SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006
Biresin® Spachtel Part A white

Revision Date 04.10.2016  Version 4.0  Print Date 04.10.2016

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

1.1 Product identifier
Trade name : Biresin® Spachtel Part A white

1.2 Relevant identified uses of the substance or mixture and uses advised against
Product use : Tooling system

1.3 Details of the supplier of the safety data sheet
Company name of supplier : Sika Deutschland GmbH
Kornwestheimer Str. 103-107
D-70439 Stuttgart
Telephone : +49 711 8009 0
E-mail address of person responsible for the SDS : EHS@de.sika.com

1.4 Emergency telephone number
Emergency CONTACT (24-Hour-Number):
GBK GmbH Global Regulatory Compliance +49(0)6132-84463

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Type of product : Mixture

Classification (REGULATION (EC) No 1272/2008)
Flammable liquids, Category 3
Skin irritation, Category 2
Eye irritation, Category 2
Reproductive toxicity, Category 2
Specific target organ toxicity - repeated exposure, Category 1, hearing organs

H226: Flammable liquid and vapour.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H361d: Suspected of damaging the unborn child.
H372: Causes damage to organs through prolonged or repeated exposure.

2.2 Label elements
Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms :

Signal word : Danger

Hazard statements :
H226  Flammable liquid and vapour.
H315  Causes skin irritation.
H319  Causes serious eye irritation.
H361d  Suspected of damaging the unborn child.
H372  Causes damage to organs (hearing organs)
Precautionary statements:

Prevention:
P201 Obtain special instructions before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Hazardous components which must be listed on the label:
- 202-851-5 styrene

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Classification (REGULATION (EC) No 1272/2008)</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>styrene</td>
<td>Flam. Liq.3; H226 Acute Tox.4; H332 Skin Irrit.2; H315 Eye Irrit.2; H319 Repr.2; H361d STOT SE3; H335 STOT RE1; H372 Asp. Tox.1; H304 Aquatic Chronic3; H412</td>
<td>( \geq 10 \cdot &lt; 20 )</td>
</tr>
<tr>
<td>1-ethylpyrrolidin-2-one</td>
<td>Eye Dam.1; H318 Repr.1B; H360D</td>
<td>(&lt; 0,3 )</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.
SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.

If inhaled : Move to fresh air.
Consult a physician after significant exposure.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Do not induce vomiting without medical advice.
Rinse mouth with water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Excessive lachrymation
Erythema
Dermatitis
See Section 11 for more detailed information on health effects
and symptoms.

Risks : irritant effects
Causese skin irritation.
Causes serious eye irritation.
Suspected of damaging the unborn child.
Causes damage to organs through prolonged or repeated
exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam, Carbon dioxide (CO2), Dry chemical

 Unsuitable extinguishing media : Water, High volume water jet
5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: Do not use a solid water stream as it may scatter and spread fire.

Hazardous combustion products: No hazardous combustion products are known.

5.3 Advice for firefighters

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.

Further information: Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment. Remove all sources of ignition. Deny access to unprotected persons.

Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions: Prevent product from entering drains. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Avoid exceeding the given occupational exposure limits (see section 8). Do not get in eyes, on skin, or on clothing. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharge. Open drum carefully as content may be under pressure. Take necessary action.
to avoid static electricity discharge (which might cause ignition of organic vapours). Follow standard hygiene measures when handling chemical products

Advice on protection against fire and explosion: Use explosion-proof equipment. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Take precautionary measures against electrostatic discharges.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Keep container tightly closed in a dry and well-ventilated place. Store in accordance with local regulations.

Other data: No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s): No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

| Components   | CAS-No. | Value | Control parameters * | Basis *
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>styrene</td>
<td>100-42-5</td>
<td>AGW</td>
<td>20 ppm 86 mg/m³</td>
<td>DE TRGS 900</td>
</tr>
</tbody>
</table>

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

Biological occupational exposure limits

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Sampling time</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>styrene</td>
<td>100-42-5</td>
<td>mandelic acid + phenylglyoxylic acid: 600mg/g Creatinine (Urine)</td>
<td>Immediately after exposition or after working hours, In case of long-term exposition: after more than one shift</td>
<td>TRGS 903</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Personal protective equipment
Eye protection : Safety glasses with side-shields conforming to EN166
              Eye wash bottle with pure water

Hand protection : Chemical-resistant, impervious gloves complying with an ap-
                 proved standard must be worn at all times when handling
                 chemical products. Reference number EN 374. Follow manu-
                 facturer specifications.

              Suitable for short time use or protection against splashes:
              Butyl rubber/nitrile rubber gloves (0.4 mm),
              Contaminated gloves should be removed.

              Suitable for permanent exposure:
              Viton gloves (0.4 mm),
              breakthrough time >30 min.

Skin and body protection : Protective clothing (e.g. Safety shoes acc. to EN ISO 20345,
                           long-sleeved working clothing, long trousers). Rubber aprons
                           and protective boots are additionally recommended for mixing
                           and stirring work.

