WE ARE COMMITTED TO CREATING A WORLD-CLASS CHEMICAL MATERIAL COMPANY!

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CONTACT US

www.whchem.com
CONSTANT PURSUIT OF CREATING A BETTER LIFE FOR THE HUMAN BEING!

COMPANY PROFILE

Wanhua Chemical, the fastest growing isocyanate company in the world, is mainly engaged in the R&D, production and sales of MDI and modified MDI series products, ADI series product, polyether for rigid polyurethane foam series product, aromatic polyamine series product and TPU series product. Meanwhile, we are also committed to develop our business in petrochemicals such as AA&AE, functional chemicals like water-based resin and superabsorbent polymer(SAP). These products are sold worldwide to around 100 countries.

Currently, Wanhua Chemical already has three integrated production bases located in Yantai, Ningbo and Henan. New R&D centers and production bases in Beijing, Shanghai, Zhejiang and Chengdu are currently being built. Sales offices and local distributors are located in more than 10 countries including America, Russia, Japan, Turkey and India.

With a corporate spirit of being practical, innovative and pursuing superexcellence, Wanhua persist on self-innovation for over more than 30 years. We focus on the need of our customers and are committed to becoming a top-class supplier and service provider across the world. In the future, Wanhua will consistently work to establish itself as a top manufacturer of new chemical materials and continue to create a beautiful life for mankind.

WANHUA GLOBAL

HISTORY AND DEVELOPMENT

December 20, 1998
Yantai Wanhua Polyurethane Co., Ltd. (the predecessor of Wanhua Chemical) was established.

January, 2001
Yantai Wanhua became listed in Shanghai Stock Exchange.

January, 2008
The development and commercialization of 200,000 tons/year MDI manufacturing process received the first prize of National Science and Technology Progress.

July, 2008
The 300,000 tpa-n/year MDI Project was recognized as a National Environment-Friendly Project.

March, 2009
Wanhua Chemical won the award of Hewitt’s Best Employers in China.

December, 2010
Wanhua Chemical won the second prize of National Science and Technology Progress.

February 4, 2011
Wanhua Industrial group announced that it acquired 96% stocks of BorocChem at the press conference in Budapest.

March 15, 2011
Foundation ceremony for Wanhua Yantai Industrial Park was conducted, marking the opening of the park construction.

June 16, 2011
Wanhua Chemical won the title of Hewitt’s Best Employers in China for the second time.

July 7, 2012
Wanhua Chemical was granted the 2011 Golden Bull Evergreen Company award, the only chemical manufacturer who received the award this year.

January, 2013
Wanhua Chemical won the second prize of National Award for Technological Invention.

June 6, 2013
Yantai Wanhua Polyurethanes Co., Ltd. Changed the company name to Wanhua Chemical Group Co., Ltd.

September 25, 2013
Wanhua Chemical won the title of Hewitt’s Best Employers in China 2013 for the third time.

March, 2015
Wanhua Chemical won the title of Hewitt’s Best Employers in China 2013 for the fourth time.
INNOVATION IS OUR CORE COMPETITIVENESS AND OUR DRIVING FORCE FOR SUSTAINABLE DEVELOPMENT!

INTRODUCTION

**WANICE® Series Product**

WANICE® series products (Superabsorbent Polymer; SAP), based on our advanced research and development platform of functional polymer materials, are the new launched products of Wanhua. The product is able to absorb several hundred times water or dozens times physiological saline of its deadweight in seconds. It also can keep the water, even under pressure or be heated. WANICE® series products have several superior properties, such as faster absorption rate, excellent Liquid Permeability, higher water retention and outstanding absorbency properties. We present this specification for you to consult the main information of WANICE® series.

**Applications**

WANICE® products are non-toxic, innocuous and non-pollution. Due to the excellent performance, the SAP products are widely used in baby-diapers, adult-diapers, sanitary napkins and other hygienic products. Apart from the water-retaining property, it can also improve the soil structure and increase the soil permeability, so it has been successfully used in agriculture, forestry and plant cultivation. Furthermore, WANICE® product can be used in fresh-keeping packing, waterproofing agent for cables, medical supplies and other water-proofing material.

**Customization Service**

As a reliable SAP supplier, we fully consider the demand of the market and our customers, and be committed to provide one-step service system and customized solution for our customers. Wanhua creates value for all customers and helps to achieve greater success based on our high-quality product, solid supply chain and professional technical service. And we are dedicated to develop and improve our products to provide more specific, tailor-made solution.

WE BELIEVE THAT OUR PRODUCTS CAN CREATE A BETTER LIFE!

