

KERAFOL Keramische Folien GmbH

92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 1 / 9

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Keratherm®-Bond 100RT, Comp. A****1.2 Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Relevant uses**Adhesive  
2-Component product**1.2.2 Uses advised against**

None known.

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

**Company** KERAFOL Keramische Folien GmbH  
 Koppe-Platz 1  
 92676 Eschenbach / GERMANY  
 Phone +49 (0) 9645 88-300  
 Fax +49 (0) 9645 88-390  
 Homepage www.kerapfol.com  
 E-mail info@kerapfol.com

**Address enquiries to****Technical information** info@kerapfol.com**Safety Data Sheet** sdb@chemiebuero.de**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**

No classification.

**2.2 Label elements**

The product does not require a hazard warning label in accordance with GHS/CLP-directives.

**Hazard pictograms** none**Signal word** none**Hazard statements** none**Precautionary statements** none**2.3 Other hazards****Other hazards** none**SECTION 3: Composition / Information on ingredients****Product-type:**

The product is a mixture.

Range [%]	Substance
50 - 80	Aluminium oxide CAS: 1344-28-1, EINECS/ELINCS: 215-691-6, Reg-No.: 01-2119529248-35-XXXX

**Comment on component parts**No hazardous components to be mentioned.  
Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.

**KERAFOL Keramische Folien GmbH**  
92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 2 / 9

#### 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.
<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>	Do not induce vomiting. Rinse out mouth and give plenty of water to drink. Seek medical advice.

##### 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.  
Forward this sheet to the doctor.

#### SECTION 5: Fire-fighting measures

##### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Alcohol-resistant foam. Water mist. Carbon dioxide.
<b>Extinguishing media that must not be used</b>	Full water jet. Dry powder.

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

risk of formation of toxic pyrolysis products, carbon monoxide (CO), not combusted hydrocarbons

##### 5.3 Advice for firefighters

Use self-contained breathing apparatus.  
Cool containers at risk with water spray jet.  
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

#### SECTION 6: Accidental release measures

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

Ensure adequate ventilation.  
Keep away from all sources of ignition.  
Wear suitable protective equipment. For personal protection see SECTION 8.  
Some risk of slipping due to spillage of product.

##### 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.  
Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth).  
Dispose of absorbed material in accordance within the regulations.

##### 6.4 Reference to other sections

See SECTION 8+13

KERAFOL Keramische Folien GmbH

92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 3 / 9

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Use only in well-ventilated areas.  
 Avoid contact with eyes and skin. Use personal protective equipment.  
 No special measures necessary.  
 Do not eat, drink or smoke when using this product.  
 Wash hands before breaks and after work.  
 Use barrier skin cream.  
 Take off contaminated clothing and wash before reuse.

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

Keep only in original container.  
 Do not store together with oxidizing agents.  
 Keep container in a well-ventilated place.  
 Keep container tightly closed.  
 Protect from heat/overheating.

**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)**

Substance
Aluminium oxide
CAS: 1344-28-1, EINECS/ELINCS: 215-691-6, Reg-No.: 01-2119529248-35-XXXX
Long-term exposure: 10 mg/m <sup>3</sup> , inhalable dust (respirable dust: 4 mg/m <sup>3</sup> )

**DNEL**

Substance
Aluminium oxide, CAS: 1344-28-1
Industrial, inhalative, Long-term - local effects: 15.63 mg/m <sup>3</sup> .
general population, inhalative, Long-term - systemic effects: 3.29 mg/kg bw/day.

**PNEC**

Substance
Aluminium oxide, CAS: 1344-28-1
sewage treatment plants (STP), 20 mg/l.
sediment (freshwater), 74.9 µg/l.

