<table>
<thead>
<tr>
<th>Product code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1675-210226</td>
<td><strong>ergo 1675</strong></td>
</tr>
<tr>
<td></td>
<td>Components:</td>
</tr>
<tr>
<td>1673-210625</td>
<td><strong>ergo 1673 - Component A ergo 1675</strong></td>
</tr>
<tr>
<td>1664-200407</td>
<td><strong>ergo 1664 - Component B ergo 1665, ergo 1670, ergo 1675, ergo 1680</strong></td>
</tr>
</tbody>
</table>
SECTION 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 Product identifier
  - Trade name: ergo 1673 - Component A ergo 1675

- 1.2 Relevant identified uses of the substance or mixture and uses advised against
  No further relevant information available.

- 1.3 Details of the supplier of the safety data sheet
  - Manufacturer/Supplier:
    Kisling AG
    Motorenstrasse 102
    CH-8620 Wetzikon
    Tel: +41- 58-272 0 272
  - Only representative (REACH) and importer (CLP):
    Kisling Deutschland GmbH
    Salzstraße 15
    D-74676 Niedernhall
    Tel +49 8171 99982 30
  - Further information obtainable from: Product safety department
  - Department issuing MSDS: ergo@kisling.com
  - 1.4 Emergency telephone number:
    +49-700-24 112 112 (KAR)
    +1 872 5888271

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
  - Classification according to Regulation (EC) No 1272/2008
    Skin Irrit. 2 H315 Causes skin irritation.
    Eye Dam. 1 H318 Causes serious eye damage.
    Skin Sens. 1 H317 May cause an allergic skin reaction.
    Repr. 2 H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
    STOT SE 3 H335 May cause respiratory irritation.
    Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

- 2.2 Label elements
  - Labelling according to Regulation (EC) No 1272/2008
    The product is classified and labelled according to the CLP regulation.

- Hazard pictograms
  ![GHS05](image)
  ![GHS07](image)
  ![GHS08](image)
  ![GHS09](image)

- Signal word Danger

- Hazard-determining components of labelling:
  Glycerin formal methacrylate
  methacrylic acid
  Propylidynetrimethanol, ethoxylated, esters with acrylic acid
  2-Propenoic acid, 2-methyl-, 2-hydroxyethylster, phosphate

(Contd. on page 2)
Safety data sheet according to 1907/2006/EC, Article 31

Trade name: ergo 1673 - Component A ergo 1675

(Contd. of page 1)

- **Hazard statements**
  - H315  Causes skin irritation.
  - H318  Causes serious eye damage.
  - H317  May cause an allergic skin reaction.
  - H361d  Suspected of damaging fertility. Suspected of damaging the unborn child.
  - H335  May cause respiratory irritation.
  - H411  Toxic to aquatic life with long lasting effects.

- **Precautionary statements**
  - P261  Avoid breathing vapours.
  - P273  Avoid release to the environment.
  - P280  Wear protective gloves / eye protection.
  - P304+P351+P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P310  Immediately call a POISON CENTER/doctor.

- **Labelling of packages where the contents do not exceed 125 ml**

- **Hazard pictograms**

  GHS05  GHS07  GHS08  GHS09

- **Signal word** Danger

- **Hazard-determining components of labelling:**
  - Glycerin formal methacrylate
  - methacrylic acid
  - Propylidynetrimethanol, ethoxylated, esters with acrylic acid
  - 2-Propenoic acid, 2-methyl-, 2-hydroxyethylester, phosphate

- **Hazard statements**
  - H318  Causes serious eye damage.
  - H317  May cause an allergic skin reaction.
  - H361d  Suspected of damaging fertility. Suspected of damaging the unborn child.

- **Precautionary statements**
  - P261  Avoid breathing vapours.
  - P280  Wear protective gloves / eye protection.
  - P305+P351+P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P310  Immediately call a POISON CENTER/doctor.

