Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: Antkote® 2025
Additional Name: Hydroxyfunctional polyacrylic dispersion
Company Name: Wanhua Chemical Group Co., LTD
Address: No.17, Tianshan Rd, YEDA, Yantai, 264006, China
Telephone: 0086-535-3388160 Fax: 0086-535-6875138
Emergencies Telephone:
WANHUA +86 535-8203123
China +86 532-83889090
EU +31 20 20 65132/65130, +44 780 183 7343
NA 800-424-9300, +1-703-527-3887

Recommended uses:
It can be used for waterborne two-component coatings in combination with polyisocyanates or other crosslinkers, or waterborne one component baking coatings in combination with amino resins or blocked polyisocyanates.

Section 2 - HAZARDS IDENTIFICATION

GHS Classification of the substance or mixture
Skin Corrosion/Irritation Category 3

Label elements
Pictogram: Not Applicable
Signal words: WARNING

Hazard statements:
H316 Causes mild skin irritation.

Precautionary statements:
Preventive measures:
Use the necessary personal protective equipment (gloves, goggles, protective clothing etc.). Clean the exposed parts of the body in case of skin contact. No eating, drinking or smoking in the workplace. Use only outdoors or in a well-ventilated area.

Accident response:
If inhaled: In case of reactions, seek medical advice.
If swallowed: Rinse mouth. Do not induce vomiting. If swallowed seek medical advice immediately.

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

Storage:
Please store the product in sealed original packaging, cool and dry condition. Storage
temperature should be maintained between 5°C and 35°C. The product should be protected from freezing during storage. Immediately seal the package after use.

**Disposal:**
In order to avoid the damage to human body and environment, do not store food and other items in the used empty packaging without harmless treatment; Recycling, utilization and disposal packaging should be in accordance with the applicable legislation. The disposer should be response for the damage and loss caused by improper waste disposal.

**Physical and chemical hazards:** May cause pollution to water and soil.

**Health hazard:** No

**Environmental hazards:** no release of dangerous substances. Do not allow to enter sewage system in case of blockage due to polymer deposition.

### 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>Polyacrylate containing hydroxylgroups</td>
<td>42-44%</td>
<td>N/A</td>
</tr>
<tr>
<td>1-Butoxy-2-propanol</td>
<td>3.5%</td>
<td>5131-66-8</td>
</tr>
<tr>
<td>Butyl diglycol</td>
<td>3.5%</td>
<td>112-34-5</td>
</tr>
<tr>
<td>Water</td>
<td>49-51%</td>
<td>7732-18-5</td>
</tr>
</tbody>
</table>

There is no GHS hazards classification for Polyacrylate containing hydroxylgroups
The following substances are precautionary mentioned.
Neutralizing agent, bound as a salt:
2-dimethylaminoethanol Concentration [wt-%]: < 2%
CAS-No.: 108-01-0  Index-No.: 603-047-00-0  EC-No.: 203-542-8
Classification (1272/2008/EC): Flam. Liq. 3 H226; Acute Tox.4 Inhalative H332; Acute Tox.4 Dermal H312; Acute Tox.4 Oral H302; Skin Corr. 1B H314; Eye Dam. 1 H318; STOT SE 3 H335
Specific threshold concentration (GHS): STOT SE 3 H335 >=5%

### Section 4 - FIRST AID MEASURES

**Description of first aid measures**

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

If inhaled: No special measures are necessary. In case of irritation, seek medical advice.
In case of skin contact: Wash with plenty of water/soap. In case of skin reactions, consult a physician.
In case of eye contact: Rinse cautiously with water for at least 20 minutes. Tilt the head in order to avoid contact with the other eye. Contact an ophthalmologist.
If swallowed: In all cases of doubt, or when symptoms persist, seek medical advice immediately.
Most important symptoms and effects, both acute and delayed
Symptoms: May cause irritation by skin contact.

Indication of any immediate medical attention and special treatment needed
Immediate medical attention: First Aid, decontamination, treatment of symptoms.

Section 5 - FIRE FIGHTING MEASURES
Extinguishing media
Suitable extinguishing media: Carbon dioxide (CO$_2$), Foam, Extinguishing powder, Water spray jet
In case of major fire and large quantities: Water spray jet, alcohol resistant foam
Co-ordinate fire-fighting measures to the fire surroundings.

Advice for firefighters
Firefighters have to wear self-contained breathing apparatus.

Hazards during fire-fighting
Carbon monoxide, Carbon dioxide, Oxynitride.

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 described 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

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 6 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.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure controls

**Respiratory protection**: Respiratory equipment required in insufficiently ventilated working areas and during spraying.

**Hand protection**: Suitable materials for safety gloves; EN 374:
- Butyl rubber – IIR: thickness >=0.5mm; breakthrough time >=480min.

**Recommendation**: contaminated gloves should be disposed of.
- Conditionally suitable materials for protective gloves; EN 374:
  - Nitrile rubber – NBR (>=0.35mm)
  - Breakthrough time not tested; dispose of immediately after contamination.

