Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Adwel® 1645
Company Name: Wanhua Chemical Group Co., LTD
Address 1: No.17, Tianshan Rd, YEDA, Yantai, China
   Telephone: 0086-535-3388160    Fax: 0086-535-6875138
Address 2: No.39, Huandao Road (North), Daxie Development Zone, Ningbo, P.R.China
   Telephone: 0086-574-86716680    Fax: 0086-574-86716679
Address 3: Shihua Road (six), Gaolangang Development Zone, Zhuhai, P.R. China
   Telephone: 0086-756-7232119

Emergencies Telephone:
WANHUA +86 535-8203123
China +86 532-83889090
EU+31 20 20 65132/65130, +44 780 183 7343
NA800-424-9300, +1-703-527-3887

Recommended uses:
Raw material for the adhesives used in the shoes.

Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture
Regulation (EU) No 1272/2008

Label elements
Regulation (EC) No. 1272/2008
No labeling necessary according to Directive (EC) No. 1272/2008

Hazard Statements: No obvious known reaction or serious danger.

Precautionary Statements:
Prevention:
Wear necessary protective equipment (gloves, safety glasses, overalls, etc.).
Use only outdoors or in a well-ventilated area.
Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Do not eat, drink or smoke, in the workplace.

Response:
IF ON SKIN: Take off contaminated clothing and wash before reuse. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/
attention. Wash hands after handling.

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, call a doctor/physician.

**Storage:**
Store in the dark, a cool and dry place, storage temperature should be kept in 5-35 °C, avoid frost, maintain product packaging integrity. Seal immediately after every usage. Use up all the product as soon as possible after opening the package.

**Disposal:**
Empty barrels used up shall not be stored food and other goods, before without free-pollution disposal. Prevent to cause harm to human body and environment. Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Environment hazards:** certain pollution to water and soil.

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### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: mixture

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Concentration</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyurethane</td>
<td>44-46%</td>
<td>N/A</td>
</tr>
<tr>
<td>Water</td>
<td>54-56%</td>
<td>7732-18-5</td>
</tr>
<tr>
<td>Acetone</td>
<td>&lt;1%</td>
<td>67-64-1</td>
</tr>
</tbody>
</table>

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### Section 4: FIRST AID MEASURES

**Description of first aid measures**

General advice: Take off all contaminated clothing immediately.

If inhaled: In case of irritation of the respiratory tract seek medical advice.

In case of skin contact: Wash off immediately with soap and plenty of water. Consult a doctor in the event of a skin reaction.

In case of eye contact: Hold the eyes open and rinse with preferably lukewarm water for a sufficiently long period of time (at least 20 minutes). Contact an ophthalmologist.

If swallowed: DO NOT induce the patient to vomit, medical advice is required.

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

Notes to physician: No information available.

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

Therapeutic measures: No information available.

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### Section 5: FIRE-FIGHTING MEASURES

**Extinguishing media**

Suitable extinguishing media: Carbon dioxide (CO₂), Foam, Extinguishing powder, Water spray jet

Unsuitable extinguishing media: High volume water jet

**Special hazards arising from the substance or mixture**
Burning releases carbon monoxide, carbon dioxide, oxides of nitrogen and traces of hydrogen cyanide. In the event of fire and/or explosion do not breathe fumes.

**Advice for fire-fighters**
Firemen must wear self-contained breathing apparatus. Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters.

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**Section 6: ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**
Personal precautions Use personal protection equipment. Keep unauthorized persons away.

**Environmental precautions**
Do not empty into drains.

**Methods and material for containment and cleaning up**
Methods for cleaning up: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**Reference to other sections**
Reference to other sections Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

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**Section 7: HANDLING AND STORAGE**

**Control parameters**
The product does not contain any relevant quantities of materials with critical values that have to be mentioned at the workplace.

**Handling**
The precautions required in the handling of solvents must be taken. Ensure adequate ventilation and, if necessary, exhaust ventilation when handling or transferring the product. Explosion protection required.

**Storage**
The product will keep stable for six months when stored in its sealed original packaging at temperatures between 5°C and 35°C. Storage at temperatures below 5°C will make the product frozen and cause irreversible damage. The product should therefore be protected from freezing during storage. Temperatures higher than 35°C should be avoided in order to prevent the evaporation of water, which will result in the formation of a non-redispersible polymer film.