- **2.3 Other hazards**
  - Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

- **SECTION 3: Composition/information on ingredients**

- **3.2 Mixtures**
  - **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

<table>
<thead>
<tr>
<th>EC number: 945-527-5</th>
<th>Glycerin formal methacrylate</th>
<th>&gt; 30 - ≤ 50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 79-41-4</td>
<td>methacrylic acid</td>
<td>≥ 3 - &lt; 5%</td>
</tr>
<tr>
<td>EINECS: 201-204-4</td>
<td>Acute Tox. 3, H351; Skin Corr. 1A, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H332; STOT SE 3, H335</td>
<td></td>
</tr>
<tr>
<td>Index number: 607-088-00-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reg.nr.: 01-2119463884-26-xxxx</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 3)
SECTION 4: First aid measures

4.1 Description of first aid measures

- General information: Immediately remove any clothing soiled by the product.

- After inhalation:
  Supply fresh air and be sure call for a doctor.
  In case of unconsciousness place patient stably in side position for transportation.

- After skin contact:
  After contact with skin, wash immediately with plenty of soap and water.
  If skin irritation continues, consult a doctor.

- After eye contact:
  In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  Rinse cautiously with water for several minutes.
  Remove contact lenses, if present and easy to do. Continue rinsing.

- After swallowing:
  Rinse out mouth and then drink plenty of water.
  If swallowed, do not induce vomiting: seek medical advice and show this container or label.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.
- 5.3 Advice for firefighters
- Protective equipment:
  Wear self-contained respiratory protective device.
  Do not inhale explosion gases or combustion gases.
- Additional information
  Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures
- 6.1 Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
  Ensure adequate ventilation
  Use respiratory protective device against the effects of fumes/dust/aerosol.
- 6.2 Environmental precautions:
  Inform respective authorities in case of seepage into water course or sewage system.
  Do not allow product to reach sewage system or any water course.
- 6.3 Methods and material for containment and cleaning up:
  Ensure adequate ventilation.
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose of the material collected according to regulations.
- 6.4 Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 10 for information on "stability and reactivity".
  See Section 13 for disposal information.

SECTION 7: Handling and storage
- 7.1 Precautions for safe handling
  No special precautions are necessary if used correctly.
- Information about fire - and explosion protection:
  No special measures required.
- 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
  Requirements to be met by storerooms and receptacles: No special requirements.
  Information about storage in one common storage facility: Not required.
  Further information about storage conditions: Keep receptacle tightly sealed.
- Storage class (TRGS 510, Storage of hazardous substances in non-stationary containers): 10-13
- 7.3 Specific end use(s)
  No further relevant information available.

SECTION 8: Exposure controls/personal protection
- 8.1 Control parameters
- Additional information about design of technical facilities: No further data; see item 7.
- Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>79-41-4 methacrylic acid</th>
<th>70-62-6 methyl methacrylate</th>
<th>102-82-9 tributylamine</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGW (Germany)</td>
<td>Long-term value: 180 mg/m³, 50 ppm</td>
<td>Long-term value: 100 ppm</td>
</tr>
<tr>
<td></td>
<td>2 (I); DFG, Y</td>
<td>Long-term value: 50 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AGW (Germany)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 210 mg/m³, 50 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2(I); DFG, EU, Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MAK (Germany)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>als Dampf und Aerosol; vgl. Abschn. IIb</td>
</tr>
</tbody>
</table>
Trade name: ergo 1673 - Component A ergo 1675

### DNELs

<table>
<thead>
<tr>
<th>Substance</th>
<th>Dermal Longterm System</th>
<th>Inhalative Longterm System</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-62-6 methyl methacrylate</td>
<td>13.67 mg/kg bw/day (Worker)</td>
<td>208 mg/m³ (Worker)</td>
</tr>
</tbody>
</table>

### PNECs

<table>
<thead>
<tr>
<th>Substance</th>
<th>Freshwater</th>
<th>Freshwater sed</th>
<th>Marinewater</th>
<th>Soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-62-6 methyl methacrylate</td>
<td>0.94 mg/l</td>
<td>5.74 mg/kg</td>
<td>0.94 mg/l</td>
<td>1.47 mg/kg</td>
</tr>
</tbody>
</table>

#### Additional information
The lists valid during the making were used as basis.

### 8.2 Exposure controls

#### Personal protective equipment:

- **General protective and hygienic measures:**
  The usual precautionary measures are to be adhered to when handling chemicals.
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing
  Wash hands before breaks and at the end of work.
  Avoid contact with the eyes and skin.