**Eye protection**: Wear eye/face protection.

**Body protection**: Wear suitable protective clothing.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Milky white</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Misible</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight inherent odour</td>
</tr>
<tr>
<td>Flammability</td>
<td>No</td>
</tr>
<tr>
<td>Vapour pressure (kPa)</td>
<td>Not established</td>
</tr>
<tr>
<td>pH</td>
<td>7.0-9.0</td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td>&gt;93</td>
</tr>
<tr>
<td>Density (g/cm³)</td>
<td>1.05 at 20 °C</td>
</tr>
<tr>
<td>Upper Explosive Limit (%v/v)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower Explosive Limit (%v/v)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point (°C)</td>
<td>Not established</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature (°C)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not established</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Volatile substance</td>
<td>1-Butoxy-2-propanol, Butyl diglycol, 2-dimethylaminoethanol</td>
</tr>
<tr>
<td>Molecular weight (g/mol)</td>
<td>Not established</td>
</tr>
<tr>
<td>Vapour density (Air = 1)</td>
<td>Not established</td>
</tr>
<tr>
<td>Relative density (Water = 1)</td>
<td>1.05</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>2000-9500 mPa.s at 25°C</td>
</tr>
<tr>
<td>VOC (g/l)</td>
<td>Not established</td>
</tr>
</tbody>
</table>
9.2 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

10.1 Stability
No decomposition when used and stored properly.

10.2 Materials to avoid
Acids, bases and electrolyte solution.

10.3 Conditions to avoid
Strong light, high temperature and low temperature.

10.4 Hazardous decomposition products
On drying of the coating release of neutralizing agent.

Section 11 - TOXICOLOGICAL INFORMATION

Toxicological studies on the product are not yet available.
Polyacrylate containing hydroxylgroups:
TOXICITY:
Not available
IRRITATION:
Not available

1-Butoxy-2-propanol:
TOXICITY:
dermal (rat) LD50: >2000 mg/kg
Inhalation (rat) LC50: >1997.718 mg/l/8hE
Oral (rat) LD50: >2000 mg/kg
IRRITATION: Eye (rabbit): Not Available

Butyl diglycol:
TOXICITY:
dermal (rat) LD50: >2000 mg/kg
Oral (rat) LD50: =4500 mg/kg
IRRITATION: Eye (rabbit): Not Available

Section 12 - ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>ENDPOINT</th>
<th>TEST DURATION (HR)</th>
<th>SPECIES</th>
<th>VALUE</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antkote® 2025</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Polyacrylate containing hydroxylgroups</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>1-Butoxy-2-propanol</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>
### Butyl diglycol

<table>
<thead>
<tr>
<th></th>
<th>LC50</th>
<th>EC50</th>
<th>EC50</th>
<th>NOEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>96</td>
<td>48</td>
<td>96</td>
<td>96</td>
</tr>
<tr>
<td>Crustacea</td>
<td>&gt;100mg/L</td>
<td>&gt;100mg/L</td>
<td>&gt;100mg/L</td>
<td>&gt;100mg/L</td>
</tr>
<tr>
<td>Algae or other aquatic plants</td>
<td>1300mg/L</td>
<td>1300mg/L</td>
<td>1300mg/L</td>
<td>1300mg/L</td>
</tr>
<tr>
<td>&gt;=100mg/L</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

### Persistence and degradability:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Persistence: Water/Soil</th>
<th>Persistence: Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Butoxy-2-propanol</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Butyl diglycol</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Water</td>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

### Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Bioaccumulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Butoxy-2-propanol</td>
<td>LOW (LogKOW = 0.9842)</td>
</tr>
<tr>
<td>Butyl diglycol</td>
<td>LOW (BCF = 0.46)</td>
</tr>
<tr>
<td>Water</td>
<td>LOW (LogKOW = -1.38)</td>
</tr>
</tbody>
</table>

### Mobility in soil:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Butoxy-2-propanol</td>
<td>HIGH (KOC = 1.289)</td>
</tr>
<tr>
<td>Butyl diglycol</td>
<td>LOW (KOC = 10)</td>
</tr>
<tr>
<td>Water</td>
<td>LOW (KOC = 14.3)</td>
</tr>
</tbody>
</table>

### Section 13 - DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Disposal considerations:** Do not dispose of with household waste. Do not allow to enter drains. Dispose of waste according to applicable legislation.

**Uncleaned empty packaging:** Handle contaminated packages in the same way as the substance itself.

**Suitable cleaning agents:** Water (with cleaning agent). Retain contaminated washing water and dispose it.

### Section 14 - TRANSPORTATION INFORMATION

**ADR/RID**

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>Not dangerous goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>Not dangerous goods</td>
</tr>
<tr>
<td>14.3 Transport hazard class</td>
<td>Not dangerous goods</td>
</tr>
</tbody>
</table>
14.4 Packing group  Not dangerous goods
14.5 Environment hazards  Not dangerous goods

**ADN**

14.1 UN number  Not dangerous goods
14.2 UN proper shipping name  Not dangerous goods
14.3 Transport hazard class  Not dangerous goods
14.4 Packing group  Not dangerous goods
14.5 Environment hazards  Not dangerous goods

**IATA**

14.1 UN number  Not dangerous goods
14.2 UN proper shipping name  Not dangerous goods
14.3 Transport hazard class  Not dangerous goods
14.4 Packing group  Not dangerous goods
14.5 Environment hazards  Not dangerous goods

**IMDG**

14.1 UN number  Not dangerous goods
14.2 UN proper shipping name  Not dangerous goods
14.3 Transport hazard class  Not dangerous goods
14.4 Packing group  Not dangerous goods
14.5 Environment hazards  Not dangerous goods

**14.6 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 IATA DGR, this product is not dangerous.

**Section 15 - REGULATORY INFORMATION**

15.1 The product is classified and labeled according to Regulation (EC)No. 1272/2008
15.2 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

Disclaimer:
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 a guideline 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.