	aqua (freshwater)		0,016 mg/l				
vinyl acetate 108-05-4	aqua (marine water)		0,002 mg/l				
vinyl acetate 108-05-4	aqua (intermittent releases)		0,126 mg/l				
vinyl acetate 108-05-4	sediment (freshwater)				0,067 mg/kg		
vinyl acetate 108-05-4	sediment (marine water)				0,007 mg/kg		
vinyl acetate 108-05-4	Soil				0,004 mg/kg		
vinyl acetate 108-05-4	sewage treatment plant (STP)		6 mg/l				
vinyl acetate 108-05-4	Air						no hazard identified
vinyl acetate 108-05-4	Predator						no potential for bioaccumulation

**Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
vinyl acetate 108-05-4	Workers	inhalation	Acute/short term exposure - systemic effects		35,2 mg/m <sup>3</sup>	no hazard identified
vinyl acetate 108-05-4	Workers	inhalation	Acute/short term exposure - local effects		35,2 mg/m <sup>3</sup>	no hazard identified
vinyl acetate 108-05-4	Workers	dermal	Long term exposure - systemic effects		0,42 mg/kg	no hazard identified
vinyl acetate 108-05-4	Workers	inhalation	Long term exposure - systemic effects		17,6 mg/m <sup>3</sup>	no hazard identified
vinyl acetate 108-05-4	Workers	inhalation	Long term exposure - local effects		17,6 mg/m <sup>3</sup>	no hazard identified

**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 heat resistance gloves while working with the hot melt (EN 407).

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), or equivalent.

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**

Physical state	solid
Delivery form	granulate
Colour	light beige
Odor	acetic acid medium
Melting point	80 - 90 °C (176 - 194 °F) (Softening Point)
Initial boiling point	Not applicable, Decomposes before boiling point is reached
Flammability	Not applicable
	Non flammable product (flash point is greater than 93°C)
Explosive limits	The product is not explosive.
Flash point	> 200 °C (> 392 °F)

pH	Not applicable, Product is non-soluble (in water).
Viscosity (kinematic)	Not applicable, Product is a solid.
Viscosity, dynamic (Brookfield; 180 °C (356 °F); speed of rotation: 30 min-1; Spindle No: 29)	14.500 - 21.000 mPa.s Dorus-method 501; viscosity Brookfield
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Insoluble
Vapour pressure (20 °C (68 °F))	< 0,1 hPa
Density (20 °C (68 °F))	1,2 g/cm3 no method
Relative vapour density:	Not applicable, Product is a solid.
Particle characteristics	Not applicable Product is not granulate, powder, flake, pellet.

**9.2. Other information**

Other information not applicable for this product

## 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**

No decomposition if used according to specifications.

## SECTION 11: Toxicological information

**General toxicological information:**

An allergic reaction cannot be excluded after repeated skin contact.

**Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
vinyl acetate 108-05-4	LD50	3.500 mg/kg	rat	not specified

**Acute dermal toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
vinyl acetate 108-05-4	LD50	7.440 mg/kg	rabbit	not specified

**Acute inhalative toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
vinyl acetate 108-05-4	Acute toxicity estimate (ATE)	11,27 mg/l	vapour			Expert judgement
vinyl acetate 108-05-4	LC50	4490 ppm	vapour	4 h	rat	not specified

**Skin corrosion/irritation:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
vinyl acetate 108-05-4	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

**Serious eye damage/irritation:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
vinyl acetate 108-05-4	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

**Respiratory or skin sensitization:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
vinyl acetate 108-05-4	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

**Germ cell mutagenicity:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
vinyl acetate 108-05-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
vinyl acetate 108-05-4	ambiguous	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

**Carcinogenicity**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
vinyl acetate 108-05-4	carcinogenic	inhalation: vapour	104 w 6 h/d, 5 d/w	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

**Reproductive toxicity:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
vinyl acetate 108-05-4	NOAEL P 1000 ppm		oral: drinking water	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)

**STOT-single exposure:**

No data available.

**STOT-repeated exposure::**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
vinyl acetate 108-05-4	NOAEL 5000 ppm	oral: drinking water	3 m daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

**Aspiration hazard:**

No data available.

**11.2 Information on other hazards**

not applicable



## SECTION 12: Ecological information

### General ecological information:

Do not empty into drains, soil or bodies of water.

### 12.1. Toxicity

#### Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
vinyl acetate 108-05-4	LC50	26 mg/l	48 h	Leuciscus idus melanotus	OECD Guideline 203 (Fish, Acute Toxicity Test)
vinyl acetate 108-05-4	NOEC	0,551 mg/l	34 d	Pimephales promelas	OECD Guideline 210 (fish early lite stage toxicity test)

#### Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
vinyl acetate 108-05-4	EC50	12,6 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

#### Chronic toxicity to aquatic invertebrates

No data available.

#### Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
vinyl acetate 108-05-4	NOEC	5,96 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
vinyl acetate 108-05-4	EC50	12,7 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

#### Toxicity to microorganisms

No data available.

### 12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
vinyl acetate 108-05-4	readily biodegradable	aerobic	82 - 98 %	14 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))

### 12.3. Bioaccumulative potential

No data available.

### 12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
vinyl acetate 108-05-4	0,73	25 °C	other guideline:

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

Hazardous substances CAS-No.	PBT / vPvB
vinyl acetate 108-05-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

**12.6. Endocrine disrupting properties**

not applicable

**12.7. 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. Maritime transport in bulk according to IMO instruments**

not applicable

## SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable
VOC content (2010/75/EU)	0 %

### 15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

#### National regulations/information (Germany):

WGK:	WGK 1: slightly hazardous to water (Ordinance on facilities for handling substances that are hazardous to water (AwSV) ) Classification according to AwSV, Annex 1 (5.2)
Storage class according to TRGS 510:	11

## SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H225 Highly flammable liquid and vapor.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H351 Suspected of causing cancer.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

#### Further information:

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