**KERAFOL Keramische Folien GmbH**  
92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 4 / 9

## 8.2 Exposure controls

<b>Additional advice on system design</b>	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.
<b>Eye protection</b>	Safety glasses. (EN 166:2001)
<b>Hand protection</b>	0,4mm: Nitrile rubber, >120 min (EN 374-1/-2/-3). 0,4mm, >120min, PVC (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
<b>Skin protection</b>	Protective clothing.
<b>Other</b>	none
<b>Respiratory protection</b>	Not required under normal conditions.
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	Comply with applicable environmental regulations limiting discharge to air, water and soil.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form</b>	pasty
<b>Color</b>	whitish
<b>Odor</b>	neutral
<b>Odour threshold</b>	No information available.
<b>pH-value</b>	not applicable
<b>pH-value [1%]</b>	not applicable
<b>Boiling point [°C]</b>	not applicable
<b>Flash point [°C]</b>	>300
<b>Flammability (solid, gas) [°C]</b>	not applicable
<b>Lower explosion limit</b>	not applicable
<b>Upper explosion limit</b>	not applicable
<b>Oxidising properties</b>	no
<b>Vapour pressure/gas pressure [kPa]</b>	not applicable
<b>Density [g/ml]</b>	2,1
<b>Bulk density [kg/m³]</b>	not applicable
<b>Solubility in water</b>	insoluble
<b>Partition coefficient [n-octanol/water]</b>	No information available.
<b>Viscosity</b>	42 Pas
<b>Relative vapour density determined in air</b>	not applicable
<b>Evaporation speed</b>	not applicable
<b>Melting point [°C]</b>	>500
<b>Autoignition temperature [°C]</b>	No information available.
<b>Decomposition temperature [°C]</b>	No information available.

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

**KERAFOL Keramische Folien GmbH**  
92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 5 / 9

## 10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

## 10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.

## 10.4 Conditions to avoid

No information available.

## 10.5 Incompatible materials

See SECTION 10.3.

## 10.6 Hazardous decomposition products

No dangerous reactions known if used as directed.  
In the event of fire: See SECTION 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product
ATE-mix, inhalative, >20 mg/l.
ATE-mix, dermal, >2000 mg/kg bw.
ATE-mix, oral, >2000 mg/kg bw.

  

Substance
Aluminium oxide, CAS: 1344-28-1
LD50, oral, Rat: >15900 mg/kg bw (OECD 401).
LC50, inhalative, Rat: >0.888 mg/l air (OECD 403).

<b>Serious eye damage/irritation</b>	Toxicological data of complete product are not available. Does not contain a relevant substance that meets the classification criteria.
<b>Skin corrosion/irritation</b>	Toxicological data of complete product are not available. Does not contain a relevant substance that meets the classification criteria.
<b>Respiratory or skin sensitisation</b>	Toxicological data of complete product are not available. Does not contain a relevant substance that meets the classification criteria.
<b>Specific target organ toxicity — single exposure</b>	Toxicological data of complete product are not available. Does not contain a relevant substance that meets the classification criteria.
<b>Specific target organ toxicity — repeated exposure</b>	Toxicological data of complete product are not available. Does not contain a relevant substance that meets the classification criteria.
<b>Mutagenicity</b>	Toxicological data of complete product are not available. Does not contain a relevant substance that meets the classification criteria.
<b>Reproduction toxicity</b>	Toxicological data of complete product are not available. Does not contain a relevant substance that meets the classification criteria.
<b>Carcinogenicity</b>	Toxicological data of complete product are not available. Does not contain a relevant substance that meets the classification criteria.
<b>Aspiration hazard</b>	Toxicological data of complete product are not available. Does not contain a relevant substance that meets the classification criteria.
<b>General remarks</b>	none

**KERAFOL Keramische Folien GmbH**  
92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 6 / 9

## SECTION 12: Ecological information

### 12.1 Toxicity

Substance
Aluminium oxide, CAS: 1344-28-1
LC50, (48h), Ceriodaphnia dubia: 0.72 mg/l (EPA/600/4-85/013).
LC50, (96h), Pimephales promelas: 1.16 mg/l (EPA/600/4-85/013).
NOEC, (72h), Pseudokirchneriella subcapitata: >0.044 mg/l (OECD 201).
NOEC, (6d), Ceriodaphnia dubia: 1.02 mg/l (EPA/600/4-89/001).
NOEC, (8d), Pimephales promelas: 0.63 mg/l (EPA/600/4-89/001).

