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

**Name of product** RIEGLER LOCK AN 301-43 / 50 ml / 250 ml  
Code-Nr. ID-Nr. 114545/-46

**1.2. Relevant identified uses of the substance or mixture and uses advised against  
Recommended intended purpose(s)**

1-Component Adhesives and Sealants, anaerobic curing

**1.3. Details of the supplier of the safety data sheet****Manufacturer/distributor**

RIEGLER & Co. KG  
Schützenstr. 27, D-72574 Bad Urach  
Phone : +49 (0) 7125/9497-0, Fax : +49 (0) 7125/9497-97  
E-Mail : zedok@riegler.de  
Internet : www.riegler.de

**Advice**

Abteilung eDocumentation  
Phone : +49 (0) 7125/9497-0  
Fax : +49 (0) 7125/9497-97  
E-mail (competent person):  
zedok@riegler.de

**1.4. Emergency telephone number****Emergency advice**

Giftnotrufzentrale Bonn  
Phone : +49(0)228-19 240

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**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]**

| Hazard classes and Hazard categories | Hazard Statements | Classification procedure |
|--------------------------------------|-------------------|--------------------------|
|--------------------------------------|-------------------|--------------------------|

|                   |      |  |
|-------------------|------|--|
| Aquatic Chronic 3 | H412 |  |
|-------------------|------|--|

**Hazard Statements**

H412 Harmful to aquatic life with long lasting effects.

**2.2. Label elements****Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]****Hazard Statements**

H412 Harmful to aquatic life with long lasting effects.

**Precautionary Statements**

P102 Keep out of reach of children.

P273 Avoid release to the environment.

P501 Dispose of contents/container to hazardous or special waste collection point.

**2.3. Other hazards****Results of PBT and vPvB assessment**

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

**! SECTION 3: Composition/ information on ingredients****3.1. Substances**

not applicable

**3.2. Mixtures****Description**

Anaerobic adhesive / sealant

**! Hazardous ingredients**

| CAS No   | EC No     | Name                                     | [% weight] | Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]   |
|----------|-----------|--|------------|--|
| 80-15-9  | 201-254-7 | alpha,alpha-dimethylbenzyl hydroperoxide | 0,25 - 1   | Org. Perox. E, H242 / Acute Tox. 3, H331 / Acute Tox. 4, H312 / Acute Tox. 4, H302 / STOT RE 2, H373 / Skin Corr. 1B, H314 / Aquatic Chronic 2, H411 |
| 128-37-0 | 204-881-4 | 2,6-Di-tert.-butyl-p-cresol              | 0,25 - 1   | Aqu. Acute 1, H400 M=1 / Aqu. Chronic 1, H410 M=1  |
| 114-83-0 | 204-055-3 | 2-Phenylacetohydrazid                    | 0,1 < 1    | Acute Tox. 3, H301   |

**REACH**

| CAS No   | Name                                     | REACH registration number   |
|----------|--|-----------------------------|
| 80-15-9  | alpha,alpha-dimethylbenzyl hydroperoxide | 01-2119475796-19            |
| 128-37-0 | 2,6-Di-tert.-butyl-p-cresol              | 01-2119555270-46            |
| 114-83-0 | 2-Phenylacetohydrazid                    | not subject to registration |

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

Remove contaminated soaked clothing immediately.

**In case of inhalation**

Ensure of fresh air.

In the event of symptoms refer for medical treatment.

**In case of skin contact**

In case of contact with skin wash off immediately with soap and water.

**In case of eye contact**

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

**In case of ingestion**

Seek medical advice.

Do not induce vomiting.

Rinse out mouth and give plenty of water to drink.

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

No information available.

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

No information available.

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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Fire-extinguishing activities according to surrounding.

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

Risk of formation of toxic pyrolyse products.

In case of fire formation of dangerous gases possible.

Nitrogen oxides (NO<sub>x</sub>)

Carbon monoxide (CO)

Carbon dioxide (CO<sub>2</sub>)

### 5.3. Advice for firefighters

#### Special protective equipment for fire-fighters

Fire-fighting operations, rescue and clearing work under effect of combustion and smoulder gases just may be done with breathing apparatus.

Do not inhale explosion and/or combustion gases.

#### Additional information

Cool endangered containers with water spray jet.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

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## SECTION 6: Accidental release measures

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

#### For non-emergency personnel

Ensure adequate ventilation.

Use personal protective clothing.

Keep away sources of ignition.

Use breathing apparatus if exposed to vapours/dust/aerosol.

### 6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Do not discharge into the subsoil/soil.

### 6.3. Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).

Ventilate area concerned

After taking up the material dispose according to regulation.

### 6.4. Reference to other sections

Safe handling: see section 7

Disposal: see section 13

Personal protection equipment: see section 8

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## ! SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

No special measures necessary if used correctly.

#### General protective measures

Do not inhale vapours.

