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

1.1. Product identifier

GermanBond 2kR Evolution

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

Use of the substance/mixture

Adhesives, sealants

Uses advised against

for professional use only

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
Norwegen: +47 (22) 591 300,

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Carcinogenicity: Carc. 2
Specific target organ toxicity - single exposure: STOT SE 3
Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Causes serious eye irritation.
Causes skin irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
Toxic to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Dichloromethane, tetrachloroethylene, Rosin, colophony

Signal word: Warning

Pictograms:

Hazard statements

H319 Causes serious eye irritation.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H411 Toxic to aquatic life with long lasting effects.
Precautionary statements

P501 Dispose of contents/container to according to local regulations.
P405 Store locked up.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.

Special labelling of certain mixtures

EUH208 Contains Rosin, colophony. May produce an allergic reaction. Restricted to professional users.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

dissolved with fillers synthetic rubber in dichloromethane (methylene chloride) and tetrachlorethylene (perchloroethylene)

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Classification according to Regulation (EC) No. 1272/2008 [CLP]</td>
<td></td>
</tr>
<tr>
<td>75-09-2</td>
<td>dichloromethane, methylene chloride</td>
<td>40 - 80 %</td>
</tr>
<tr>
<td></td>
<td>EC No</td>
<td>802-004-00-3</td>
</tr>
<tr>
<td></td>
<td>Index No</td>
<td>602-013-00-7</td>
</tr>
<tr>
<td></td>
<td>REACH No</td>
<td>01-2119480404-41</td>
</tr>
<tr>
<td></td>
<td>Carc. 2, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H351 H315 H336</td>
<td></td>
</tr>
<tr>
<td>127-18-4</td>
<td>tetrachlorethylene</td>
<td>10 - 50 %</td>
</tr>
<tr>
<td></td>
<td>EC No</td>
<td>602-028-00-4</td>
</tr>
<tr>
<td></td>
<td>Index No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>REACH No</td>
<td>01-2119480404-41</td>
</tr>
<tr>
<td></td>
<td>Carc. 2, Repr. 2, Aquatic Chronic 2; H351 H361d H411</td>
<td></td>
</tr>
<tr>
<td>1314-13-2</td>
<td>zinc oxide</td>
<td>&lt; 1 %</td>
</tr>
<tr>
<td>215-222-5</td>
<td>030-013-00-7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aquatic Acute 1, Aquatic Chronic 1; H400 H410</td>
<td></td>
</tr>
<tr>
<td>8050-09-7</td>
<td>Rosin, colophony</td>
<td>0,1 - 1 %</td>
</tr>
<tr>
<td>232-475-7</td>
<td>650-015-00-7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin Sens. 1; H317</td>
<td></td>
</tr>
</tbody>
</table>

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of inhaling spray mist, consult a physician.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.

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
Call a physician immediately.

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
No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Carbon dioxide (CO2). Atomized water. alcohol resistant foam. Extinguishing powder

Unsuitable extinguishing media
Full water jet

5.2. Special hazards arising from the substance or mixture
Carbon monoxide

5.3. Advice for firefighters
In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Remove persons to safety., Provide adequate ventilation. Use personal protection equipment.

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).

6.4. Reference to other sections
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
When using do not eat, drink, smoke, sniff., Avoid contact with skin, eyes and clothes., Remove contaminated, saturated clothing immediately., Thorough skin-cleansing after handling the product., Apply skin care products after work.

Advice on protection against fire and explosion
Keep away from sources of ignition - No smoking. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

Further information on handling
Avoid exposure - obtain special instructions before use., If handled uncovered, arrangements with local exhaust ventilation have to be used., 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
Suitable container/equipment material: Steel, Glass Unsuitable container/equipment material: Zinc, Aluminium, Provide for retaining containers, eg. floor pan without outflow.

Advice on storage compatibility
Keep away from: Food and feedingstuffs, Oxidising agent,

Further information on storage conditions
Keep container tightly closed. Keep in a cool, well-ventilated place. Avoid: UV-radiation/sunlight, storage
7.3. Specific end use(s)
Adhesives, sealants

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>fibres/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2</td>
<td>Dichloromethane</td>
<td>100</td>
<td>350</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>300</td>
<td>1060</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
<tr>
<td>127-18-4</td>
<td>Tetrachloroethylene</td>
<td>50</td>
<td>345</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
<td>680</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
</tbody>
</table>

Biological Monitoring Guidance Values (EH40)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Parameter</th>
<th>Value</th>
<th>Test material</th>
<th>Sampling time</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2</td>
<td>Dichloromethane</td>
<td>carbon monoxide</td>
<td>30 ppm</td>
<td>end-tidal breath</td>
<td>Post shift</td>
</tr>
</tbody>
</table>

DNEL/DMEL values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Exposure route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2</td>
<td>dichloromethane, methylene chloride</td>
<td>inhalation</td>
<td>systemic</td>
<td>353 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>706 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Worker DNEL, acute</td>
<td>dermal</td>
<td>systemic</td>
<td>12 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>88,3 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumer DNEL, acute</td>
<td>inhalation</td>
<td>systemic</td>
<td>353 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>5,82 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>systemic</td>
<td>0,06 mg/kg bw/day</td>
</tr>
</tbody>
</table>

PNEC values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Environmental compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2</td>
<td>dichloromethane, methylene chloride</td>
<td>Freshwater</td>
<td>0,31 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marine water</td>
<td>0,031 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freshwater sediment</td>
<td>2,57 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marine sediment</td>
<td>0,262 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Micro-organisms in sewage treatment plants (STP)</td>
<td>26 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Soil</td>
<td>0,33 mg/kg</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls
See section 8. Safe handling: see section 7
Protective and hygiene measures
Wash hands before breaks and after work. Do not eat, drink or smoke when using this product.

