

## Safety Data Sheet

according to UK REACH Regulation

### KÖSTER IN 2 B

Revision date: 21.12.2022

Product code: IN\_220\_B

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

### 1.1. Product identifier

KÖSTER IN 2 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:	KÖSTER BAUCHEMIE AG	
Street:	Dieselstrasse 1 - 10	
Place:	D-26607 Aurich	
Telephone:	+49-4941-9709-0	Telefax: +49-4941-9709-40
e-mail:	info@koester.eu	
Contact person:	Forschung & Entwicklung	
e-mail:	produktsicherheit@koester.eu	
Internet:	www.koester.eu	

### 1.4. Emergency telephone number:

+49-551-19240 (24 h, Giftinformationszentrum Nord)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### GB CLP Regulation

Acute Tox. 4; H332  
Skin Irrit. 2; H315  
Eye Irrit. 2; H319  
Resp. Sens. 1; H334  
Skin Sens. 1; H317  
Carc. 2; H351  
STOT SE 3; H335  
STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

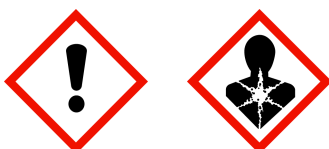
#### GB CLP Regulation

#### Hazard components for labelling

Methylenediphenyl diisocyanate, isomers and homologues

Signal word: Danger

Pictograms:



#### Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

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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**

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P284	Wear respiratory protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P321	Specific treatment (see SECTION 4: First aid measures on this label).
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P501	Dispose of contents/container to disposal according to local regulations.

**Special labelling of certain mixtures**

EUH204	Contains isocyanates. May produce an allergic reaction.
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**Additional advice on labelling**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

**2.3. Other hazards**

Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

**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 (GB CLP Regulation)			
9016-87-9	Methylenediphenyl diisocyanate, isomers and homologues			80 - < 100 %
	-	615-005-01-6		
	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.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
9016-87-9	-	Methylenediphenyl diisocyanate, isomers and homologues	80 - < 100 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: LC50 = 490 mg/l (dusts or mists); dermal: LD50 = > 9000 mg/kg; oral: LD50 = > 10000 mg/kg Skin Irrit. 2; H315: >= 5 - 100 Eye Irrit. 2; H319: >= 5 - 100 Resp. Sens. 1; H334: >= 0,1 - 100 STOT SE 3; H335: >= 5 - 100		

**Further Information**

Contains isocyanates. See information supplied by the manufacturer.

**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. Remove persons to safety.

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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!

**4.2. Most important symptoms and effects, both acute and delayed**

Sensitisation to the respiratory tract. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Symptoms can occur only after several hours. Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be exposed to any process in which this product is used.

**4.3. Indication of any immediate medical attention and special treatment needed**

May cause sensitisation especially in sensitive humans. Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours. Treat symptomatically.

**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**

The danger areas must be delimited and identified using relevant warning and safety signs. Move victim out of danger zone. 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****General advice**

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****Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Collect in closed

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containers for disposal. Treat the recovered material as prescribed in the section on waste disposal.

#### **6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### **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.

##### **Advice on general occupational hygiene**

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.

##### **Further information on handling**

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

#### **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.

##### **Hints on joint storage**

Do not store together with: Amines, Acid, Alcohols.

##### **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)**

Further information: see technical data sheet.

### **SECTION 8: Exposure controls/personal protection**

#### **8.1. Control parameters**

##### **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.

##### **Individual protection measures, such as personal protective equipment**

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

Tightly sealed safety glasses. EN 166.

##### **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. Thickness of glove material: min. 0,4 mm

##### **Skin protection**

Wear suitable protective clothing. When handling with chemical substances, protective clothing with CE-labels

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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
Melting point/freezing point:	< 0 °C
Flash point:	> 200 °C
Water solubility:	not miscible
Vapour pressure: (at 20 °C)	< 6 hPa
Density:	1,24 g/cm <sup>3</sup>
Relative vapour density: (at 23 °C)	8,5

**9.2. Other information****Information with regard to physical hazard classes**

Explosive properties

not explosive.

Oxidizing properties

Not oxidizing.