Avoid contact with eyes and skin

**Hygiene measures**

At work do not eat, drink and smoke.  
 Keep separated from food and feed.  
 Wash hands before breaks and after work.

**Advice on protection against fire and explosion**

Pay attention to general rules of internal fire prevention.

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

Keep only in original container.

**Advice on storage compatibility**

Do not store together with animal feedstuffs.  
 Do not store together with food.  
 Do not store together with metals.

**Further information on storage conditions**

Store closed container at cool and aired place.  
 Protect from heat and direct solar radiation.  
 Store in a dry place.

**7.3. Specific end use(s)**
**Recommendation(s) for intended use**

See section 1.2

**! SECTION 8: Exposure controls/personal protection**
**8.1. Control parameters**
**Ingredients with occupational exposure limits to be monitored**

| CAS No   | Name                       | Code       | [mg/m <sup>3</sup> ] | [ppm] | Remark    |
|----------|----------------------------|------------|----------------------|-------|-----------|
| 98-82-8  | Cumene                     | 8 hours    | 125                  | 25    | EH40/2005 |
|          |                            | Short-term | 250                  | 50    |           |
| 128-37-0 | 2,6-Di-tert-butyl-p-cresol | 8 hours    | 10                   |       | EH40/2005 |

**DNEL-/PNEC-values**
**DNEL worker**

| CAS No   | Substance name              | Value               | Code                                    | Remark |
|----------|-----------------------------|---------------------|---|--------|
| 128-37-0 | 2,6-Di-tert.-butyl-p-cresol | 0,5 mg/kg<br>bw/day | DNEL long-term dermal (systemic)        |        |
|          |                             | 3,5 mg/kg<br>bw/day | DNEL long-term inhalative<br>(systemic) |        |

**PNEC**

| CAS No   | Substance name              | Value       | Code                       | Remark |
|----------|-----------------------------|-------------|----------------------------|--------|
| 128-37-0 | 2,6-Di-tert.-butyl-p-cresol | 0,0199 µg/l | PNEC aquatic, marine water |        |
|          |                             | 0,199 µg/l  | PNEC aquatic, freshwater   |        |
|          |                             | 47,69 µg/l  | PNEC soil, freshwater      |        |
|          |                             | 99,6 µg/l   | PNEC sediment, freshwater  |        |

**! Additional advice**

The statutory local and national regulations have to be observed.

**8.2. Exposure controls**
**! Respiratory protection**

In case of insufficient ventilation or long-term effect use breathing apparatus.

**Hand protection**

In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374.

Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: Nitrile rubber; 0,4mm; 480min;60min.

**Eye protection**

tightly fitting goggles

**Other protection measures**

protective clothing

**Appropriate engineering controls**

Sufficient ventilation and exhaustion.

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

liquid

**Colour**

blue

**Odour**

mild

**Odour threshold**

not determined

**Important health, safety and environmental information**

|                                  | Value                  | Temperature | at | Method | Remark                            |
|----------------------------------|------------------------|-------------|----|--------|-----------------------------------|
| <b>pH value</b>                  | not determined         |             |    |        |                                   |
| <b>boiling point</b>             | not determined         |             |    |        |                                   |
| <b>melting point</b>             | not determined         |             |    |        |                                   |
| <b>Flash point</b>               | > 100 °C               |             |    |        |                                   |
| <b>Vapourisation rate</b>        | not determined         |             |    |        |                                   |
| <b>Flammable (solid)</b>         | not applicable         |             |    |        |                                   |
| <b>Flammability (gas)</b>        | not applicable         |             |    |        |                                   |
| <b>Ignition temperature</b>      | not determined         |             |    |        |                                   |
| <b>Self ignition temperature</b> |                        |             |    |        | The product is not self-igniting. |
| <b>Lower explosion limit</b>     | not determined         |             |    |        |                                   |
| <b>Upper explosion limit</b>     | not determined         |             |    |        |                                   |
| <b>Vapour pressure</b>           | not determined         |             |    |        |                                   |
| <b>Relative density</b>          | 1,12 g/cm <sup>3</sup> | 25 °C       |    |        |                                   |

|   | Value                     | Temperature | at | Method               | Remark                  |
|---|---------------------------|-------------|----|----------------------|-------------------------|
| <b>Vapour density</b>                                   | not determined            |             |    |                      |                         |
| <b>Solubility in water</b>                              |                           | 20 °C       |    |                      | No or low immiscibility |
| <b>Solubility/other</b>                                 | not determined            |             |    |                      |                         |
| <b>Partition coefficient n-octanol/water (log P OW)</b> | not determined            |             |    |                      |                         |
| <b>Decomposition temperature</b>                        | not determined            |             |    |                      |                         |
| <b>Viscosity dynamic</b>                                | 1500 - 3000 mPa*s         | 25 °C       |    | Brookf-Visk.RVT Sp.3 |                         |
| <b>Viscosity kinematic</b>                              | not determined            |             |    |                      |                         |
| <b>Oxidising properties</b>                             | No information available. |             |    |                      |                         |
| <b>Explosive properties</b>                             | not applicable            |             |    |                      |                         |
| <b>9.2. Other information</b>                           | No information available. |             |    |                      |                         |

## ! SECTION 10: Stability and reactivity

### 10.1. Reactivity

No information available.

### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

Reactions with Metal-Salts.

### 10.4. Conditions to avoid

Keep away from heat.

### 10.5. Incompatible materials

#### Substances to avoid

Metal, Metal-Salts

### 10.6. Hazardous decomposition products

Gases/vapours, toxic

Carbon monoxide and carbon dioxide.

Nitrous oxides (NOx)

### Thermal decomposition

Remark No decomposition if used as directed.

## ! SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity/Irritation/Sensitization

|                              | Value/Validation                             | Species | Method | Remark        |
|------------------------------|--|---------|--------|---------------|
| <b>LD50 acute oral</b>       | 270 mg/kg                                    | rat     |        | CAS: 114-83-0 |
| <b>LD50 acute dermal</b>     | 500 mg/kg                                    | rat     |        | CAS: 80-15-9  |
| <b>LC50 acute inhalation</b> | 24,7 mg/l (4 h)                              | mouse   |        | CAS: 98-82-8  |
| <b>Skin irritation</b>       | low irritant effect - not necessary to label |         |        |               |
| <b>Eye irritation</b>        | low irritant - no labeling duty              |         |        |               |
| <b>Skin sensitization</b>    | non-sensitizing                              |         |        |               |

#### Subacute Toxicity - Carcinogenicity

|                              | Value | Species | Method | Validation  |
|------------------------------|-------|---------|--------|---|
| <b>Mutagenicity</b>          |       |         |        | No experimental information on genotoxicity in vitro available.                   |
| <b>Reproduction-Toxicity</b> |       |         |        | No indications of toxic effects were observed in reproduction studies in animals. |
| <b>Carcinogenicity</b>       |       |         |        | No indications of carcinogenic effects are available from long-term trials.       |

#### Experiences made from practice

Often and long skin contact may cause degreasing and desiccation of the skin which may cause skin irritation. Frequent persistent contact with the skin may cause skin irritation.

#### Additional information

The product is to be handled with the caution usual with chemicals. Other hazardous properties may not be excluded.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicological effects

|              | Value                | Species     | Method | Validation   |
|--------------|----------------------|-------------|--------|--------------|
| <b>Algae</b> | EC50 2,6 mg/l (72 h) | Green algae |        | CAS: 98-82-8 |

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

No information available.

**12.4. Mobility in soil**

No information 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**

**General regulation**

Harmful to aquatic life with long lasting effects.

Even in the event of low quantities penetration into the underground drinking water is contaminated.

Product is not allowed to be discharged into the ground water or aquatic environment.

Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Waste code No.**

08 04 10

**Name of waste**

waste adhesives and sealants other than those mentioned in 08 04 09

**Recommendations for the product**

Remove in accordance with local official regulations.

**Recommendations for packaging**

Dispose of according to the local waste regulations.

**General information**

Assignment to a waste code number / waste identification according to the EWC is to be carried out on a sector or process-specific basis.

**SECTION 14: Transport information**

|  | ADR/RID | IMDG | IATA-DGR |
|--|---------|------|----------|
| <b>14.1. UN number</b>   | -       | -    | -        |
| <b>14.2. UN proper shipping name</b>   | -       | -    | -        |
| <b>14.3. Transport hazard class(es)</b>  | -       | -    | -        |
| <b>14.4. Packing group</b>   | -       | -    | -        |
| <b>14.5. Environmental hazards</b>   | -       | -    | -        |
| <b>14.6. Special precautions for user</b>  |         |      |          |
| No information available.  |         |      |          |
| <b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>      |         |      |          |
| not applicable   |         |      |          |
| <b>Transport/further information</b>   |         |      |          |
| No dangerous goods as defined by the transport regulations - ADR/RID, IMDG, ICAO/IATA-DGR. |         |      |          |



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**! SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****VOC standard**

VOC content 0 %

**15.2. Chemical Safety Assessment**

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

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**SECTION 16: Other information****Recommended uses and restrictions**

National and local regulations concerning chemicals shall be observed.

**Further information**

Each user is responsible for the implementation of the national special regulations.

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Please observe the following disclaimer! --- Our safety data sheets have been compiled according to effective EU-directives, WITHOUT taking into account the special national directives concerning the handling of hazardous substances.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 9.1

|      |  |
|------|--|
| H242 | Heating may cause a fire.  |
| H301 | Toxic if swallowed.  |
| H302 | Harmful if swallowed.  |
| H312 | Harmful in contact with skin.  |
| H314 | Causes severe skin burns and eye damage.   |
| H331 | Toxic if inhaled.  |
| H373 | May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard). |
| 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.   |