### 12.2 Persistence and degradability

**Behaviour in environment compartments** No information available.

**Behaviour in sewage plant** No information available.

**Biological degradability** No information available.

### 12.3 Bioaccumulative potential

Accumulation in organisms is not expected.

### 12.4 Mobility in soil

Spillages may penetrate the soil causing ground water contamination.

### 12.5 Results of PBT and vPvB assessment

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

### 12.6 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

**KERAFOL Keramische Folien GmbH**  
92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 7 / 9

#### SECTION 14: Transport information

##### 14.1 UN 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

##### 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

**KERAFOL Keramische Folien GmbH**  
92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 8 / 9

#### 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 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

**EEC-REGULATIONS** 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

**TRANSPORT-REGULATIONS** DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2017).

**NATIONAL REGULATIONS (GB):** EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4

- Observe employment restrictions for people none

- VOC (2010/75/CE) not applicable

#### 15.2 Chemical safety assessment

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



KERAFOL Keramische Folien GmbH

92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 9 / 9

**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  
 ELINCS = European List of Notified Chemical Substances  
 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  
 LC50 = Lethal concentration, 50%  
 LD50 = Median lethal dose  
 LC0 = lethal concentration, 0%  
 LOAEL = lowest-observed-adverse-effect level  
 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

none



Copyright: Chemiebüro®



KERAFOL Keramische Folien GmbH

92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 1 / 9

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Keratherm®-Bond 100RT, Comp. B****1.2 Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Relevant uses**Adhesive  
2-Component product**1.2.2 Uses advised against**

None known.

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

**Company** KERAFOL Keramische Folien GmbH  
 Koppe-Platz 1  
 92676 Eschenbach / GERMANY  
 Phone +49 (0) 9645 88-300  
 Fax +49 (0) 9645 88-390  
 Homepage www.kerapfol.com  
 E-mail info@kerapfol.com

**Address enquiries to**

**Technical information** info@kerapfol.com  
**Safety Data Sheet** sdb@chemiebuero.de

**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**

No classification.

**2.2 Label elements**

The product does not require a hazard warning label in accordance with GHS/CLP-directives.

**2.3 Other hazards****Other hazards** none**SECTION 3: Composition / Information on ingredients****Product-type:**

The product is a mixture.

Range [%]	Substance
50 - 80	Aluminium oxide CAS: 1344-28-1, EINECS/ELINCS: 215-691-6, Reg-No.: 01-2119529248-35-XXXX
<25	C.I. Pigment rot 101 Eisen(III)oxid CAS: 1309-37-1, EINECS/ELINCS: 215-168-2, Reg-No.: 01-2119457614-35-XXXX

**Comment on component parts**No hazardous components to be mentioned.  
Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.

KERAFOL Keramische Folien GmbH

92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 2 / 9

#### 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.
<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>	Do not induce vomiting. Rinse out mouth and give plenty of water to drink. Seek medical advice.

##### 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.  
Forward this sheet to the doctor.

#### SECTION 5: Fire-fighting measures

##### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Alcohol-resistant foam. Water mist. Carbon dioxide.
<b>Extinguishing media that must not be used</b>	Full water jet. Dry powder.

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

risk of formation of toxic pyrolysis products, carbon monoxide (CO), not combusted hydrocarbons

##### 5.3 Advice for firefighters

Use self-contained breathing apparatus.  
Cool containers at risk with water spray jet.  
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

#### SECTION 6: Accidental release measures

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

Ensure adequate ventilation.  
Keep away from all sources of ignition.  
Wear suitable protective equipment. For personal protection see SECTION 8.  
Some risk of slipping due to spillage of product.

##### 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.  
Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth).  
Dispose of absorbed material in accordance within the regulations.

