

Safety Data Sheet

according to Regulation (EC) No 1907/2006

GermanBond 4kP

Revision date: 24.04.2018

Product code: 25

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

GermanBond 4kP

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

Adhesives, sealants

Uses advised against

Restricted to professional users.

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 categories:

Flammable liquid: Flam. Liq. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Highly flammable liquid and vapour.

Causes serious eye irritation.

May cause drowsiness or dizziness.

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

butanone; ethyl methyl ketone

Signal word: Danger

Pictograms:

Hazard statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Precautionary statements

P403+P235	Store in a well-ventilated place. Keep cool.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P233	Keep container tightly closed.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

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P210 Keep away from heat. No Smoking.

Special labelling of certain mixtures

 EUH066 Repeated exposure may cause skin dryness or cracking.
 Restricted to professional users.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients
3.2. Mixtures
Chemical characterization

Polyurethane dissolved in methyl ethyl ketone

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
78-93-3	butanone; ethyl methyl ketone			ca. 80 %
	201-159-0	606-002-00-3		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			
108-88-3	toluene			< 0,1 %
	203-625-9	601-021-00-3	01-2119471310-51	
	Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1; H225 H361d H315 H336 H373 H304			
28178-42-9	2,6-Diisopropylphenylisocyanat			< 0,002 %
	248-885-4		01-2119943483-35	
	Acute Tox. 1, Acute Tox. 4, Skin Corr. 1B, Resp. Sens. 1, STOT SE 3; H330 H302 H314 H334 H335			

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. Transport affected person in lying position, in case of shortness of breath in half-sitting position. Remove contaminated, saturated clothing immediately. Immediately call a doctor.

After inhalation

In case of respiratory tract irritation, consult a physician. Provide fresh air.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, consult a physician.

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. In case of eye irritation consult an ophthalmologist.

After ingestion

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF SWALLOWED: Immediately call a doctor.

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

No data available

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

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No data available

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**Carbon dioxide (CO₂). Sand Atomized water. Water mist Foam**Unsuitable extinguishing media**

Full water jet

5.2. Special hazards arising from the substance or mixture

Carbon monoxide The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration. Wear personal protection equipment (refer to section 8). Remove all sources of ignition.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil.

6.3. Methods and material for containment and cleaning up

No data available

6.4. Reference to other sections

No data available

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Keep away from sources of ignition - No smoking. Vapours may form explosive mixtures with air.

Advice on protection against fire and explosion

Provide earthing of containers, equipment, pumps and ventilation facilities. If handled uncovered, arrangements with local exhaust ventilation have to be used.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Material, solvent-resistant Only use containers specifically approved for the substance/product. Keep/Store only in original container. Restrict access to stockrooms.

Advice on storage compatibility

Do not store together with: Food and feedingstuffs, Oxidising agent

Further information on storage conditions

Do not store at temperatures above 25°C

7.3. Specific end use(s)

Further information: see technical data sheet.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
78-93-3	Butan-2-one (methyl ethyl ketone)	200	600		TWA (8 h)	WEL
		300	899		STEL (15 min)	WEL
108-88-3	Toluene	50	191		TWA (8 h)	WEL
		100	384		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
78-93-3	Butan-2-one	butan-2-one	70 µmol/L	urine	Post shift

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
78-93-3	butanone; ethyl methyl ketone			
Worker DNEL, long-term		dermal	systemic	1161 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	600 mg/m ³
Consumer DNEL, long-term		inhalation	systemic	106 mg/m ³
Consumer DNEL, long-term		oral	systemic	31 mg/kg bw/day
108-88-3	toluene			
Worker DNEL, acute		inhalation	local	343 mg/m ³
Worker DNEL, acute		inhalation	systemic	384 mg/m ³
Worker DNEL, long-term		inhalation	local	192 mg/m ³
Worker DNEL, long-term		inhalation	systemic	192 mg/m ³
Worker DNEL, long-term		dermal	systemic	384 mg/kg bw/day
Consumer DNEL, acute		inhalation	systemic	226 mg/m ³
Consumer DNEL, long-term		inhalation	systemic	56,5 mg/m ³
Consumer DNEL, long-term		dermal	systemic	226 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	8,13 mg/kg bw/day

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PNEC values

CAS No	Substance	Value
Environmental compartment		
78-93-3	butanone; ethyl methyl ketone	
Freshwater		55,8 mg/l
Marine water		55,8 mg/l
Micro-organisms in sewage treatment plants (STP)		709 mg/l
Soil		22,5 mg/kg
108-88-3	toluene	
Freshwater (intermittent releases)		0,68 mg/l
Micro-organisms in sewage treatment plants (STP)		13,61 mg/l
Soil		2,89 mg/kg

8.2. Exposure controls
Protective and hygiene measures

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

Eye/face protection

goggles DIN EN 166

Hand protection

Suitable material: Butyl caoutchouc (butyl rubber), Unsuitable material: PVC (polyvinyl chloride) CR (polychloroprene, chloroprene rubber), Thickness of the glove material: 0,5 mm Breakthrough time (maximum wearing time): >= 60 min

Skin protection

Wear suitable protective clothing.

