



## SAFETY DATA SHEET ACCORDING TO (EC) NO 1907/2006

*Terokal TK 400 Foam adhesive for Roofing Membranes*

*sds no. : 352953*

*V002.0*

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### Contact Details:

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## 1. Identification of the substance/mixture and of the company/undertaking

### Product identifier:

Terokal TK 400 Foam adhesive for Roofing Membranes

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

Intended use:

Assembly foam

### 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 4008

[ua-productsafety.de@henkel.com](mailto:ua-productsafety.de@henkel.com)

### 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.

The product is notified at the 'Information Centers for Cases of Poisoning in Germany'. These centers provide information by telephone day and night in poisoning cases. Central emergency phone number: ++49 (0) 30 19240

## 2. Hazards identification

### Classification of the substance or mixture:

#### Classification (DPD):

F+ - Extremely flammable

R12 Extremely flammable.

Xn - Harmful

R42/43 May cause sensitization by inhalation and skin contact.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Xi - Irritant

R36/37/38 Irritating to eyes, respiratory system and skin.

carcinogenic, category 3

R40 Limited evidence of a carcinogenic effect.

## Label elements (DPD):

F+ - Extremely flammable Xn - Harmful



### Risk phrases:

R12 Extremely flammable.  
R36/37/38 Irritating to eyes, respiratory system and skin.  
R40 Limited evidence of a carcinogenic effect.  
R42/43 May cause sensitization by inhalation and skin contact.  
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

### Safety phrases:

S2 Keep out of the reach of children.  
S23 Do not breathe vapour.  
S24/25 Avoid contact with skin and eyes.  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S46 If swallowed, seek medical advice immediately and show this container or label.  
S51 Use only in well-ventilated areas.  
S56 Dispose of this material and its container to hazardous or special waste collection point.

### Additional labeling:

Contains isocyanates. See information supplied by the manufacturer.  
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking.  
Keep out of the reach of children

### Contains:

Diphenylmethane-diisocyanate, isomers and homologues

### Other hazards:

Solvents contained in the product evaporate during processing and their vapors can form explosive/highly inflammable air/vapor mixtures.

Information according to XVII. 56 REACH

Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

## 3. Composition/information on ingredients

### General chemical description:

1-Component PU foam in pressurized can

### Base substances of preparation:

Polyurethane prepolymer  
Propellant gas base: difluoroethane  
Propellant gas base: Dimethylether

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Diphenylmethane-diisocyanate, isomers and homologues 9016-87-9	202-966-0	< 12 %	Specific target organ toxicity - single exposure 3 H335 Skin irritation 2 H315 Respiratory sensitizer 1 H334 Acute toxicity 4; Inhalation H332 Specific target organ toxicity - repeated exposure 2 H373 Carcinogenicity 2 H351 Skin sensitizer 1 H317 Serious eye irritation 2 H319
Dimethyl ether 115-10-6	204-065-8	< 5 %	Flammable gases 1 H220 Gases under pressure

Only dangerous ingredients for which a CLP classification is already available are displayed in this table.

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.

**Declaration of ingredients according to DPD (EC) No 1999/45:**

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
1,1-Difluoroethane 75-37-6	200-866-1	< 15 %	F+ - Extremely flammable; R12
Diphenylmethane-diisocyanate, isomers and homologues 9016-87-9	202-966-0	< 12 %	Xi - Irritant; R36/37/38 carcinogenic, category 3; R40 Xn - Harmful; R20, R48/20 R42/43
Dimethyl ether 115-10-6	204-065-8	< 5 %	F+ - Extremely flammable; R12

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.

Substances without classification may have community workplace exposure limits available.

## 4. First aid measures

**Description of first aid measures:**

## General information:

In case of adverse health effects seek medical advice.

## Inhalation:

Move to fresh air, consult doctor if complaint persists.

## Skin contact:

Fresh foam : Wipe off affected skin area immediately with a soft cloth and then remove residues with vegetable oil; apply skin care product. Cured foam can be removed only mechanically.

## Eye contact:

Immediately flush eyes with water, put on a bandage with sterile gauze, see an oculist.

## Ingestion:

Rinse out mouth. Do not drink.

Do not induce vomiting, seek medical advice immediately.

**Most important symptoms and effects, both acute and delayed:**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

EYE: Irritation, conjunctivitis.

SKIN: Redness, inflammation.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

SKIN: Rash, Urticaria.

**Indication of any immediate medical attention and special treatment needed:**

See section: Description of first aid measures

## 5. Firefighting measures

**Extinguishing media:****Suitable extinguishing media:**

carbon dioxide  
Foam  
powder

**Extinguishing media which must not be used for safety reasons:**

Water

**Special hazards arising from the substance or mixture:**

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) can be released.  
Can form explosive gas/air mixtures.

