

**KERAFOL Keramische Folien GmbH & Co. KG**  
92676 Eschenbach

Date printed 19.06.2023, Revision 20.10.2022

Version 4.0. Supersedes version: 3.0

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

### 1.1 Product identifier

**KERATHERM® - Wärmeleitpaste KP98**

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

#### 1.2.1 Relevant uses

Heatled paste

#### 1.2.2 Uses advised against

None known.

### 1.3 Details of the supplier of the safety data sheet

#### Company

KERAFOL Keramische Folien GmbH & Co. KG  
Koppe-Platz 1  
92676 Eschenbach / GERMANY  
Phone +49 (0) 9645 88-300  
Fax +49 (0) 9645 88-390  
Homepage [www.kerafol.com](http://www.kerafol.com)  
E-mail [info@kerafol.com](mailto:info@kerafol.com)

#### Address enquiries to

#### Technical information

[info@kerafol.com](mailto:info@kerafol.com)

#### Safety Data Sheet

[sdb@chemiebuero.de](mailto:sdb@chemiebuero.de) (No dispatch of safety data sheets)

Safety data sheets are available from the supplier.

### 1.4 Emergency telephone number

#### Advisory body

+49 (0)89-19240 (24h) (English)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

No classification.

### 2.2 Label elements

The product does not require a hazard warning label in accordance with regulation CLP.

#### Hazard pictograms

none

#### Signal word

none

#### Hazard statements

none

#### Precautionary statements

none

### 2.3 Other hazards

#### Human health dangers

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### Environmental hazards

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.  
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### Other hazards

none

## SECTION 3: Composition / Information on ingredients

### 3.1 Substances

not applicable

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### 3.2 Mixtures

The product is a mixture.

**Comment on component parts** The contained dangerous materials are not freely available with foreseeable use.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

<b>General information</b>	Take off contaminated clothing and wash before reuse.
<b>Inhalation</b>	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
<b>Skin contact</b>	When in contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists.
<b>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	Seek medical advice immediately. Rinse out mouth and give plenty of water to drink.

### 4.2 Most important symptoms and effects, both acute and delayed

None known.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Foam. Dry powder. Water spray jet. Carbon dioxide.
<b>Extinguishing media that must not be used</b>	Full water jet.

### 5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.

### 5.3 Advice for firefighters

Use self-contained breathing apparatus.  
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Some risk of slipping due to spillage of product.  
Wear suitable protective equipment. For personal protection see SECTION 8.

### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

### 6.3 Methods and material for containment and cleaning up

Take up mechanically.  
Dispose of absorbed material in accordance with the regulations.

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#### 6.4 Reference to other sections

See SECTION 8+13

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Avoid contact with eyes and skin. Use personal protective equipment.

Wash hands before breaks and after work.  
Use barrier skin cream.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Store in a dry place.

#### 7.3 Specific end use(s)

See product use, SECTION 1.2

### SECTION 8: Exposure controls / personal protection

#### 8.1 Control parameters

##### Ingredients with occupational exposure limits to be monitored (GB)

not relevant

##### Ingredients with occupational exposure limits to be monitored (EU)

not relevant

#### 8.2 Exposure controls

##### Additional advice on system design

Ensure adequate ventilation on workstation.  
Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.

##### Eye protection

Safety glasses. (EN 166:2001)

##### Hand protection

0.4mm: Butyl rubber, >120 min (EN 374-1/-2/-3).  
The details concerned are recommendations. Please contact the glove supplier for further information.

##### Skin protection

Not required under normal conditions.

##### Other

Avoid contact with eyes and skin.

##### Respiratory protection

Not required under normal conditions.

##### Thermal hazards

not applicable

##### Delimitation and monitoring of the environmental exposition

Comply with applicable environmental regulations limiting discharge to air, water and soil.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	Liquid
Form	pasty
Color	grey
Odor	characteristic
Odour threshold	not applicable
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not applicable
Flash point [°C]	ca. 270
Flammability	> 400
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/cm <sup>3</sup> ]	2.2
Relative density	No information available.
Bulk density [kg/m <sup>3</sup> ]	not applicable
Solubility in water	virtually insoluble
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	not applicable
Kinematic viscosity	110-150 Pas
Relative vapour density	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Auto-ignition temperature [°C]	No information available.
Decomposition temperature [°C]	> 350
Particle characteristics	not relevant

### 9.2 Other information

Operation temperature: -60 - +150 °C

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

### 10.2 Chemical stability

The product is stable under standard conditions.

### 10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.

### 10.4 Conditions to avoid

Strong heating.

### 10.5 Incompatible materials

No information available.

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## 10.6 Hazardous decomposition products

In the case of heating (150-180°C) following modest (decomposition) products may occur:

Formaldehyde.

Benzene.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute oral toxicity

Product

Based on the available information, the classification criteria are not fulfilled.

#### Acute dermal toxicity

Product

Based on the available information, the classification criteria are not fulfilled.

