

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### GermanBond Härter M

Revision date: 06.09.2018

Product code: 64

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

### 1.1. Product identifier

GermanBond Härter M

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

#### Use of the substance/mixture

Hardener, Adhesives, sealants, Reserved for industrial and professional use.

#### Uses advised against

Do not use for private purposes (household).

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

Company name:	germanBelt GmbH	
Street:	Carl-Vollrath-Str. 8	
Place:	D-07422 Bad Blankenburg	
Telephone:	+49 (0)36741 / 5680-0	Telefax: +49 (0)36741 / 5680-70
e-mail:	sales@germanbelt.de	

### 1.4. Emergency telephone number:

Giftnotruf England: +44 (171) 635 91 91, Giftnotruf England: +44 (171) 635 91 91, Giftnotruf Norwegen: +47 (22) 591 300,

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No. 1272/2008

Hazard Statements:

Causes skin irritation.

Causes serious eye damage.

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

May cause an allergic skin reaction.

Suspected of causing cancer.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

### 2.2. Label elements

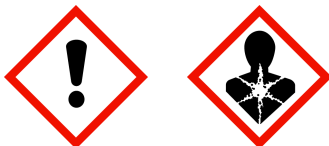
#### Regulation (EC) No. 1272/2008

#### Hazard components for labelling

Dichlormethan, Isocyanic acid, polymethylenepolyphenylene ester, Dibutylzinndilaurat

Signal word: Danger

Pictograms:



#### Hazard statements

H315	Causes skin irritation.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

#### Precautionary statements

P261	Avoid breathing vapour / Aerosol.
P309+P311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

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P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	In case of inadequate ventilation wear respiratory protection.

**Special labelling of certain mixtures**

EUH204	Contains isocyanates. May produce an allergic reaction. Restricted to professional users.
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**SECTION 3: Composition/information on ingredients**
**3.2. Mixtures**
**Hazardous components**

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
75-09-2	dichloromethane, methylene chloride	60 - 100 %
	200-838-9	
	602-004-00-3	
	01-2119480404-41	
	Carc. 2; H351	
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester	13 - 30 %
	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	
77-58-7	Dibutylzinn-dilaurat	0,1 - 1 %
	201-039-8	
	Muta. 2, Repr. 1B, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1, STOT SE 1, STOT RE 1, Aquatic Acute 1, Aquatic Chronic 1; H341 H360FD H314 H318 H317 H370 H372 H400 H410	

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

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**
**General information**

Remove affected person from the danger area and lay down. Do not leave affected person unattended.

**After inhalation**

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of respiratory tract irritation, consult a physician.

**After contact with skin**

Wash with plenty of soap and water. Remove contaminated, saturated clothing immediately.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

**After ingestion**

If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. If unconscious place in recovery position and seek medical advice.

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

Irritating to eyes, respiratory system and skin. May cause an allergic skin reaction.

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

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least

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48 hours.

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

###### **Suitable extinguishing media**

alcohol resistant foam, Carbon dioxide (CO<sub>2</sub>), Dry extinguishing powder

###### **Unsuitable extinguishing media**

Full water jet

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

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

##### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Use water spray jet to protect personnel and to cool endangered containers.

#### SECTION 6: Accidental release measures

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

Use personal protection equipment. Provide adequate ventilation. Remove all sources of ignition. Remove persons to safety. The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

##### 6.2. Environmental precautions

Do not empty into 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).

##### 6.4. Reference to other sections

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**

Avoid release to the environment. Refer to special instructions/Safety data sheets., When using do not eat or drink.

###### **Advice on protection against fire and explosion**

Do not spray on naked flames or any incandescent material.

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

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

Keep only in the original container in a cool, well-ventilated place. Handle and open container with care. Put lids on containers immediately after use.

###### **Advice on storage compatibility**

Keep away from food, drink and animal feedingstuffs.

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

Keep container tightly closed in a cool place.

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

Hardener

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

##### 8.1. Control parameters

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#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
75-09-2	Dichloromethane	100	350		TWA (8 h)	WEL
		300	1060		STEL (15 min)	WEL

#### Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
75-09-2	Dichloromethane	carbon monoxide	30 ppm	end-tidal breath	Post shift