- **Respiratory protection:**
  Use suitable respiratory protective device in case of insufficient ventilation.
  Filter ABEK

- **Protection of hands:**
  Protective gloves (EN 374)
  Check protective gloves prior to each use for their proper condition.
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**
  The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**
  Tightly sealed goggles

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

- **Appearance:**
  - Form: Fluid
  - Colour: White
  - Odour: Characteristic
  - Odour threshold: Not determined.

- **pH-value:**
  Not determined.

- **Change in condition**
  - Melting point/freezing point: Undetermined.
Trade name: ergo 1673 - Component A ergo 1675 (Contd. of page 5)

- **Initial boiling point and boiling range:** Undetermined.
  - Flash point: >60 °C
  - Flammability (solid, gas): Not applicable.
  - Decomposition temperature: Not determined.
  - Auto-ignition temperature: Product is not self-igniting.
  - Explosive properties: Product does not present an explosion hazard.
  - Explosion limits:
    - Lower: Not determined.
    - Upper: Not determined.
  - Oxidising properties: Not determined.
  - Vapour pressure: Not determined.
  - Density: Not determined.
  - Relative density: Not determined.
  - Vapour density: Not determined.
  - Evaporation rate: Not determined.
  - Solubility in / Miscibility with water: Not miscible or difficult to mix.
  - Partition coefficient: n-octanol/water: Not determined.
  - Viscosity:
    - Dynamic: Not determined.
    - Kinematic: Not determined.

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
  - Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.
  - **10.3 Possibility of hazardous reactions**
    - No dangerous reactions if used and stored according to specifications.
  - **10.4 Conditions to avoid** No further relevant information available.
  - **10.5 Incompatible materials:** No further relevant information available.
  - **10.6 Hazardous decomposition products:** No dangerous products of decomposition if used and stored according to specifications.

**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>LD/LC50 values relevant for classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>79-41-4 methacrylic acid</strong></td>
</tr>
<tr>
<td>Oral LD50</td>
</tr>
<tr>
<td>Dermal LD50</td>
</tr>
<tr>
<td>Inhalative LC50/4 h</td>
</tr>
<tr>
<td>N,N-Bis-(2-hydroxyethyl)-para-toluidine, ethoxylated</td>
</tr>
<tr>
<td>Oral LD50</td>
</tr>
</tbody>
</table>

(Contd. on page 7)
Dermal LD50 > 2,000 mg/kg

80-62-6 methyl methacrylate
- Oral LD50 7,872 mg/kg (Rat, male/female)
- Dermal LD50 > 5,000 mg/kg (Rabbit)
- Inhalative LC50/4 h 78,000 mg/l (Rat, male/female)

91-66-7 N,N-diethylaniline
- Oral LD50 606 mg/kg (Rat, male/female)
- Dermal LD50 > 5,000 mg/kg (Rat, male/female)
- Inhalative LC50/4 h => LC50/4 1.92 mg/l (Rat, male/female)

102-82-9 tributylamine
- Inhalative LC50/4 h 0.5 mg/l (Rat, male/female)

- Primary irritant effect:
- Skin corrosion/irritation
  Causes skin irritation.
- Serious eye damage/irritation
  Causes serious eye damage.
- Respiratory or skin sensitisation
  May cause an allergic skin reaction.
- Additional toxicological information:
  No experimentally found toxicological data are available for this preparation.
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  Repr. 2
  - Germ cell mutagenicity Based on available data, the classification criteria are not met.
  - Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity
  Suspected of damaging fertility. Suspected of damaging the unborn child.
- STOT-single exposure
  May cause respiratory irritation.
- 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
  - Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Ecotoxicological effects:
- Remark: Harmful to fish
- Additional ecological information:
- General notes:
  Harmful to aquatic organisms
  Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
  Danger to drinking water if even small quantities leak into the ground.
  Do not allow product to reach ground water, water course or undiluted sewage system.
- 12.5 Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.
SECTION 13: Disposal considerations

13.1 Waste treatment methods
- Recommendation: Disposal must be made according to official regulations.

- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

- 14.1 UN-Number: UN3082

- 14.2 UN proper shipping name
  - ADR: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N-DIETHYLANILINE, dodecane-1-thiol)
  - IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N-DIETHYLANILINE, dodecane-1-thiol), MARINE POLLUTANT
  - IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N-DIETHYLANILINE, dodecane-1-thiol)