**APPLICATIONS**

- Baby diaper
- Adult diaper
- Sanitary napkin
- Pet pads
- Nursing pads
- Fresh keeping agent/Moisture holding agent
- Toy/ Artificial snow
- Heat Pad/Ice Pad
- Anti-staining agent
- Waterproofing agent for cables or industry

<table>
<thead>
<tr>
<th>Brand</th>
<th>Absorbency</th>
<th>Absorbing Speed</th>
<th>Liquid Permeability</th>
<th>Retention</th>
<th>Absorbency Under Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>WANICE® W8S-931</td>
<td>5⭐️⭐️⭐️⭐️⭐️⭐️</td>
<td>6⭐️⭐️⭐️⭐️⭐️⭐️</td>
<td>3⭐️⭐️⭐️⭐️⭐️⭐️</td>
<td>4⭐️⭐️⭐️⭐️⭐️⭐️</td>
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<td>WANICE® W8S-935</td>
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<td>5⭐️⭐️⭐️⭐️⭐️⭐️</td>
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<td>WANICE® W8S-825</td>
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<td>5⭐️⭐️⭐️⭐️⭐️⭐️</td>
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</tbody>
</table>

**[Image of products and applications]**
**WE BELIEVE THAT OUR PRODUCTS CAN CREATE A BETTER LIFE!**

### PERFORMANCE

<table>
<thead>
<tr>
<th>Brand</th>
<th>WANICE® WHS-998</th>
<th>WANICE® WHS-998</th>
<th>WANICE® WHS-838</th>
<th>WANICE® WHS-736</th>
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<tbody>
<tr>
<td>Applications</td>
<td>Baby/Adult Diapers</td>
<td>Baby/Adult Diapers/ Ultra-thin Diapers</td>
<td>Baby/Adult Diapers/ Ultra-thin Diapers</td>
<td>Sanitary Napkin/Nursing Pad/Pet Mat</td>
</tr>
<tr>
<td>Feature</td>
<td>Higher Absorbency, Excellent Retention</td>
<td>Rapid Absorption</td>
<td>Higher Absorbency under Load, Excellent Liquid-Permeability</td>
<td>Rapid Absorption, Excellent Retention</td>
</tr>
<tr>
<td>Appearance</td>
<td>White Granule with Outstanding Yellow-resistance</td>
<td>White Granule with Outstanding Yellow-resistance</td>
<td>White Granule with Outstanding Yellow-resistance</td>
<td>White Granule with Outstanding Yellow-resistance</td>
</tr>
<tr>
<td>Particle Size</td>
<td>0.15-0.2 mm</td>
<td>0.15-0.2 mm</td>
<td>0.15-0.7 mm</td>
<td>0.15-0.6 mm</td>
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<tr>
<td>Bulk Density</td>
<td>0.60-0.70 g/cm³</td>
<td>0.60-0.70 g/cm³</td>
<td>0.60-0.70 g/cm³</td>
<td>0.60-0.70 g/cm³</td>
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<tr>
<td>Absorbency (Deionized water)</td>
<td>&gt; 400 g/g</td>
<td>&gt; 350 g/g</td>
<td>&gt; 350 g/g</td>
<td>&gt; 350 g/g</td>
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<tr>
<td>Absorbency (Physiological saline)</td>
<td>&gt; 55 g/g</td>
<td>&gt; 50 g/g</td>
<td>&gt; 50 g/g</td>
<td>&gt; 50 g/g</td>
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<tr>
<td>Retention</td>
<td>&gt; 40 %</td>
<td>&gt; 35 %</td>
<td>&gt; 33 %</td>
<td>&gt; 33 %</td>
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<tr>
<td>Absorbency Under Load (0.3 psi)</td>
<td>&gt; 37 g/g</td>
<td>&gt; 32 g/g</td>
<td>&gt; 33 g/g</td>
<td>&gt; 27 g/g</td>
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<tr>
<td>Absorbency Under Load (0.7 psi)</td>
<td>&gt; 15 g/g</td>
<td>&gt; 22 g/g</td>
<td>–</td>
<td>–</td>
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<tr>
<td>Absorbing Speed Vortex</td>
<td>&lt; 40 s</td>
<td>&lt; 30 s</td>
<td>&lt; 40 s</td>
<td>&lt; 25 s</td>
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<tr>
<td>Moisture Content</td>
<td>&lt; 5 %</td>
<td>&lt; 5 %</td>
<td>&lt; 5 %</td>
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<tr>
<td>pH Value</td>
<td>5.5-6.5</td>
<td>5.5-6.5</td>
<td>5.5-6.5</td>
<td>5.5-6.5</td>
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<tr>
<td>Anti-caking Property</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

### Storage

Super absorbent polymer is moisture-absorb. So the product should be placed in a cool, ventilated warehouse. Pay attention to the storage humidity. Please use up as soon as possible after opening the package, or seal the opening of the package strictly. The shelf life for WANICE® Series is 24 months. The appearance of the product may change slightly in the process of long-term storage, avoiding light and moisture in storage.

### Safety

According to the local laws and regulations, WANICE® Series do not belong to hazardous medical. Further safety information, please refer to the safety data sheet (MSDS).
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OUR PRODUCTS CAN CREATE A BETTER LIFE!

CONTACT US

In a constantly changing world, chemistry takes a leading role in improving people’s lives through innovation.

Wanhua dedicates itself to becoming a first-class global chemical company, achieving international standards, including international operations.

We adhere to the highest standard of business ethics and safety standards. We promote “green chemistry” and environmental responsibility. We commit to our customers through high quality products, a solid supply chain and value-added services. Let’s work together to achieve our mission: creating a better life.

For more information about our products and applications, please contact us.

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