#### Acute inhalational toxicity

Product

Based on the available information, the classification criteria are not fulfilled.

**Serious eye damage/irritation**

Based on the available information, the classification criteria are not fulfilled.

**Skin corrosion/irritation**

Based on the available information, the classification criteria are not fulfilled.

**Respiratory or skin sensitisation**

Based on the available information, the classification criteria are not fulfilled.

**Specific target organ toxicity —  
single exposure**

Based on the available information, the classification criteria are not fulfilled.

**Specific target organ toxicity —  
repeated exposure**

Based on the available information, the classification criteria are not fulfilled.

**Mutagenicity**

Based on the available information, the classification criteria are not fulfilled.

**Reproduction toxicity**

Based on the available information, the classification criteria are not fulfilled.

**Carcinogenicity**

Based on the available information, the classification criteria are not fulfilled.

**Aspiration hazard**

Based on the available information, the classification criteria are not fulfilled.

**General remarks**

Toxicological data of complete product are not available.

### 11.2 Information on other hazards

**11.2.1 Endocrine disrupting  
properties**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**11.2.2 Other information**

none

## SECTION 12: Ecological information

### 12.1 Toxicity

### 12.2 Persistence and degradability

**Behaviour in environment  
compartments**

No information available.

**Behaviour in sewage plant**

No information available.

**Biological degradability**

The organic component of the product is non biodegradable.

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### 12.3 Bioaccumulative potential

No information available.

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

### 12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

Ecological data of complete product are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

#### Product

Disposal in an incineration plant in accordance with the regulations of the local authorities.  
In according to RoHS!

#### Waste no. (recommended)

070217

#### Contaminated packaging

Uncontaminated packaging may be taken for recycling.

#### Waste no. (recommended)

150102

## SECTION 14: Transport information

### 14.1 UN number or ID number

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

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#### 14.2 UN proper shipping name

Transport by land according to ADR/RID	NO DANGEROUS GOODS
Inland navigation (ADN)	NO DANGEROUS GOODS
Marine transport in accordance with IMDG	NOT CLASSIFIED AS "DANGEROUS GOODS"
Air transport in accordance with IATA	NOT CLASSIFIED AS "DANGEROUS GOODS"

#### 14.3 Transport hazard class(es)

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

#### 14.4 Packing group

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

#### 14.5 Environmental hazards

Transport by land according to ADR/RID	no
Inland navigation (ADN)	no
Marine transport in accordance with IMDG	no
Air transport in accordance with IATA	no

#### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

#### 14.7 Maritime transport in bulk according to IMO instruments

not applicable

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## SECTION 15: Regulatory information

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

<b>EEC-REGULATIONS</b>	2008/98/EC 2000/532/EC; 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014
<b>Comment on component parts</b>	Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
- <b>Annex XIV (REACH)</b>	According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances $\geq 0.1\%$ that are subject to authorisation.
- <b>Annex XVII (REACH)</b>	According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances $\geq 0.1\%$ that are restricted.
<b>TRANSPORT-REGULATIONS</b>	ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2023)
<b>NATIONAL REGULATIONS (GB):</b>	EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.
- <b>Observe employment restrictions for people</b>	none
- <b>VOC (2010/75/CE)</b>	0%

### 15.2 Chemical safety assessment

not applicable

## SECTION 16: Other information

### 16.1 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
ATE = acute toxicity estimate  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging  
DMEL = Derived Minimum Effect Level  
DNEL = Derived No Effect Level  
EC50 = Median effective concentration  
ECB = European Chemicals Bureau  
EEC = European Economic Community  
EINECS = European Inventory of Existing Commercial Chemical Substances  
EL50 = Median effective loading  
ELINCS = European List of Notified Chemical Substances  
EmS = Emergency Schedules  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50 = Inhibition concentration, 50%  
IMDG = International Maritime Code for Dangerous Goods  
IUCLID = International Uniform Chemical Information Database  
IVIS = In vitro irritation score  
LC50 = Lethal concentration, 50%  
LD50 = Median lethal dose  
LC0 = lethal concentration, 0%  
LOAEL = lowest-observed-adverse-effect level  
LL50 = Median lethal loading  
LQ = Limited Quantities  
MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
NOAEL = No Observed Adverse Effect Level  
NOEC = No Observed Effect Concentration  
PBT = Persistent, Bioaccumulative and Toxic substance  
PNEC = Predicted No-Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
STP = Sewage Treatment Plant  
TLV®/TWA = Threshold limit value – time-weighted average  
TLV®STEL = Threshold limit value – short-time exposure limit  
VOC = Volatile Organic Compounds  
vPvB = very Persistent and very Bioaccumulative



## 16.2 Other information

### Classification procedure

#### Modified position

SECTION 2 been added: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 2 been added: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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SECTION 12 been added: Based on all available information not to be classified as PBT or vPvB respectively.

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