- 14.3 Transport hazard class(es)
  - ADR
    - Class: 9 (M6) Miscellaneous dangerous substances and articles.
    - Label:

- IMDG, IATA
  - Class: 9 Miscellaneous dangerous substances and articles.
  - Label:

- 14.4 Packing group
  - ADR, IMDG, IATA: III

- 14.5 Environmental hazards:
  - Product contains environmentally hazardous substances: dodecane-1-thiol
  - Marine pollutant: Symbol (fish and tree)
  - Special marking (ADR): Symbol (fish and tree)
  - Special marking (IATA): Symbol (fish and tree)

- 14.6 Special precautions for user
  - Warning: Miscellaneous dangerous substances and articles.
  - Hazard identification number (Kemler code): 90
  - EMS Number: F-A,S-F
  - Stowage Category: A
Trade name: ergo 1673 - Component A ergo 1675

| - 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| - Transport/Additional information: | |
| ADR | SV375 |
| IMDG-Code | 2.10.2.7 |
| IATA-DGR | A197 (375) |

- ADR
- Limited quantities (LQ) | 5L |
- Excepted quantities (EQ) | Code: E1 |
- Maximum net quantity per inner packaging: 30 ml |
- Maximum net quantity per outer packaging: 1000 ml |
- Transport category | 3 |
- Tunnel restriction code | (-) |
- Remarks: | SV375: These substances are not subject to the other provisions of ADR / RID if they are transported in individual or composite packaging with a net quantity of no more than 5 l of liquid substances or a net mass of no more than 5 kg of solids per individual or inner packaging, provided that the packaging is used correspond to the general provisions of subsections 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. |

- IMDG
- Limited quantities (LQ) | 5L |
- Excepted quantities (EQ) | Code: E1 |
- Maximum net quantity per inner packaging: 30 ml |
- Maximum net quantity per outer packaging: 1000 ml |
- Remarks: | 2.10.2.7: Marine pollutants in individual packaging or composite packaging with a net quantity per individual or inner packaging of no more than 5 L for liquids or a net mass per individual or inner packaging of no more than 5 kg for solids are not subject to any other provisions of this Code applicable to marine pollutants, provided that the packaging complies with the general Meet the requirements in 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. In the case of marine pollutants that also meet the criteria for inclusion in another class, all provisions of this Code that apply to any further hazards continue to apply. |

- IATA
- Remarks: | A 197 (375): These substances when transported in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass of 5 kg or less for solids, are not subject to any other provisions of these Regulations provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8. |

- UN "Model Regulation": | UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N-DIETHYLAMINILINE, DODECANE-1-SHOL), 9, III |

(Contd. of page 8)
SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Chemical safety assessment
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
  - DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II
    None of the ingredients is listed.
- REGULATION (EU) 2019/1148
  - Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))
    None of the ingredients is listed.
  - Annex II - REPORTABLE EXPLOSIVES PRECURSORS
    None of the ingredients is listed.
- Regulation (EC) No 273/2004 on drug precursors
  None of the ingredients is listed.
- Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors
  None of the ingredients is listed.

- National regulations:
  - Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.
  - 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
  H225 Highly flammable liquid and vapour.
  H301 Toxic if swallowed.
  H302 Harmful if swallowed.
  H311 Toxic in contact with skin.
  H314 Causes severe skin burns and eye damage.
  H315 Causes skin irritation.
  H317 May cause an allergic skin reaction.
  H318 Causes serious skin burns and eye damage.
  H319 Causes serious eye irritation.
  H330 Fatal if inhaled.
  H331 Toxic if inhaled.
  H332 Harmful if inhaled.
  H335 May cause respiratory irritation.
  H361 Suspected of damaging fertility or the unborn child.
  H373 May cause damage to organs through prolonged or repeated exposure.
  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.
  H412 Harmful to aquatic life with long lasting effects.