Eye/face protection
Wear eye/face protection.

Hand protection
Suitable material: PVA (Polyvinyl alcohol), FKM (fluoro rubber), Thickness of the glove material: >= 0,4 mm, Breakthrough time (maximum wearing time): 480 min

Skin protection
Wear suitable protective clothing.

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

Environmental exposure controls
Do not allow to enter into surface water or 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>black</td>
</tr>
<tr>
<td>Odour:</td>
<td>sweetish</td>
</tr>
</tbody>
</table>

Changes in the physical state
Initial boiling point and boiling range: 40 °C
Flash point: not applicable
Lower explosion limits: 13 vol. %
Upper explosion limits: 22 vol. %
Vapour pressure: 475 hPa
(at 20 °C)
Density (at 20 °C): 1.35 g/cm³
Viscosity / dynamic: ca. 2300 mPa·s
(at 20 °C)

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability
The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions
Heating causes rise in pressure with risk of bursting. Reacts with: alkali metals

10.4. Conditions to avoid
Do not store at temperatures above 25°C, Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials
Materials to avoid: Amines, Nitric acid, Oxidising agent, strong, Powdered metals, Alkali (lye)

10.6. Hazardous decomposition products
Carbon dioxide (CO2), Carbon monoxide Chlorine (Cl2), Hydrogen chloride (HCl), Phosgene
SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity
Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2</td>
<td>dichloromethane, methylene chloride</td>
<td>oral</td>
<td>LD50 mg/kg</td>
<td>&gt; 2000</td>
<td>Rat</td>
<td>OECD 401</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50 mg/kg</td>
<td>&gt; 2000</td>
<td>Rat</td>
<td>OECD 402</td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative (4 h) vapour</td>
<td>LC50</td>
<td>86 mg/l</td>
<td>Mouse</td>
<td></td>
</tr>
<tr>
<td>127-18-4</td>
<td>tetrachloroethylene</td>
<td>oral</td>
<td>LD50 mg/kg</td>
<td>2629</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative (4 h) vapour</td>
<td>LC50</td>
<td>27.6 mg/l</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>1314-13-2</td>
<td>zinc oxide</td>
<td>oral</td>
<td>LD50 mg/kg</td>
<td>1500</td>
<td>Rat</td>
<td>OECD 401</td>
</tr>
</tbody>
</table>

Irritation and corrosivity
Causes serious eye irritation.
Causes skin irritation.

Sensitising effects
Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction
Suspected of causing cancer. (dichloromethane, methylene chloride; tetrachloroethylene)
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure
May cause drowsiness or dizziness. (dichloromethane, methylene chloride)

STOT-repeated exposure
Based on available data, the classification criteria are not met.

Aspiration hazard
Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity
12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Method</th>
<th>Value</th>
<th>d Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2</td>
<td>dichloromethane, methylene chloride</td>
<td>Evaluation</td>
<td>68 %</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Readily biodegradable (according to OECD criteria). OECD 301D/ EEC 92/69/V, C.4-E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>127-18-4</td>
<td>tetrachloroethylene</td>
<td>Evaluation</td>
<td>11 %</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Not readily biodegradable (according to OECD criteria)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

**Partition coefficient n-octanol/water**

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2</td>
<td>dichloromethane, methylene chloride</td>
<td>1,25</td>
</tr>
<tr>
<td>127-18-4</td>
<td>tetrachloroethylene</td>
<td>3,4</td>
</tr>
</tbody>
</table>

**BCF**

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>BCF</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2</td>
<td>dichloromethane, methylene chloride</td>
<td>2 - 40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>127-18-4</td>
<td>tetrachloroethylene</td>
<td>49</td>
<td>ECHA</td>
<td></td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

No data available

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

Do not allow to enter into surface water or drains.

**SECTION 13: Disposal considerations**

13.1. Waste treatment methods
Advice on disposal

Disposal: according to local regulations

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. Contaminated packages must be completely emptied and can be re-used following proper cleaning. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 2810
14.2. UN proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (dichloromethane, methylene chloride, tetrachloroethylene)
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1

Classification code: T1
Special Provisions: 274 614
Limited quantity: 5 L
Excepted quantity: E1
Transport category: 2
Hazard No: 60
Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number: UN 2810
14.2. UN proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (dichloromethane, methylene chloride, tetrachloroethylene)
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1

Classification code: T1
Special Provisions: 274 614 802
Limited quantity: 5 L
Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 2810
14.2. UN proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (dichloromethane, methylene chloride, tetrachloroethylene)
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1

Special Provisions: 223, 274
Limited quantity: 5 L
Excepted quantity: E1
EmS: F-A, S-A

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

14.1. UN number: UN 2810
14.2. UN proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S.
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1

Special Provisions: A3 A4 A137
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: yes

Danger releasing substance: tetrachloroethylene

14.6. Special precautions for user
Hazard identification number (Kemler No.): 60 Contains halogenated hydrocarbons.

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): 87 %
2004/42/EC (VOC): 87 %

**Additional information**
Perchloroethylene: VO(EG)Nr.1907/2006, REACH Anhang XVII Nr. 3
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): 3 - highly 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)

| H315  | Causes skin irritation.                      |
| H317  | May cause an allergic skin reaction.        |
| H319  | Causes serious eye irritation.              |
| H336  | May cause drowsiness or dizziness.          |
| H351  | Suspected of causing cancer.                |
| H361d | Suspected of damaging the unborn child.     |
| H400  | Very toxic to aquatic life.                 |
| H410  | Very toxic to aquatic life with long lasting effects. |
| H411  | Toxic to aquatic life with long lasting effects. |
| EUH208| Contains Rosin, colophony. 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.)