**Advice for firefighters:**

Wear self-contained breathing apparatus.  
Wear protective equipment.

## 6. Accidental release measures

**General information:**

Keep away from sources of ignition and naked flames.

**Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation.  
Wear protective equipment.  
Avoid contact with skin and eyes.

**Environmental precautions:**

Do not empty into drains / surface water / ground water.

**Methods and material for containment and cleaning up:**

Remove mechanically.  
Dispose of contaminated material as waste according to Chapter 13.

**Reference to other sections:**

See advice in chapter 8

## 7. Handling and storage

**Precautions for safe handling:**

Avoid skin and eye contact.  
Ventilate working rooms thoroughly. Avoid naked flames, sparking and sources of ignition. Switch off electrical devices. Do not smoke, do not weld. Do not empty waste into waste water drains.  
Transport by automobile: leave the container wrapped in a cloth in the trunk, never in the passenger area.  
The product is not self-igniting.

**Hygiene measures:**

- Avoid skin and eye contact.
- Immediately remove soiled or soaked clothing.
- Do not breath vapours.
- Do not eat, drink or smoke while working.
- When using the product avoid alcohol consumption.
- Remove any dirt that gets onto the skin with vegetable oil; skin care.

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

- For pressurized can: protect from direct sunshine and temperatures above 50°C.
- Store in a cool, dry place.
- Ensure that storage and workrooms are adequately ventilated.
- < + 30 °C
- Do not store together with food or other consumables (coffee, tea, tobacco, etc.).
- Do not store together with substances which can be oxidized.
- Do not store together with flammable substances/solutions.

**Specific end use(s):**

Assembly foam

**8. Exposure controls/personal protection**
**Control parameters:**

- Valid for
  - Germany
- Basis
  - Germany - Occupational Exposure Limits

Ingredient	ppm	mg/m3	Type	Category	Remarks
Dimethyl ether 115-10-6	1.000	1.900	Short Term Exposure Classification:	Category II: substances with a resorptive effect. 8	TRGS 900
Dimethyl ether 115-10-6			AGW:		TRGS 900
DIMETHYLETHER 115-10-6			Time Weighted Average (TWA):		Indicative
4,4'-Methylenediphenyl diisocyanate 101-68-8		0,05	STEL factor:	1 Substance listed with both Peak factor and STEL factor. The Peak factor is supplied with the AGW values. Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages. =2= If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
4,4'-Methylenediphenyl diisocyanate 101-68-8			Short Term Exposure Classification:		TRGS 900
4,4'-Methylenediphenyl diisocyanate 101-68-8			AGW:		TRGS 900

**Exposure controls:****Respiratory protection:**

- When processing large amounts.
- Suitable breathing mask when there is inadequate ventilation.
- Combination filter: A1-B1-P2

**Hand protection:**

- Recommended are gloves made from Nitril rubber ( Material thickness >0,1 mm).Gloves should be replaced after each short time contact or contamination. Available at laboratory specialized trade or at pharmacies / chemist's shops.

**Eye protection:**

- Goggles which can be tightly sealed.

Skin protection:  
Suitable protective clothing

## 9. Physical and chemical properties

### Information on basic physical and chemical properties:

Appearance	Pressurized can pasty brown
Odor	characteristic
pH	No data available.
Initial boiling point	No data available.
Flash point	No data available.
Decomposition temperature	No data available.
Vapour pressure	No data available.
Density	No data available.
Bulk density	No data available.
Viscosity	No data available.
Viscosity (kinematic)	No data available.
Explosive properties	No data available.
Solubility (qualitative) (23 °C (73.4 °F))	Reacts with water: generation of heat.
Solidification temperature	No data available.
Melting point	No data available.
Flammability	No data available.
Auto-ignition temperature	No data available.
Explosive limits	
lower	4,00 %(V)
upper	18,50 %(V)
Partition coefficient: n-octanol/water	No data available.
Evaporation rate	No data available.
Vapor density	No data available.
Oxidising properties	No data available.

### Other information:

No data available.

## 10. Stability and reactivity

### Reactivity:

Reacts with amines, alcohols, acids and alkalis.  
Reacts with strong oxidants.  
Reacts with water: generation of heat.

### Chemical stability:

Stable under recommended storage conditions.

### Possibility of hazardous reactions:

See section reactivity

### Conditions to avoid:

Container may burst when heated to over 50°C. The contents may form explosive, combustible mixture. Avoid ignition sources and naked flames. Comply with warning on container label.

