

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

**KOESTER Geofam B**

Revision date: 17.06.2015

Product code: IN293b

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

KOESTER Geofam B

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

for professional use only Building and construction work.

**Uses advised against**

No identified use(s).

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

Company name:	KOESTER BAUCHEMIE AG	
Street:	Dieselstrasse 1 - 10	
Place:	D-26607 Aurich	
Telephone:	+49-4941-9709-0	Telefax: +49-4941-9709-40
e-mail (Contact person):	produktsicherheit@koester.eu	
Internet:	www.koester.eu	
Responsible Department:	Forschung & Entwicklung	

**1.4. Emergency telephone number:** +49-551-19240 (24 h, Giftinformationszentrum Nord)**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Resp. Sens. 1

Respiratory or skin sensitisation: Skin Sens. 1

Carcinogenicity: Carc. 2

Specific target organ toxicity - single exposure: STOT SE 3

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazard Statements:

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

Harmful if inhaled.

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

May cause respiratory irritation.

Suspected of causing cancer.

May cause damage to organs through prolonged or repeated exposure.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate

**Signal word:** Danger

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**Pictograms:****Hazard statements**

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.

**Precautionary statements**

P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P285	In case of inadequate ventilation wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P362	Take off contaminated clothing.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

## SECTION 3: Composition/information on ingredients

**3.2. Mixtures****Chemical characterization**

Isocyanate containing product.

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate			< 100 %
	202-966-0	615-005-00-9		
	Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373			

Full text of H and EUH statements: see section 16.

## SECTION 4: First aid measures

**4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection! Wear personal protection equipment.

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#### After inhalation

Provide fresh air. In case of breathing difficulties administer oxygen. Medical treatment necessary. In case of irregular breathing or respiratory arrest provide artificial respiration.

#### After contact with skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Medical treatment necessary.

#### After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

#### After ingestion

Rinse mouth immediately and drink plenty of water.  
Caution if victim vomits: Risk of aspiration!

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. Suitable extinguishing media: Dry extinguishing powder. Carbon dioxide (CO<sub>2</sub>). Foam.

#### Unsuitable extinguishing media

High power water jet.

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

Special exposure hazards arising from the substance itself, combustion products, resulting gases: Isocyanates. Hydrocyanic acid (hydrocyanic acid).

### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit.

#### Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment. Remove persons to safety.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed containers for disposal. Treat the recovered material as prescribed in the section on waste disposal.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

#### Advice on protection against fire and explosion

Usual measures for fire prevention.

#### Further information on handling

Due to gaseous decomposition products, overpressure can occur in tightly sealed containers.

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

##### **Requirements for storage rooms and vessels**

Keep container tightly closed. Protect from sunlight. Store in a well-ventilated place.

##### **Further information on storage conditions**

Keep the packing dry and well sealed to prevent contamination and absorption of humidity. Protect from sunlight. Store in a well-ventilated place.

#### 7.3. Specific end use(s)

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
-	Isocyanates, all (as -NCO) Except methyl isocyanate	-	0.02		TWA (8 h)	WEL
		-	0.07		STEL (15 min)	WEL

##### **Additional advice on limit values**

Preventive industrial medical examinations are to be offered.

#### 8.2. Exposure controls

##### **Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

##### **Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

##### **Eye/face protection**

Tightly sealed safety glasses.

##### **Hand protection**

Tested protective gloves are to be worn: Suitable material: NBR (Nitrile rubber). Breakthrough times and swelling properties of the material must be taken into consideration.

##### **Skin protection**

Wear suitable protective clothing. When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

##### **Respiratory protection**

Respiratory protection necessary at: insufficient ventilation. gas filtering equipment (EN 141). Use only respiratory protection equipment with CE-symbol including four digit test number.

### SECTION 9: Physical and chemical properties

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

Physical state: liquid  
 Colour: brown  
 Odour: characteristic

##### **Changes in the physical state**

Melting point: < 0 °C  
 Flash point: > 200 °C

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**Explosive properties**

not explosive.

**Oxidizing properties**

Not oxidizing.

Vapour pressure:

0,0001 hPa

Density:

1,24 g/cm<sup>3</sup>

Water solubility:

not miscible

Viscosity / dynamic:

300 mPa·s

(at 23 °C)

Vapour density:

8,5

(at 23 °C)

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

Reacts with : Water. Formation of: Carbon dioxide. Hydrolyses to form water-insoluble compounds.

**10.2. Chemical stability**

No risks worthy of mention.

**10.3. Possibility of hazardous reactions**

Exothermic reactions with: Alcohols. amines. hazardous polymerization.

**10.4. Conditions to avoid**

Protect from sunlight. Store in a well-ventilated place.

**10.5. Incompatible materials**

No risks worthy of mention.

**10.6. Hazardous decomposition products**

Carbon dioxide.

## SECTION 11: Toxicological information

**11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

No information available.

**Acute toxicity**

Acute toxicity, inhalant.

**ATEmix calculated**

ATE (inhalative vapour) 11,22 mg/l; ATE (inhalative aerosol) 1,531 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate				
	oral	LD50 9200 mg/kg	Rat	GESTIS	
	inhalative vapour	ATE 11 mg/l			
	inhalative aerosol	ATE 1,5 mg/l			

**Irritation and corrosivity**

Irritating to eyes. Following inhalation: Lung irritation. Coughing. shortage of breath. After skin contact: irritant.

Following eye contact: irritant.

After skin contact: irritant.

In rare cases the product can cause temporary erythema of the skin.

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#### Sensitising effects

May cause sensitization by inhalation and skin contact.

#### Carcinogenic/mutagenic/toxic effects for reproduction

May cause cancer. Evidence exists for mutagenicity in vivo .

#### STOT-repeated exposure

Danger of serious damage to health by prolonged exposure.

#### Specific effects in experiment on an animal

No information available.

#### Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

### SECTION 12: Ecological information

#### 12.1. Toxicity

No harm to water organisms up to the tested concentration.

#### 12.2. Persistence and degradability

Hydrolysis to bindings insoluble in water. Product is not easily biodegradable.

#### 12.3. Bioaccumulative potential

No indication of bioaccumulation potential. Does not accumulate in organisms.

#### 12.4. Mobility in soil

No information available. Hydrolysis to bindings insoluble in water.

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

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

#### Further information

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Advice on disposal

Dispose of waste according to applicable legislation.

##### Contaminated packaging

Water (with cleaning agent). Completely emptied packages can be recycled.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

##### 14.1. UN number:

No dangerous good in sense of this transport regulation.

##### 14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

##### 14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

##### 14.4. Packing group:

No dangerous good in sense of this transport regulation.

#### Inland waterways transport (ADN)

##### 14.1. UN number:

No dangerous good in sense of this transport regulation.

##### 14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

##### 14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

##### 14.4. Packing group:

No dangerous good in sense of this transport regulation.

#### Marine transport (IMDG)

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- 14.1. UN number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### **14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

#### **14.6. Special precautions for user**

No dangerous good in sense of this transport regulation.

#### **14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

No dangerous good in sense of this transport regulation.

### SECTION 15: Regulatory information

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

##### **EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 56: 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate

2004/42/EC (VOC): 98 % (1215,2 g/l)

##### **National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

### SECTION 16: Other information

#### **Relevant H and EUH statements (number and full text)**

- |      |  |
|------|--|
| 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.         |

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*