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**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
75-09-2	dichloromethane, methylene chloride			
Consumer DNEL, long-term		inhalation	systemic	353 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	systemic	353 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	systemic	706 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	4750 mg/kg bw/day
Worker DNEL, long-term		inhalation	local	88,3 mg/m <sup>3</sup>
Worker DNEL, acute		dermal	systemic	2395 mg/kg bw/day
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester			
Worker DNEL, acute		dermal	systemic	50 mg/kg bw/day
Worker DNEL, acute		inhalation	systemic	0,1 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	local	0,1 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	systemic	0,05 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	local	0,05 mg/m <sup>3</sup>
Consumer DNEL, acute		dermal	systemic	25 mg/kg bw/day
Consumer DNEL, acute		inhalation	systemic	0,05 mg/m <sup>3</sup>
Consumer DNEL, acute		oral	systemic	20 mg/kg bw/day
Consumer DNEL, acute		dermal	local	17,2 mg/cm <sup>2</sup>
Consumer DNEL, acute		inhalation	local	0,05 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	systemic	0,025 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	0,025 mg/m <sup>3</sup>
Worker DNEL, acute		dermal	local	28,7 mg/cm <sup>2</sup>
77-58-7	Dibutylzinn-dilaurat			
Worker DNEL, acute		dermal	systemic	1 mg/kg bw/day
Worker DNEL, acute		inhalation	systemic	0,07 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	0,2 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	0,01 mg/m <sup>3</sup>
Consumer DNEL, acute		dermal	systemic	0,5 mg/kg bw/day
Consumer DNEL, acute		inhalation	systemic	0,02 mg/m <sup>3</sup>
Consumer DNEL, acute		oral	systemic	0,01 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	0,08 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,003 mg/m <sup>3</sup>
Consumer DNEL, long-term		oral	systemic	0,002 mg/kg bw/day

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**PNEC values**

CAS No	Substance	Value
Environmental compartment		
75-09-2	dichloromethane, methylene chloride	
Freshwater		0,31 mg/l
Marine water		0,031 mg/l
Freshwater sediment		2,57 mg/kg
Marine sediment		0,262 mg/kg
Micro-organisms in sewage treatment plants (STP)		26 mg/l
Soil		0,33 mg/kg
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester	
Freshwater		1 mg/l
Marine water		0,1 mg/l
Micro-organisms in sewage treatment plants (STP)		1 mg/l
Soil		1 mg/kg
77-58-7	Dibutylzinn-dilaurat	
Freshwater		0,000463 mg/l
Marine water		0,0000463 mg/l
Freshwater sediment		0,05 mg/kg
Marine sediment		0,005 mg/kg
Secondary poisoning		0,2 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		0,0407 mg/kg

**8.2. Exposure controls**
**Appropriate engineering controls**

Provide adequate ventilation as well as local exhaust at critical locations.

**Protective and hygiene measures**

When using do not eat or drink.

**Eye/face protection**

Wear eye/face protection.

**Hand protection**

Suitable material: FKM (fluoro rubber), Polyethylene, Thickness of the glove material: 0.4 mm, Breakthrough time (maximum wearing time): 8 h, Unsuitable material: PVC (polyvinyl chloride), CR (polychloroprene, chloroprene rubber)

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

Use appropriate respiratory protection. Typ: AX, Colour: brown

**Environmental exposure controls**

Do not empty into drains. Do not allow to enter into soil/subsoil. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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## SECTION 9: Physical and chemical properties

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

Physical state:	Liquid
Colour:	brown
Odour:	sweetish

#### Test method

pH-Value:	not applicable
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#### Changes in the physical state

Melting point:	not applicable
Initial boiling point and boiling range:	40 °C
Sublimation point:	not applicable
Softening point:	not applicable
Pour point:	not applicable
Flash point:	> 62 °C
Sustaining combustion:	Not sustaining combustion

#### Flammability

Solid:	not applicable
Gas:	not applicable

Lower explosion limits:	13 vol. %	VDI 2263
Upper explosion limits:	22 vol. %	VDI 2263
Ignition temperature:	556 - 605 °C	

#### Auto-ignition temperature

Solid:	No data available
Gas:	No data available

Decomposition temperature:	No data available
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Vapour pressure: (at 20 °C)	475 hPa
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Partition coefficient:	No data available
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Viscosity / dynamic:	No data available
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Viscosity / kinematic:	No data available	ASTM D 445
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Flow time:	No data available	3 DIN 53211
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Vapour density:	8,5
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Evaporation rate:	No data available	ASTM D 3539
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Solvent separation test:	No data available
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Solvent content:	No data available
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### 9.2. Other information

Solid content:	No data available
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

There are no data available on the preparation/mixture itself.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

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#### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

#### 10.4. Conditions to avoid

Keep container tightly closed and at a temperature not exceeding 25 °C.

#### 10.5. Incompatible materials

There are no data available on the preparation/mixture itself.