Respiratory protection

Respiratory protection necessary at: exceeding exposure limit values, Filtering device (full mask or mouthpiece) with filter: A

Environmental exposure controls

SECTION 7: Handling and storage

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state: Liquid
 Colour: colorless, opaque, cloudy, yellowish
 Odour: ester

Changes in the physical state

Initial boiling point and boiling range: 80 °C
 Flash point: -9 °C
 Lower explosion limits: 1,5 vol. %
 Upper explosion limits: 11,5 vol. %
 Vapour pressure: 101 hPa
 (at 20 °C)
 Density (at 20 °C): 0,85 g/cm³
 Viscosity / dynamic: ca. 2500 mPa·s
 (at 20 °C)
 Solvent content: %

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9.2. Other information

Solid content:

ca. 20 %

SECTION 10: Stability and reactivity
10.1. Reactivity

No data available

10.2. Chemical stability

No data available

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

In case of warming: Danger of explosion

10.5. Incompatible materials

Oxidising agent

10.6. Hazardous decomposition products

 Carbon monoxide Carbon dioxide (CO₂).

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
78-93-3	butanone; ethyl methyl ketone				
	oral	LD50 mg/kg	>2193	Rat	OECD 423
	dermal	LD50 mg/kg	>5000	Rabbit	OECD 402
	inhalative (4 h) vapour	LC50	34 mg/l	Rat	
108-88-3	toluene				
	dermal	LD50 mg/kg	12200	Rabbit	GESTIS
	inhalative (4 h) vapour	LC50	49 mg/l	Rat	GESTIS
28178-42-9	2,6-Diisopropylphenylisocyanat				
	oral	LD50 mg/kg	1414	Rat	
	inhalative vapour	ATE	0,05 mg/l		
	inhalative aerosol	ATE mg/l	0,005		

SECTION 12: Ecological information
12.1. Toxicity

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
78-93-3	butanone; ethyl methyl ketone					
	Acute fish toxicity	LC50 mg/l	2990	96 h	Pimephales promelas (fathead minnow)	OECD 203
	Acute crustacea toxicity	EC50	308 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202
108-88-3	toluene					
	Acute fish toxicity	LC50	13 mg/l	96 h	Carassius auratus	IUCLID
	Acute algae toxicity	ErC50 mg/l	12,5	72 h		GESTIS
28178-42-9	2,6-Diisopropylphenylisocyanat					
	Acute fish toxicity	LC50 mg/l	>100	96 h	Brachydanio rerio (zebra-fish)	

12.2. Persistence and degradability

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
78-93-3	butanone; ethyl methyl ketone			
	OECD 301D/ EEC 92/69/V, C.4-E	98 %	28	
	Readily biodegradable (according to OECD criteria).			

12.3. Bioaccumulative potential
Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
78-93-3	butanone; ethyl methyl ketone	0,3
108-88-3	toluene	2,73

12.4. Mobility in soil

There are no data available on the mixture itself.

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.

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

Packing which cannot be properly cleaned must be disposed of. Handle contaminated packages in the same way as the substance itself. Non-contaminated packages may be recycled.

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

14.1. UN number: UN 1133
14.2. UN proper shipping name: Adhesives
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Classification code: F1
 Limited quantity: 5 L
 Excepted quantity: E1
 Transport category: 3
 Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number: UN 1133
14.2. UN proper shipping name: Adhesives
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Classification code: F1
 Limited quantity: 5 L
 Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 1133
14.2. UN proper shipping name: Adhesives
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Special Provisions: 223, 955
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1133
14.2. UN proper shipping name: Adhesives
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3

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Special Provisions:	A3	
Limited quantity Passenger:	10 L	
Passenger LQ:	Y344	
Excepted quantity:	E1	
IATA-packing instructions - Passenger:		355
IATA-max. quantity - Passenger:		60 L
IATA-packing instructions - Cargo:		366
IATA-max. quantity - Cargo:		220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

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 48: toluene

2010/75/EU (VOC):	80,808 % (686,864 g/l)
2004/42/EC (VOC):	80,808 % (686,864 g/l)
Information according to 2012/18/EU (SEVESO III):	P5c FLAMMABLE LIQUIDS

Additional information

according to Regulation (EC) No. 1907/2006 (REACH), Anhang XVII, Nr. 3, 40, 48

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. Observe employment restrictions for women of child-bearing age.

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

SECTION 16: Other information
Changes

This data sheet contains changes from the previous version in section(s): 16.

3,9,15

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H330	Fatal 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.
H361d	Suspected of damaging the unborn child.

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H373 May cause damage to organs through prolonged or repeated exposure.
EUH066 Repeated exposure may cause skin dryness or cracking.

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.)