**Other safety characteristics**

Viscosity / dynamic:

200 mPa·s

(at 23 °C)

**Further Information**

No information available.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Reacts vigorously with water, including moisture in the air. Formation of: Carbon dioxide.

Reacts with : Alcohols. amines.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures. SECTION 7: Handling and storage.

**10.3. Possibility of hazardous reactions**

Exothermic reactions with: Alcohols. amines. hazardous polymerization. Heat: Thermal decomposition. Due to gaseous decomposition products, overpressure can occur in tightly sealed containers.

**10.4. Conditions to avoid**

Protect from sunlight. Store in a well-ventilated place. Do not mix with alkali. Do not mix with: water.

**10.5. Incompatible materials**

water, Amines, Etchant and acids, Metal.

**10.6. Hazardous decomposition products**

Carbon dioxide.

**SECTION 11: Toxicological information**

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**11.1. Information on hazard classes as defined in GB CLP Regulation**

**Toxicokinetics, metabolism and distribution**

No information available.

**Acute toxicity**

Acute toxicity, inhalant.

**ATEmix calculated**

ATE (inhalation vapour) 11,22 mg/l; ATE (inhalation dust/mist) 1,531 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
9016-87-9	Methylenediphenyl diisocyanate, isomers and homologues				
	oral	LD50 > 10000 mg/kg	Rat		
	dermal	LD50 > 9000 mg/kg	Rat		
	inhalation vapour	ATE 11 mg/l			
	inhalation (4 h) dust/mist	LC50 490 mg/l	Rat		

**Information on likely routes of exposure**

ingestion.

**Specific effects in experiment on an animal**

No information available.

**Additional information on tests**

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

**Practical experience**

No information available.

**11.2. Information on other hazards**

**Other information**

No information available.

**SECTION 12: Ecological information**

**12.1. Toxicity**

There are no data available on the mixture itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
9016-87-9	Methylenediphenyl diisocyanate, isomers and homologues					
	Acute fish toxicity	LC50 > 1000 mg/l	96 h	Danio rerio (zebrafish)		
	Acute crustacea toxicity	EC50 > 1000 mg/l	48 h	Daphnia magna (Big water flea)		
	Acute bacteria toxicity	(EC50 > 100 mg/l)	3 h	Respiratory inhibition of municipal activated sludge.		

**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.

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**12.4. Mobility in soil**

No information available.

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

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

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

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No risks worthy of mention.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Dispose of waste according to applicable legislation.

**List of Wastes Code - residues/unused products**

080501 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes not otherwise specified in 08; waste isocyanates; hazardous waste

**List of Wastes Code - used product**

080501 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes not otherwise specified in 08; waste isocyanates; hazardous waste

**Contaminated packaging**

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

**SECTION 14: Transport information****Land transport (ADR/RID)****Other applicable information (land transport)**

No dangerous good in sense of these transport regulations.

**Inland waterways transport (ADN)****Other applicable information (inland waterways transport)**

No dangerous good in sense of these transport regulations.

**Marine transport (IMDG)****Other applicable information (marine transport)**

No dangerous good in sense of these transport regulations.

**Air transport (ICAO-TI/IATA-DGR)****Other applicable information (air transport)**

No dangerous good in sense of these transport regulations.

**14.6. Special precautions for user**

SECTION 6: Accidental release measures

SECTION 7: Handling and storage

SECTION 8: Exposure controls/personal protection

**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**

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**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

2004/42/EC (VOC): < 1 %

**National regulatory information**

Water hazard class (D): 1 - slightly hazardous to water

**Additional information**

0-3

**15.2. Chemical safety assessment**

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

**SECTION 16: Other information**

**Classification for mixtures and used evaluation method according to GB CLP Regulation**

Classification	Classification procedure
Acute Tox. 4; H332	Calculation method
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Resp. Sens. 1; H334	Calculation method
Skin Sens. 1; H317	Calculation method
Carc. 2; H351	Calculation method
STOT SE 3; H335	Calculation method
STOT RE 2; H373	Calculation method

**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.
EUH204	Contains isocyanates. May produce an allergic reaction.

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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