- Abbreviations and acronyms:
  ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
Trade name: ergo 1673 - Component A ergo 1675

| ELINCS: European List of Notified Chemical Substances |
| CAS: Chemical Abstracts Service (division of the American Chemical Society) |
| DNEL: Derived No-Effect Level (REACH) |
| PNEC: Predicted No-Effect Concentration (REACH) |
| LC50: Lethal concentration, 50 percent |
| LD50: Lethal dose, 50 percent |
| PBT: Persistent, Bioaccumulative and Toxic |
| vPvB: very Persistent and very Bioaccumulative |
| Flam. Liq. 2: Flammable liquids – Category 2 |
| Acute Tox. 4: Acute toxicity – Category 4 |
| Acute Tox. 3: Acute toxicity – Category 3 |
| Acute Tox. 1: Acute toxicity – Category 1 |
| Skin Corr. 1A: Skin corrosion/irritation – Category 1A |
| Skin Corr. 1C: Skin corrosion/irritation – Category 1C |
| Skin Irrit. 2: Skin corrosion/irritation – Category 2 |
| Eye Dam. 1: Serious eye damage/eye irritation – Category 1 |
| Eye Irrit. 2: Serious eye damage/eye irritation – Category 2 |
| Skin Sens. 1: Skin sensitisation – Category 1 |
| Skin Sens. 1A: Skin sensitisation – Category 1A |
| Repr. 2: Reproductive toxicity – Category 2 |
| STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 |
| STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2 |
| Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1 |
| Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1 |
| Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2 |
| Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3 |

* Data compared to the previous version altered.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** ergo 1664 - Component B ergo 1665, ergo 1670, ergo 1675, ergo 1680

- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
  No further relevant information available.

- **Application of the substance / the mixture** Adhesives

- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
  Kisling AG
  Motorenstrasse 102
  CH-8620 Wetzikon
  Tel: +41- 58-272 0 272

- **Only representative (REACH) and importer (CLP):**
  Kisling Deutschland GmbH
  Salzstraße 15
  D-74676 Niedernhall
  Tel +49 8171 99982 30

- **Further information obtainable from:** Product safety department
- **Department issuing MSDS:** ergo@kisling.com
- **1.4 Emergency telephone number:**
  +49-700-24 112 112 (KAR)
  +1 872 5888271

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
  **Classification according to Regulation (EC) No 1272/2008**
  Org. Perox. E H242 Heating may cause a fire.
  Eye Irrit. 2 H319 Causes serious eye irritation.
  Skin Sens. 1 H317 May cause an allergic skin reaction.
  Aquatic Acute 1 H400 Very toxic to aquatic life.
  Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

- **2.2 Label elements**
  **Classification according to Regulation (EC) No 1272/2008**
  The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**

- **Signal word** Warning

- **Hazard-determining components of labelling:**
  dibenzoyl peroxide
  bis[4-(2,3-epoxypropoxy)phenyl]propane

- **Hazard statements**
  H242 Heating may cause a fire.
  H319 Causes serious eye irritation.
  H317 May cause an allergic skin reaction.
Trade name: ergo 1664 - Component B ergo 1665, ergo 1670. ergo 1675, ergo 1680

H410 Very toxic to aquatic life with long lasting effects.

- **Precautionary statements**
  - P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  - P261 Avoid breathing vapours.
  - P280 Wear protective gloves / eye protection.
  - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P410 Protect from sunlight.
  - P411+P235 Store at temperatures not exceeding 30°C. Keep cool.

- **Additional information:**
  - EUH205 Contains epoxy constituents. May produce an allergic reaction.

- **Hazard pictograms**
  - GHS02
  - GHS07
  - GHS09

- **Signal word** Warning

- **Hazard-determining components of labelling:**
  - dibenzoyl peroxide
  - bis[4-(2,3-epoxypropoxy)phenyl]propane

- **Hazard statements**
  - H317 May cause an allergic skin reaction.

- **Precautionary statements**
  - P261 Avoid breathing vapours.
  - P280 Wear protective gloves / eye protection.
  - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
  - PBT: Not applicable.
  - vPvB: Not applicable.