##### 6.4 Reference to other sections

See SECTION 8+13

KERAFOL Keramische Folien GmbH

92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 3 / 9

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Use only in well-ventilated areas.  
 Avoid contact with eyes and skin. Use personal protective equipment.  
 No special measures necessary.  
 Do not eat, drink or smoke when using this product.  
 Wash hands before breaks and after work.  
 Use barrier skin cream.  
 Take off contaminated clothing and wash before reuse.

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

Keep only in original container.  
 Do not store together with oxidizing agents.  
 Keep container in a well-ventilated place.  
 Keep container tightly closed.  
 Protect from heat/overheating.

**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)**

Substance
Aluminium oxide
CAS: 1344-28-1, EINECS/ELINCS: 215-691-6, Reg-No.: 01-2119529248-35-XXXX
Long-term exposure: 10 mg/m <sup>3</sup> , inhalable dust (respirable dust: 4 mg/m <sup>3</sup> )

**DNEL**

Substance
Aluminium oxide, CAS: 1344-28-1
Industrial, inhalative, Long-term - local effects: 15.63 mg/m <sup>3</sup> .
general population, inhalative, Long-term - systemic effects: 3.29 mg/kg bw/day.
C.I. Pigment rot 101 Eisen(III)oxid, CAS: 1309-37-1
Industrial, inhalative, Long-term - local effects: 10 mg/m <sup>3</sup> .

**PNEC**

Substance
Aluminium oxide, CAS: 1344-28-1
sewage treatment plants (STP), 20 mg/l.
sediment (freshwater), 74.9 µg/l.

**KERAFOL Keramische Folien GmbH**  
92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 4 / 9

## 8.2 Exposure controls

<b>Additional advice on system design</b>	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.
<b>Eye protection</b>	Safety glasses. (EN 166:2001)
<b>Hand protection</b>	0,4mm: Nitrile rubber, >120 min (EN 374-1/-2/-3). 0,4mm, >120min, PVC (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
<b>Skin protection</b>	Protective clothing.
<b>Other</b>	none
<b>Respiratory protection</b>	Not required under normal conditions.
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	Comply with applicable environmental regulations limiting discharge to air, water and soil.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form</b>	pasty
<b>Color</b>	brown
<b>Odor</b>	neutral
<b>Odour threshold</b>	No information available.
<b>pH-value</b>	not applicable
<b>pH-value [1%]</b>	not applicable
<b>Boiling point [°C]</b>	not applicable
<b>Flash point [°C]</b>	>300
<b>Flammability (solid, gas) [°C]</b>	not applicable
<b>Lower explosion limit</b>	not applicable
<b>Upper explosion limit</b>	not applicable
<b>Oxidising properties</b>	no
<b>Vapour pressure/gas pressure [kPa]</b>	not applicable
<b>Density [g/ml]</b>	2,1
<b>Bulk density [kg/m³]</b>	not applicable
<b>Solubility in water</b>	insoluble
<b>Partition coefficient [n-octanol/water]</b>	No information available.
<b>Viscosity</b>	29 Pas
<b>Relative vapour density determined in air</b>	not applicable
<b>Evaporation speed</b>	not applicable
<b>Melting point [°C]</b>	>500
<b>Autoignition temperature [°C]</b>	No information available.
<b>Decomposition temperature [°C]</b>	No information available.

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

**KERAFOL Keramische Folien GmbH**  
**92676 Eschenbach**

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 5 / 9

**10.2 Chemical stability**

Stable under normal ambient conditions (ambient temperature).

**10.3 Possibility of hazardous reactions**

Reactions with strong oxidizing agents.

**10.4 Conditions to avoid**

No information available.

**10.5 Incompatible materials**

See SECTION 10.3.

**10.6 Hazardous decomposition products**

No dangerous reactions known if used as directed.