Respiratory protection : Respirator selection must be based on known or anticipated
                         exposure levels, the hazards of the product and the safe work-
                         ing limits of the selected respirator.
                         organic vapor filter (Type A)
                         A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm
                         Ensure adequate ventilation. This can be achieved by local
                         exhaust extraction or by general ventilation. (EN 689 - Meth-
                         ods for determining inhalation exposure). This applies in par-
                         ticular to the mixing / stirring area. In case this is not sufficient
                         to keep the concentrations under the occupational exposure
                         limits then respiration protection measures must be used.

Environmental exposure controls

General advice : Prevent product from entering drains.
                If the product contaminates rivers and lakes or drains inform
                respective authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : paste

Colour : various

Odour : characteristic
Odour Threshold : No data available
Flash point : ca. 31 °C
Autoignition temperature : ca. 480 °C
Decomposition temperature : No data available
Lower explosion limit : ca.1 % (V)
Upper explosion limit : ca. 8,9 % (V)
Flammability : No data available
Explosive properties : No data available
Oxidizing properties : No data available
pH : Not applicable
Melting point/range / Freezing point : No data available
Boiling point/boiling range : ca. 145 °C
Vapour pressure : ca. 6 hPa
Density : ca. 1,7 g/cm³
Water solubility : Insoluble
Partition coefficient: n-octanol/water : No data available
Viscosity, dynamic : Not determined
Viscosity, kinematic : > 20,5 mm²/s
Relative vapour density : No data available
Evaporation rate : No data available

9.2 Other information
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No dangerous reaction known under conditions of normal use.

10.2 Chemical stability
The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions: Stable under recommended storage conditions.
Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid: Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid: No data available

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Not classified based on available information.

Components:

<table>
<thead>
<tr>
<th>1-ethylpyrrolidin-2-one:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>LD50 Oral (Rat): &gt; 3.200 mg/kg</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>LC50 (Rat): 5.1 mg/l</td>
</tr>
<tr>
<td></td>
<td>Exposure time: 4 h</td>
</tr>
<tr>
<td></td>
<td>Test atmosphere: dust/mist</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>LD50 Dermal (Rat): &gt; 2.000 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/eye irritation
Causes serious eye irritation.

Respiratory or skin sensitisation
Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Not classified based on available information.

Reproductive toxicity
Suspected of damaging the unborn child.

STOT - single exposure
Not classified based on available information.
STOT - repeated exposure
Causes damage to organs (hearing organs) through prolonged or repeated exposure.

Aspiration toxicity
Not classified based on available information.

SECTION 12: Ecological information

12.1 Toxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment

Product:
Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product:
Additional ecological information : There is no data available for this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : In accordance with the EWC Waste Regulation the classification of waste is to be assigned to the jurisdiction of the origin of waste. Therefore, it is not possible to assign a particular waste identification number. Completely emptied packagings may be given for recycling. Empty packaging may still contain hazardous residues. Empty packaging should be removed by a licensed waste contractor. Sika has agreed disposal contracts for all packaging which is brought into circulation in Germany. For further details see www.sika.de
SECTION 14: Transport information

ADR
14.1 UN number : 1993
14.2 Description of the goods : FLAMMABLE LIQUID, N.O.S.
                      (styrene)
14.3 Class : 3
14.4 Packing group : III
Classification Code : F1
Labels : 3
Tunnel restriction code : (D/E)
14.5 Environmentally hazardous : no

IATA
14.1 UN number : 1993
14.2 Description of the goods : Flammable liquid, n.o.s.
                      (styrene)
14.3 Class : 3
14.4 Packing group : III
Labels : 3
14.5 Environmentally hazardous : no

IMDG
14.1 UN number : 1993
14.2 Description of the goods : FLAMMABLE LIQUID, N.O.S.
                      (styrene)
14.3 Class : 3
14.4 Packing group : III
Labels : 3
EmS Number 1 : F-E
EmS Number 2 : S-E
14.5 Marine pollutant : no

14.6 Special precautions for user
No data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15: Regulatory information

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

Prohibition/Restriction
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Banned and/or restricted (1-ethylpyrrolidin-2-one)
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59): None of the components are listed (=> 0.1 %).

REACH - List of substances subject to authorisation (Annex XIV): Not applicable

REACH Information: All substances contained in our Products are
- preregistered or registered by our upstream suppliers, and/or
- preregistered or registered by us, and/or
- excluded from the regulation, and/or
- exempted from the registration.


Quantity

<table>
<thead>
<tr>
<th></th>
<th>Quantity 1</th>
<th>Quantity 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>P5c</td>
<td>5.000 t</td>
<td>50.000 t</td>
</tr>
</tbody>
</table>

Water contaminating class (Germany):
- WGK 2 significantly water endangering

VOC-CH (VOCV):
- < 0.01 %
- no VOC duties

VOC-EU (solvent):
- 0.15 %

15.2 Chemical safety assessment

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Full text of H-Statements

- H226 Flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H360D May damage the unborn child.
- H361d Suspected of damaging the unborn child.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H412 Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

- Acute Tox. Acute toxicity
- Aquatic Chronic Chronic aquatic toxicity
- Asp. Tox. Aspiration hazard
- Eye Dam. Serious eye damage
- Eye Irit. Eye irritation
The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

Changes as compared to previous version!