

Safety Data Sheet

according to Regulation (EC) No 1907/2006

germanBond Härter AR

Revision date: 05.10.2018

Product code: 63

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

1.1. Product identifier

germanBond Härter AR

Product group: Zulieferprodukt

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:

Highly flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

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 drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

ethyl acetate, Diphenylmethandiisocyanat

Signal word: Danger

Pictograms:



Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
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.

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H336 May cause drowsiness or dizziness.
 H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P340 Remove person to fresh air and keep comfortable for breathing.
 P501 Dispose of contents/container to an appropriate recycling or disposal facility.
 P370+P378 In case of fire: Use sand, extinguishing powder or alcohol-resistant foam to extinguish.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P304+P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Special labelling of certain mixtures

EUH066 Repeated exposure may cause skin dryness or cracking.
 EUH204 Contains isocyanates. May produce an allergic reaction.
 Restricted to professional users.

2.3. Other hazards

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

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]	
141-78-6	ethyl acetate	>= 70 - < 90 %
	205-500-4	607-022-00-5
	01-2119475103-46	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066	
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester	>= 20 - < 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 EUH066	

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

The danger areas must be delimited and identified using relevant warning and safety signs.

After inhalation

Immediately call a doctor. If unconscious place in recovery position and seek medical advice.

After contact with skin

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation)., IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

After contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician in any case!

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After ingestion

Give nothing to eat or drink. IF SWALLOWED: Call a doctor if you feel unwell.

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

Keine bekannt.

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 48 hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

alcohol resistant foam. Carbon dioxide (CO₂). Extinguishing powder

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Retain contaminated washing water and dispose it.

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. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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

See section 8. SECTION 13: Disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Do not breathe vapour/aerosol. Avoid exposure. Obtain special instructions before use. Avoid contact with skin. Avoid contact with eyes. Wear personal protection equipment (refer to section 8). When using do not eat or drink. Take precautionary measures against static discharges. Provide adequate ventilation. Provide adequate ventilation as well as local exhaust at critical locations.

Advice on protection against fire and explosion

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges.

Further information on handling

When using do not eat, drink or smoke. Wash hands before breaks and after work. Notice the directions for use on the label.

7.2. Conditions for safe storage, including any incompatibilities

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Requirements for storage rooms and vessels

Keep away from sources of ignition - No smoking. Keep container tightly closed in a cool, well-ventilated place.

Advice on storage compatibility

Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
141-78-6	Ethyl acetate	200	-		TWA (8 h)	WEL
		400	-		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
141-78-6	ethyl acetate			
	Worker DNEL, acute	inhalation	local	1468 mg/m ³
	Worker DNEL, long-term	inhalation	local	734 mg/m ³
	Consumer DNEL, acute	inhalation	local	734 mg/m ³
	Worker DNEL, long-term	dermal	systemic	63 mg/kg bw/day
	Consumer DNEL, long-term	dermal	systemic	37 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	local	367 mg/m ³
	Consumer DNEL, long-term	oral		4,5 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 ³
	Worker DNEL, acute	inhalation	local	0,1 mg/m ³
	Worker DNEL, long-term	inhalation	systemic	0,05 mg/m ³
	Worker DNEL, long-term	inhalation	local	0,05 mg/m ³
	Consumer DNEL, acute	dermal	systemic	25 mg/kg bw/day
	Consumer DNEL, acute	inhalation	systemic	0,05 mg/m ³
	Consumer DNEL, acute	oral	systemic	20 mg/kg bw/day
	Consumer DNEL, acute	dermal	local	17,2 mg/cm ²
	Consumer DNEL, acute	inhalation	local	0,05 mg/m ³
	Consumer DNEL, long-term	inhalation	systemic	0,025 mg/m ³
	Consumer DNEL, long-term	inhalation	local	0,025 mg/m ³
	Worker DNEL, acute	dermal	local	28,7 mg/cm ²

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PNEC values

CAS No	Substance	Value
Environmental compartment		
141-78-6	ethyl acetate	
Freshwater		0,26 mg/l
Marine water		0,026 mg/l
Freshwater sediment		0,34 mg/kg
Marine sediment		0,034 mg/kg
Soil		0,22 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

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Protective and hygiene measures

When using do not eat, drink, smoke, sniff.

Eye/face protection

Wear eye/face protection.