**SECTION 3: Composition/information on ingredients**

- **3.2 Mixtures**
- **Description:** Adhesive

- **Dangerous components:**

| CAS: 94-36-0 | dibenzoyl peroxide |
| EINECS: 202-327-6 | Org. Perox. B, H241; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Eye Irrit. 2, H319; Skin Sens. 1, H317 |
| Index number: 617-008-00-0 | > 30 - ≤ 100% |
| Reg.nr.: 01-2119511472-50-xxxx |

| CAS: 1675-54-3 | bis[4-(2,3-epoxypropoxy)phenyl]propane |
| EINECS: 216-823-5 | Aquatic Chronic 2; H411; Skin Irrit. 2; H315; Eye Irrit. 2; H319; Skin Sens. 1, H317 |
| Index number: 603-073-00-2 | ≥ 2.5 - < 5% |
| Reg.nr.: 01-2119456619-26-xxxx |

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.
SECTION 4: First aid measures

- 4.1 Description of first aid measures
  - General information:
    Immediately remove any clothing soiled by the product.
    Put contaminated clothing in water to prevent fire.
  - After inhalation:
    Supply fresh air and to be sure call for a doctor.
    In case of unconsciousness place patient stably in side position for transportation.
  - After skin contact:
    After contact with skin, wash immediately with plenty of soap and water.
    If skin irritation continues, consult a doctor.
  - After eye contact:
    In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
    Rinse cautiously with water for several minutes.
    Remove contact lenses, if present and easy to do. Continue rinsing.
  - After swallowing:
    Rinse out mouth and then drink plenty of water.
    If swallowed, do not induce vomiting: seek medical advice and show this container or label.

- 4.2 Most important symptoms and effects, both acute and delayed
  No further relevant information available.

- 4.3 Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
  - Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

- 5.2 Special hazards arising from the substance or mixture
  Formation of toxic gases is possible during heating or in case of fire.
  May cause fire. May re-ignite itself after fire is extinguished. This material increases the risk of fire and may aid combustion. In a fire or if heated, a pressure increase will occur and the container may burst. Runoff to sewer may create fire or explosion hazard.

- 5.3 Advice for firefighters
  - Protective equipment:
    Wear self-contained respiratory protective device.
    Do not inhale explosion gases or combustion gases.
  - Additional information
    Cool endangered receptacles with water spray.
    Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
  Keep away from ignition sources.

- 6.2 Environmental precautions:
  Inform respective authorities in case of seepage into water course or sewage system.
  Do not allow product to reach sewage system or any water course.

- 6.3 Methods and material for containment and cleaning up:
  Pick up mechanically.
  Flush away residues with plenty of water.
  Never use saw-dust or other flammable substances.
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
  Never replace spilled product into original containers (danger of decomposition).
  Dispose of the material collected according to regulations.

(Contd. on page 4) EU-EN
SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
  Keep receptacles tightly sealed.
- Information about fire - and explosion protection:
  Keep away from heat and direct sunlight.
  The product may cause fire due to release of oxygen. May be explosive, when combined with flammable substances.
  Violent relase of gases on decomposition.

- 7.2 Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
    - Information about storage in one common storage facility:
      Store away from flammable substances.
      Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.
      Store away from foodstuffs.
    - Further information about storage conditions:
      Keep receptacle tightly sealed.
      Protect from heat and direct sunlight.
      Store in a cool place.
  - Maximum storage temperature: 30 °C
  - Minimum storage temperature: 5 °C
  - Storage class (TRGS 510, Storage of hazardous substances in non-stationary containers): 5.2

- 7.3 Specific end use(s)
  No further relevant information available.

SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters
  - Additional information about design of technical facilities: No further data; see item 7.

- Ingredients with limit values that require monitoring at the workplace:
  94-36-0 dibenzoyl peroxide
    AGW (Germany) Long-term value: 5 E mg/m³
    1(I);DFG
  1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane
    MAK (Germany) vgl. Abschn. IIb

- DNELs
  94-36-0 dibenzoyl peroxide
    Dermal Longterm System 6.6 mg/kg bw/day (General population)
    Inhalative Acute, System 6.6 mg/m³ (General population)
    Longterm System 11.75 mg/m³ (General population)
  1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane
    Oral Acute, System 0.5 mg/kg (General population)
    Dermal Longterm System 0.0893 mg/kg bw/day (General population)
    Longterm System 0.75 mg/kg bw/day (Worker)
    Inhalative Longterm System 0.89 mg/m³ (General population)
    4.93 mg/m³ (Worker)
54.0.3 - PNECs

94-36-0 dibenzoyl peroxide

<table>
<thead>
<tr>
<th>Route</th>
<th>PNEC</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>6.67 mg/kg</td>
<td>Food (General population)</td>
</tr>
<tr>
<td></td>
<td>0.000602 mg/l</td>
<td>(General population)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.338 mg/kg</td>
<td>Freshwater (General population)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.0000602 mg/l</td>
<td>Freshwater (General population)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.0758 mg/kg</td>
<td>Soil (General population)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.35 mg/l</td>
<td>STP (General population)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.0338 mg/kg</td>
<td>Marinewater (General population)</td>
</tr>
</tbody>
</table>

No burden expected.