### Incompatible materials:

None if used properly.

### Hazardous decomposition products:

None known

## 11. Toxicological information

### General toxicological information:

Cross-reactions with other isocyanate compounds are possible.

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

### Sensitizing:

May cause sensitization by inhalation.

May cause sensitization by skin contact.

### Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Dimethyl ether 115-10-6	negative	bacterial forward mutation assay	with and without		

### Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Dimethyl ether 115-10-6	NOAEL=> 10000 ppm	inhalation	4 week 6 hours/day, 5 days/week	rat	

## 12. Ecological information

### General ecological information:

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

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

### Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
1,1-Difluoroethane 75-37-6	LC50	356 mg/l	Fish	48 h	Leuciscus idus melanotus	
1,1-Difluoroethane 75-37-6	EC50	383 mg/l	Daphnia	24 h	Daphnia magna	
1,1-Difluoroethane 75-37-6	EC50	> 433 mg/l	Algae	96 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dimethyl ether 115-10-6	LC50	> 4.000 mg/l	Fish	96 h	Poecilia reticulata	OECD Guideline 203 (Fish, Acute Toxicity Test)
Dimethyl ether 115-10-6	EC50	> 4.000 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Dimethyl ether 115-10-6	EC50	> 1.000 mg/l	Algae			OECD Guideline 201 (Alga, Growth Inhibition Test)

### Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
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Dimethyl ether 115-10-6	under test conditions no biodegradation observed	aerobic	5 %	EU Method C.4-A (Determination of the "Ready" BiodegradabilityDissolved Organic Carbon (DOC) Die-Away Test)
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#### Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
1,1-Difluoroethane 75-37-6	0,75					
Dimethyl ether 115-10-6	0,1					

### 13. Disposal considerations

#### Waste treatment methods:

##### Product disposal:

Collection and delivery to recycling enterprise or other registered elimination institution.

Small amounts of cured or dried product residues can be disposed of as household waste or as industrial waste similar to household waste.

The valid EEC waste code numbers are not product-related but are largely source-related. These can be requested from the manufacturer.

##### Disposal of uncleaned packages:

Completely empty pressurized gas containers (including propellant gas).

Only empty containers are to be disposed of as recoverable materials.

Empty PU foam canisters should be returned in the original carton to PDR GmbH, D-95449 Thurnau (free of charge collection service under tel.: 0800-783 6736, Fax: 0800-783 6737) for recycling. They can also be delivered to any general cargo collection point of the Deutsche Bahn AG. Individual containers should be disposed of at communal collection points.

##### Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

### 14. Transport information

#### Road transport ADR:

Class: 2  
Packaging group:  
Classification code: 5F  
Hazard ident. number:  
UN no.: 1950  
Label: 2.1  
Technical name: AEROSOLS  
Tunnelcode: (D)

#### Railroad transport RID:

Class: 2  
Packaging group:  
Classification code: 5F  
Hazard ident. number: 23  
UN no.: 1950  
Label: 2.1  
Technical name: AEROSOLS  
Tunnelcode:

**Inland water transport ADN:**

Class: 2  
Packaging group:  
Classification code: 5F  
Hazard ident. number:  
UN no.: 1950  
Label: 2.1  
Technical name: AEROSOLS

**Marine transport IMDG:**

Class: 2.1  
Packaging group:  
UN no.: 1950  
Label: 2.1  
EmS: F-D ,S-U  
Seawater pollutant: -  
Proper shipping name: AEROSOLS

**Air transport IATA:**

Class: 2.1  
Packaging group:  
Packaging instructions (passenger) 203  
Packaging instructions (cargo) 203  
UN no.: 1950  
Label: 2.1  
Proper shipping name: Aerosols, flammable

**15. Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture:**

VOC content 9,5 %  
(VOCV 814.018 VOC regulation  
CH)

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

WGK: 1, slightly water-endangering product. (German VwVwS of May 17, 1999 )  
Classification in conformity with the calculation method

BG regulations, rules, infos: BG data sheet: BGI 524 Hazardous substances: polyurethane production  
and processing / isocyanates (M 044)  
BG regulation: BGV B 1 Handling hazardous substances

Storage class VCI: 2B

GISCODE: PU80 PU assembly foams, highly flammable

## 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:

R12 Extremely flammable.

R20 Harmful by inhalation.

R36/37/38 Irritating to eyes, respiratory system and skin.

R40 Limited evidence of a carcinogenic effect.

R42/43 May cause sensitization by inhalation and skin contact.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

H220 Extremely flammable gas.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

### Further information:

The product is intended for industrial use.

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.

### Contact Details:

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