In the event of fire: See SECTION 5.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Product
ATE-mix, inhalative, >20 mg/l.
ATE-mix, dermal, >2000 mg/kg bw.
ATE-mix, oral, >2000 mg/kg bw.
Substance
Aluminium oxide, CAS: 1344-28-1
LD50, oral, Rat: >15900 mg/kg bw (OECD 401).
LC50, inhalative, Rat: >0.888 mg/l air (OECD 403).
C.I. Pigment rot 101 Eisen(III)oxid, CAS: 1309-37-1
LD50, oral, Rat: >5000 mg/kg bw (EU Method B.1).
LC50, inhalative, Rat: 5.05 mg/l air (OECD 403).

**Serious eye damage/irritation**Toxicological data of complete product are not available.  
Does not contain a relevant substance that meets the classification criteria.**Skin corrosion/irritation**Toxicological data of complete product are not available.  
Does not contain a relevant substance that meets the classification criteria.**Respiratory or skin sensitisation**Toxicological data of complete product are not available.  
Does not contain a relevant substance that meets the classification criteria.**Specific target organ toxicity — single exposure**Toxicological data of complete product are not available.  
Does not contain a relevant substance that meets the classification criteria.**Specific target organ toxicity — repeated exposure**Toxicological data of complete product are not available.  
Does not contain a relevant substance that meets the classification criteria.**Mutagenicity**Toxicological data of complete product are not available.  
Does not contain a relevant substance that meets the classification criteria.**Reproduction toxicity**Toxicological data of complete product are not available.  
Does not contain a relevant substance that meets the classification criteria.**Carcinogenicity**Toxicological data of complete product are not available.  
Does not contain a relevant substance that meets the classification criteria.**Aspiration hazard**Toxicological data of complete product are not available.  
Does not contain a relevant substance that meets the classification criteria.**General remarks**

none

KERAFOL Keramische Folien GmbH

92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 6 / 9

**SECTION 12: Ecological information****12.1 Toxicity**

Substance
Aluminium oxide, CAS: 1344-28-1
LC50, (48h), Ceriodaphnia dubia: 0.72 mg/l (EPA/600/4-85/013).
LC50, (96h), Pimephales promelas: 1.16 mg/l (EPA/600/4-85/013).
NOEC, (72h), Pseudokirchneriella subcapitata: >0.044 mg/l (OECD 201).
NOEC, (6d), Ceriodaphnia dubia: 1.02 mg/l (EPA/600/4-89/001).
NOEC, (8d), Pimephales promelas: 0.63 mg/l (EPA/600/4-89/001).
C.I. Pigment rot 101 Eisen(III)oxid, CAS: 1309-37-1
EL50, (48h), Daphnia magna: > 100 mg/l.
LC0, (96h), Danio rerio: > 50000 mg/l.

**12.2 Persistence and degradability**

<b>Behaviour in environment compartments</b>	No information available.
<b>Behaviour in sewage plant</b>	No information available.
<b>Biological degradability</b>	No information available.

**12.3 Bioaccumulative potential**

Accumulation in organisms is not expected.

**12.4 Mobility in soil**

Spillages may penetrate the soil causing ground water contamination.

**12.5 Results of PBT and vPvB assessment**

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

**12.6 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

**KERAFOL Keramische Folien GmbH**  
92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 7 / 9

#### SECTION 14: Transport information

##### 14.1 UN 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

##### 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



**KERAFOL Keramische Folien GmbH**  
**92676 Eschenbach**

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 8 / 9

#### 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 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

**EEC-REGULATIONS** 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

**TRANSPORT-REGULATIONS** DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2017).

**NATIONAL REGULATIONS (GB):** EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4

- Observe employment restrictions for people none

- VOC (2010/75/CE) not applicable

#### 15.2 Chemical safety assessment

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

KERAFOL Keramische Folien GmbH

92676 Eschenbach

Date printed 20.04.2017, Revision 20.04.2017

Version 01

Page 9 / 9

**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  
 ELINCS = European List of Notified Chemical Substances  
 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  
 LC50 = Lethal concentration, 50%  
 LD50 = Median lethal dose  
 LC0 = lethal concentration, 0%  
 LOAEL = lowest-observed-adverse-effect level  
 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**

none

**Copyright: Chemiebüro®**