1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane

<table>
<thead>
<tr>
<th>Route</th>
<th>PNEC</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>11 mg/kg</td>
<td>Food</td>
</tr>
<tr>
<td></td>
<td>0.006 mg/l</td>
<td>Freshwater</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.341 mg/kg</td>
<td>Freshwater (General population)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.001 mg/l</td>
<td>Marinewater (General population)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.065 mg/kg</td>
<td>Soil (General population)</td>
</tr>
<tr>
<td>PNEC</td>
<td>10 mg/l</td>
<td>STP (General population)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.034 mg/kg</td>
<td>Marinewater (General population)</td>
</tr>
</tbody>
</table>

- Additional Information: The lists valid during the making were used as basis.

8.2 Exposure Controls

- Personal Protective Equipment:
  - General Protective and Hygienic Measures:
    The usual precautionary measures are to be adhered to when handling chemicals.
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Avoid contact with the eyes and skin.
  - Respiratory Protection:
    Use suitable respiratory protective device in case of insufficient ventilation.
    Filter A/P2
  - Protection of Hands:
    Protective gloves (EN 374)
    Check protective gloves prior to each use for their proper condition.
    The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
    Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
    Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  - Material of Gloves:
    The selection of the suitable gloves does not only depend on the material, but also on further marks of quality
    and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the
    resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the
    application.
  - Penetration Time of Glove Material:
    The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be
    observed.
  - Eye Protection:
    Tightly sealed goggles
  - Body Protection:
    Use protective suit.
### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

- **General Information**
  - **Appearance:** Pasty
  - **Colour:** Blue
  - **Odour:** Characteristic
  - **Odour threshold:** Not determined.

- **pH-value at 20 °C:** 6 - 7 (10%)

- **Change in condition**
  - **Melting point/freezing point:** Undetermined.
  - **Initial boiling point and boiling range:** Undetermined.

- **Flash point:** Not applicable.

- **Flammability (solid, gas):** May cause fire.

- **Decomposition temperature:** ≥50 °C (SADT)

- **Auto-ignition temperature:** Product is not self-igniting.

- **Explosive properties:** Product does not present an explosion hazard.

- **Explosion limits:**
  - **Lower:** Not determined.
  - **Upper:** Not determined.

- **Oxidising properties:** Not determined.

- **Density at 20 °C:** 1.15 g/cm³

- **Relative density:** Not determined.

- **Vapour density:** Not applicable.

- **Evaporation rate:** Not applicable.

- **Solubility in / Miscibility with water:** Insoluble.

- **Partition coefficient: n-octanol/water:** Not determined.

- **Viscosity:**
  - **Dynamic:** Not applicable.
  - **Kinematic:** Not applicable.

#### 9.2 Other information
No further relevant information available.

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity
No further relevant information available.

#### 10.2 Chemical stability

- **Thermal decomposition / conditions to be avoided:**
  
  SADT (Self-Accelerating Decomposition Temperature): is the lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the given temperature. Contact with incompatible substances can cause decomposition at or below the SADT. Protect from heat and direct sunlight.

- **Possibility of hazardous reactions:** Reacts with heavy metals.

- **Conditions to avoid:** No further relevant information available.

- **Incompatible materials:** Matal-salts, amines

(Contd. on page 7)
SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity: Based on available data, the classification criteria are not met.

- LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>Compound</th>
<th>LD50/D50</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane</td>
<td>Oral: 15,000 mg/kg (Rat, male/female)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dermal: 23,000 mg/kg (Rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

- Primary irritant effect:
- Skin corrosion/irritation: Based on available data, the classification criteria are not met.
- Serious eye damage/irritation: Causes serious eye irritation.
- Respiratory or skin sensitisation: May cause an allergic skin reaction.
- Additional toxicological information:
  - No experimentally found toxicological data are available for this preparation.
  - CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
    - Germ cell mutagenicity: Based on available data, the classification criteria are not met.
    - Carcinogenicity: 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: Based on available data, the classification criteria are not met.
- 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
- Aquatic toxicity: No further relevant information available.