#### 10.6. Hazardous decomposition products

No hazardous reaction when handled and stored according to provisions.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
75-09-2	dichloromethane, methylene chloride				
	oral	LD50 > 2000 mg/kg	Rat	OECD 401	
	dermal	LD50 > 2000 mg/kg	Rat	OECD 402	
	inhalative (4 h) vapour	LC50 86 mg/l	Mouse		
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester				
	oral	LD50 > 10000 mg/kg	Rat	OECD 401	
	dermal	LD50 >9400 mg/kg	Rabbit	OECD 402	
	inhalative vapour	ATE 11 mg/l			
	inhalative aerosol	ATE 1,5 mg/l			
77-58-7	Dibutylzinn-dilaurat				
	oral	LD50 2071 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rabbit		

### SECTION 12: Ecological information

#### 12.1. Toxicity



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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
75-09-2	dichloromethane, methylene chloride					
	Acute fish toxicity	LC50	193 mg/l	96 h	Pimephales promelas (fathead minnow)	Echa
	Acute crustacea toxicity	EC50	27 mg/l	48 h	Daphnia magna (Big water flea)	Echa
	Fish toxicity	NOEC	142 mg/l	28 d	Pimephales promelas (fathead minnow)	ECHA
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester					
	Acute fish toxicity	LC50	>1000 mg/l	96 h	Brachydanio rerio (zebra-fish)	OECD 203
	Acute algae toxicity	ErC50	>1640 mg/l	72 h	Desmodesmus subspicatus	OECD 201
77-58-7	Dibutylzinn-dilaurat					
	Acute crustacea toxicity	EC50	< 1 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202
	Acute bacteria toxicity	(> 1000 mg/l)		3 h		

**12.2. Persistence and degradability**

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
75-09-2	dichloromethane, methylene chloride			
		68 %	28	
	Readily biodegradable (according to OECD criteria). OECD 301D			
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester			
	Inherent Biodegradability: Modfield MITI Test (II)	0 %	28	
	Biodegradable. : No			
77-58-7	Dibutylzinn-dilaurat			
	OECD 302 C	23 %	39	
	Not readily biodegradable (according to OECD criteria)			

**12.3. Bioaccumulative potential**
**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
75-09-2	dichloromethane, methylene chloride	1,25
77-58-7	Dibutylzinn-dilaurat	4,44

**BCF**

CAS No	Chemical name	BCF	Species	Source
75-09-2	dichloromethane, methylene chloride	2 - 40		
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester	200	Cyprinus carpio (Common Carp)	
77-58-7	Dibutylzinn-dilaurat	30,9 - 812,8		

**12.4. Mobility in soil**

Reacts with : Water,

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

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

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**12.6. Other adverse effects**

No data available

**SECTION 13: Disposal considerations**
**13.1. Waste treatment methods**
**Advice on disposal**

Dispose of waste according to applicable legislation.

**Waste disposal number of waste from residues/unused products**

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

**Contaminated packaging**

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Packing which cannot be properly cleaned must be disposed of. Handle contaminated packages in the same way as the substance itself.

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

<b>14.1. UN number:</b>	UN 1593
<b>14.2. UN proper shipping name:</b>	DICHLOROMETHANE, mixture
<b>14.3. Transport hazard class(es):</b>	6.1
<b>14.4. Packing group:</b>	III
Hazard label:	6.1



Classification code:	T1
Special Provisions:	516
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	2
Hazard No:	60
Tunnel restriction code:	E

**Inland waterways transport (ADN)**

<b>14.1. UN number:</b>	UN 1593
<b>14.2. UN proper shipping name:</b>	DICHLOROMETHANE, mixture
<b>14.3. Transport hazard class(es):</b>	6.1
<b>14.4. Packing group:</b>	III
Hazard label:	6.1



Classification code:	T1
Special Provisions:	516 802
Limited quantity:	5 L
Excepted quantity:	E1

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**Marine transport (IMDG)**

<b>14.1. UN number:</b>	UN 1593
<b>14.2. UN proper shipping name:</b>	DICHLOROMETHANE, mixture
<b>14.3. Transport hazard class(es):</b>	6.1
<b>14.4. Packing group:</b>	III
Hazard label:	6.1



Special Provisions:	-
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-A

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number:</b>	UN 1593
<b>14.2. UN proper shipping name:</b>	DICHLOROMETHANE, mixture
<b>14.3. Transport hazard class(es):</b>	6.1
<b>14.4. Packing group:</b>	III
Hazard label:	6.1



Limited quantity Passenger:	2 L
Passenger LQ:	Y642
Excepted quantity:	E1
IATA-packing instructions - Passenger:	655
IATA-max. quantity - Passenger:	60 L
IATA-packing instructions - Cargo:	663
IATA-max. quantity - Cargo:	220 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

Keep container tightly closed.

**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**
**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 59: dichloromethane, methylene chloride

2010/75/EU (VOC):	No data available
2004/42/EC (VOC):	No data available
Information according to 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

**National regulatory information**

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Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.
Water contaminating class (D):	2 - clearly water contaminating

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 15.

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

H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
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.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H360FD	May damage fertility. May damage the unborn child.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH204	Contains isocyanates. May produce an allergic reaction.

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