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**Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Exposure controls**

**Respiratory protection:** Respiratory equipment required during spraying.

**Hand protection:** Suitable materials for safety gloves.
Butyl rubber – IIR: thickness >=0.5mm; breakthrough time >=480min.
Recommendation: contaminated gloves should be disposed of.
Eye protection: Wear eye / face protection.
Body protection: Wear suitable protective clothing.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Milky white</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight smell of acetone</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not established</td>
</tr>
<tr>
<td>pH</td>
<td>6.0-9.0</td>
</tr>
<tr>
<td>Pour point</td>
<td>Not established</td>
</tr>
<tr>
<td>Initial boiling point</td>
<td>Not established</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not established</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not established</td>
</tr>
<tr>
<td>Flammability(solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Burning number</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not established</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not established</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not established</td>
</tr>
<tr>
<td>Density</td>
<td>1.02-1.07 g/cm³ at 20 ºC</td>
</tr>
<tr>
<td>Miscibility with water</td>
<td>Miscible at 20 ºC</td>
</tr>
<tr>
<td>Surface tension</td>
<td>Not established</td>
</tr>
<tr>
<td>Partition coefficient(n-octanol/water)</td>
<td>Not established</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not established</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>500-4000 mPa.s at 25 ºC</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not established</td>
</tr>
<tr>
<td>Dust explosion class</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not established</td>
</tr>
</tbody>
</table>

Other information
The indicated values do not necessarily correspond to the product specification. Please refer to the technical information sheet for specification data.

Section 10: CHEMICAL STABILITY AND REACTIVITY INFORMATION

Reactivity
This information is not available.

Chemical stability
At a constant high temperature, dry solid content will undergo decomposition.

**Possibility of hazardous reactions**
This information is not available.

**Conditions to avoid**
This information is not available.

**Incompatible materials**
This information is not available.

**Hazardous decomposition products**
Formation of combustible and noxious fumes during thermal decomposition

### Section 11: TOXICOLOGICAL INFORMATION

Toxicological studies on the product are not yet available.

### Section 12: ECOLOGICAL INFORMATION

Ecotoxicological studies of the product are not available.
Do not allow to escape into waterways, wastewater or soil.

### Section 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with applicable international, national and local laws, ordinances and statutes

**Waste treatment methods**
After containers have been emptied as thoroughly as possible (e.g. by pouring, scraping or draining until "drip-dry"), they can be sent to an appropriate collection point set up within the framework of the existing take-back scheme of the chemical industry. Containers must be recycled in compliance with national legislation and environmental regulations.
None disposal into waste water.

### Section 14: TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>Not dangerous goods</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>Not dangerous goods</td>
</tr>
<tr>
<td>Transport hazard class</td>
<td>Not dangerous goods</td>
</tr>
<tr>
<td>Packing group</td>
<td>Not dangerous goods</td>
</tr>
<tr>
<td>Environment hazards</td>
<td>Not dangerous goods</td>
</tr>
</tbody>
</table>

### ADN

| UN number | Not dangerous goods |
| UN proper shipping name | Not dangerous goods |
| Transport hazard class | Not dangerous goods |
| Packing group | Not dangerous goods |
| Environment hazards | Not dangerous goods |

### IATA
UN number : Not dangerous goods
UN proper shipping name : Not dangerous goods
Transport hazard class : Not dangerous goods
Packing group : Not dangerous goods
Environment hazards : Not dangerous goods
IMDG
UN number : Not dangerous goods
UN proper shipping name : Not dangerous goods
Transport hazard class : Not dangerous goods
Packing group : Not dangerous goods
Environment hazards : Not dangerous goods
Special precautions for user
See section 6-8.
Additional information : Not dangerous cargo.
Avoid heat above 35°C or lower than 5°C, stay away from food, acids and bases. According to the latest version of IATA DGR, this product is not dangerous.

**Section 15: REGULATORY INFORMATION**

The product is classified and labeled according to Regulation (EC) No. 1272/2008 (GHS/CLP).
Safety, health and environmental regulation/legislation specific for the substance or mixture Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances.
Not applicable

**Section 16: OTHER INFORMATION**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.