- Toxicity to fish:

<table>
<thead>
<tr>
<th>Compound</th>
<th>LC50/96 h</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane</td>
<td>2 mg/l (Fish)</td>
<td></td>
</tr>
</tbody>
</table>

- 12.2 Persistence and degradability: No further relevant information available.
- 12.3 Bioaccumulative potential: No further relevant information available.
- 12.4 Mobility in soil: No further relevant information available.
- Ecotoxic effects:
  - Remark: Very toxic for fish
  - Additional ecological information:
    - General notes:
      - Also very poisonous for fish and plankton in water bodies.
      - Very toxic for aquatic organisms.
      - Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
      - Danger to drinking water if even small quantities leak into the ground.
      - Do not allow product to reach ground water, water course or undiluted sewage system.

- 12.5 Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

- 12.6 Other adverse effects: No further relevant information available.
SECTION 13: Disposal considerations
- 13.1 Waste treatment methods
  - Recommendation: Disposal must be made according to official regulations.
- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information
- 14.1 UN-Number
  - ADR, IMDG, IATA: UN3108
- 14.2 UN proper shipping name
  - ADR: 3108 ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide), ENVIRONMENTALLY HAZARDOUS
  - IMDG: ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide), MARINE POLLUTANT
  - IATA: ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide)
- 14.3 Transport hazard class(es)
  - ADR: 5.2 (P1) Organic peroxides.
- IMDG: 5.2 Organic peroxides.
- IATA: 5.2 Organic peroxides.
- 14.4 Packing group
  - ADR, IMDG, IATA: Void
- 14.5 Environmental hazards:
  - Marine pollutant: Symbol (fish and tree)
  - Special marking (ADR): Symbol (fish and tree)
- 14.6 Special precautions for user
  - Warning: Organic peroxides.
  - Hazard identification number (Kemler code): F-J,S-R
  - EMS Number: Peroxides
Trade name: ergo 1664 - Component B ergo 1665, ergo 1670, ergo 1675, ergo 1680

- **Stowage Category**: D
- **Stowage Code**: SW1 Protected from sources of heat.
- **Segregation Code**: SG35 Stow "separated from" SGG1-acids
  SG36 Stow "separated from" SGG18-alkalis.

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**: Not applicable.
- **Transport/Additional information:**
  - **ADR**
    - **Limited quantities (LQ)**: 500 g
    - **Excepted quantities (EQ)**: Code: E0 Not permitted as Excepted Quantity
  - **Transport category**: 2
  - **Tunnel restriction code**: D
  - **IMDG**
    - **Limited quantities (LQ)**: 500 g
    - **Excepted quantities (EQ)**: Code: E0 Not permitted as Excepted Quantity
  - **UN "Model Regulation":** UN 3108 ORGANIC PEROXIDE TYPE E, SOLID (DIBENZOYL PEROXIDE), 5.2, ENVIRONMENTALLY HAZARDOUS

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Chemical safety assessment**
    - **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
      None of the ingredients is listed.
    - **REGULATION (EU) 2019/1148**
      - **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
        None of the ingredients is listed.
      - **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**
        None of the ingredients is listed.
      None of the ingredients is listed.
    - **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**
      None of the ingredients is listed.
    - **National regulations:**
      - **Waterhazard class**: Water hazard class 2 (Self-assessment): hazardous for water.
      - **15.2 Chemical safety assessment**: A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
  H241 Heating may cause a fire or explosion.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
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.

- Abbreviations and acronyms:
  ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  DNEL: Derived No-Effect Level (REACH)
  PNEC: Predicted No-Effect Concentration (REACH)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  Org. Perox, B: Organic peroxides – Type B
  Org. Perox, E: Organic peroxides – Type E/F
  Skin Irrit. 2: Skin corrosion/irritation – Category 2
  Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
  Skin Sens. 1: Skin sensitisation – Category 1
  Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
  Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
  Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

* Data compared to the previous version altered.