Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: Wantipro® 0355
Additional Name: Aqueous polyurethane diol

Company Name: Wanhua Chemical Group Co., LTD
Address: No.17, Tianshan Rd, YEDA, Yantai, 264006, China
Telephone: 0086-535-5388160
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 is recommended as a modifier for amino crosslinked water soluble, dispersed and emulsified acrylic, alkyd, urethane and polyester resins.

Section 2 - HAZARDS IDENTIFICATION

2.1 GHS Classification of the substance or mixture

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

Pictogram
No information available

Warning:
No information available

Hazard statements:
No information available

Precautionary statements:
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302 + P305 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing.
Rinse skin with water/ shower.

2.3 Other hazards
No information available
Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>NAME</th>
<th>CAS RN</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Polyurethane Diol</td>
<td>N/A</td>
<td>86.0-90.0%</td>
</tr>
<tr>
<td></td>
<td>Water</td>
<td>7732-18-5</td>
<td>10.0-14.0%</td>
</tr>
</tbody>
</table>

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 (CO₂), 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 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

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.

Remarks
The values for density and viscosity are guide values. Please see the product information sheet.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Significant routes of exposure:
Human exposure: by inhalation.
Environmental exposure: air.
Pattern of exposure: accidental/infrequent.

The recommended control strategies:
1. Employ good industrial hygiene practice.
2. Use local exhaust ventilation.
3. Enclose the process.
4. Seek the advice of a specialist.

8.1. Control parameters
8.1.1. Occupational Exposure Limit values: Not applicable.
8.1.2. DNEL/PNEC-values: No data.

8.2. Exposure controls
8.2.1. Appropriate engineering controls: Provide suitable exhaust ventilation at the processing machines.
8.2.2. Personal protection equipment
8.2.2.1. Eye / Face protection: Closed safety glasses with side-shields (frame goggles).
8.2.2.2. Skin protection:
   Hand protection: Chemical resistant protective gloves.
   Body protection: Safety shoes and closed work clothing.
8.2.2.3. Respiratory protection: For most conditions, no respiratory protection is needed. If handling at elevated temperature without sufficient ventilation or in presence of aerosols, use breathing apparatus, full face mask respirator. Respirators type protection can be used in combination with an organic vapour filter type A.
8.2.2.4. General safety and hygiene measures: Do not breathe vapours/spray. Keep away from drink, food and animal feeding stuffs. No eating, drinking, smoking or tobacco use at the place of work. Hands and face should be washed before breaks and at the end of shift. At the end of the shift the skin should be cleaned and skin-care agents applied.

8.2.3. Environmental exposure controls: In accordance with local and national regulations.

**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>Light straw liquid</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Miscible</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>Not established</td>
</tr>
<tr>
<td>Partition coefficient n-octanol / water (logkow)</td>
<td>Not established</td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td>&gt;100°C</td>
</tr>
<tr>
<td>Density (g/cm³)</td>
<td>ca. 1.122-1.145g/cm³ at 20°C</td>
</tr>
<tr>
<td>Upper Explosive Limit[% (v/v)]</td>
<td>Not established</td>
</tr>
<tr>
<td>Lower Explosive Limit[% (v/v)]</td>
<td>Not established</td>
</tr>
<tr>
<td>Boiling point (°C)</td>
<td>Not established</td>
</tr>
<tr>
<td>Melting point (°C)</td>
<td>Not established</td>
</tr>
<tr>
<td>Auto-ignition temperature (°C)</td>
<td>Not established</td>
</tr>
<tr>
<td>Decomposition temperature (°C)</td>
<td>Not established</td>
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</tbody>
</table>
### Table

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatile substance</td>
<td>Not established</td>
</tr>
<tr>
<td>Molecular weight (g/mol)</td>
<td>Not established</td>
</tr>
<tr>
<td>Relative density (Air = 1)</td>
<td>Not established</td>
</tr>
<tr>
<td>Relative density (Water = 1)</td>
<td>1.122-1.145 (20℃)</td>
</tr>
<tr>
<td>Viscosity</td>
<td>1000-6000 mPa.s at 25 ℃</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 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.

### Section 12 - ECOLOGICAL INFORMATION

Ecological studies on the product is not yet available.

### 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

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

#### 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 57th of IATA
DGR 2016, this product is not dangerous.

**Section 15 - REGULATORY INFORMATION**

15.1 The product is classified and labelled according to Regulation (EC) No. 1272/2008 (GHS/CLP).

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**

<table>
<thead>
<tr>
<th>Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLV</td>
</tr>
<tr>
<td>TWA</td>
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</table>

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