Hand protection

Wear protective gloves. DIN EN 374: Butyl caoutchouc (butyl rubber), Thickness of the glove material: $\geq 0,5$ mm, Breakthrough time (maximum wearing time): ≥ 60 min

Skin protection

Wear suitable protective clothing.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Combination filtering device (EN 14387) A2-P2, 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	cloudy, yellow, brown	
Odour:	aromatisch	
pH-Value:		No data available

Changes in the physical state

Melting point:	No data available
Initial boiling point and boiling range:	77 °C
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
:	No data available

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Flash point: -3 °C

Sustaining combustion: No data available

Flammability

Solid: No data available

Gas: No data available

Explosive properties

No data available

Lower explosion limits: 2,1

Upper explosion limits: 11,5

Ignition temperature: No data available

Auto-ignition temperature

Solid: No data available

Gas: No data available

Decomposition temperature: No data available

Oxidizing properties

No data available

 Vapour pressure:
(at 20 °C) 100 hPa

 Density (at 20 °C): 0,97 g/cm³

Bulk density: No data available

Water solubility: No data available

Solubility in other solvents

No data available

Partition coefficient: No data available

Viscosity / dynamic: No data available

Viscosity / kinematic: No data available

Flow time: No data available

Vapour density: No data available

Evaporation rate: No data available

Solvent separation test: No data available

Solvent content: ca. 72 %

9.2. Other information

Solid content: ca. 28 %

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Does not decompose when used for intended uses.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixtures with air.

10.4. Conditions to avoid

 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.,
Moisture-sensitive.

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10.5. Incompatible materials

Oxidizing agent, Acids, Alkali (lye)

10.6. Hazardous decomposition products

The product is stable under storage at normal ambient temperatures.

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
141-78-6	ethyl acetate				
	oral	LD50 mg/kg	5600	Rat	
	dermal	LD50 mg/kg	18000	Rabbit	
	inhalative vapour	LC50	58 mg/l	Rat	
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester				
	oral	LD50 mg/kg	> 10000	Rat	OECD 401
	dermal	LD50 mg/kg	>9400	Rabbit	OECD 402
	inhalative vapour	ATE	11 mg/l		
	inhalative aerosol	ATE	1,5 mg/l		

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
141-78-6	ethyl acetate					
	Acute fish toxicity	LC50	230 mg/l	96 h	Pimephales promelas (fathead minnow)	
	Acute crustacea toxicity	EC50	717 mg/l	48 h	Daphnia magna (Big water flea)	
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester					
	Acute fish toxicity	LC50 mg/l	>1000	96 h	Brachydanio rerio (zebra-fish)	OECD 203
	Acute algae toxicity	ErC50 mg/l	>1640	72 h	Desmodesmus subspicatus	OECD 201

12.2. Persistence and degradability

There are no data available on the mixture itself.

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CAS No	Chemical name	Method	Value	d	Source
		Evaluation			
141-78-6	ethyl acetate				
	OECD 301 D		79 %	20	
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester				
	Inherent Biodegradability: Modfield MITI Test (II)		0 %	28	
	Biodegradable: : No				

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

BCF

CAS No	Chemical name	BCF	Species	Source
141-78-6	ethyl acetate	30		
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester	200	Cyprinus carpio (Common Carp)	

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

There are no data available on the mixture itself.

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)

14.1. UN number:	UN 1173
14.2. UN proper shipping name:	ETHYL ACETATE, mixture
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3



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Classification code:	F1
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

14.1. UN number:	UN 1173
14.2. UN proper shipping name:	ETHYL ACETATE, mixture
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3



Classification code:	F1
Limited quantity:	1 L
Excepted quantity:	E2

Marine transport (IMDG)

14.1. UN number:	UN 1173
14.2. UN proper shipping name:	ETHYL ACETATE, mixture
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3



Special Provisions:	-
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	UN 1173
14.2. UN proper shipping name:	ETHYL ACETATE, mixture
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3



Limited quantity Passenger:	1 L
Passenger LQ:	Y341
Excepted quantity:	E2
IATA-packing instructions - Passenger:	353
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	364
IATA-max. quantity - Cargo:	60 L

14.5. Environmental hazards

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ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Reference to other sections: 6 - 8, Highly flammable, Keep away from food, drink and animal feedingstuffs.

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

No data available

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC):	72 % (698,4 g/l)
2004/42/EC (VOC):	72 % (698,4 g/l)
Information according to 2012/18/EU (SEVESO III):	P5c FLAMMABLE LIQUIDS

National regulatory information

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

15.2. Chemical safety assessment

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

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 9,12,15.

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
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.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH066	Repeated exposure may cause skin dryness or cracking.
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.)