

Yongkang Changxing Biomass Technology Co., Ltd.

## Material Safety Data Sheet

### Section 1: Chemical Product And Company Identification

#### 1.1. Identification of the substance

Product Name: Natural Fiber Composites

Product Type: ChangxingZM-P111/112/121

#### 1.2. Company Identification

Yongkang Changxing Biomass Technology Co., Ltd.

No. 36 Huahai Road, Chengxi Industrial Zone, Yongkang City.

Tel: +0086-0579-87010526

Fax: +0086-0579-87016323

Postal Code: 321300

### Section 2: Composition / Information On Ingredients

Complete composition is provided below and may include some components classified as non-hazardous:

Chemical Composition

Natural(biomass) fibers	Olefin polymer	Other Additive
Max %	Max %	Max %
45%	50%	5%

### Section 3: Hazards Identification

#### 3.1. Emergency Overview

CAUTION: Can cause thermal burns.

May cause eye, skin and respiratory tract irritation.

#### 3.2. Potential health effects

##### 3.2.1. Primary routes of exposure

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact.

Skin contact may be a route of entry for liquified gases.

##### 3.2.2. Acute toxicity

Contact with molten product may cause thermal burns. The resin in pelleted form poses a low hazard.

##### 3.2.3. Irritation

Frequent and prolonged contact can lead to skin irritation.

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### 3.2.4. Sensitization

No data available concerning sensitizing effects.

### 3.2.5. Repeated dose toxicity

No data available concerning repeated dose toxicity.

### 3.2.6. Medical conditions aggravated by overexposure

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance.

## 3.3 Potential Health Effects

### 3.3.1. Terrestrial toxicity

No data available concerning terrestrial toxicity.

## Section 4: First Aid Measures

### 4.1. If inhaled

Remove the affected individual into fresh air and keep the person calm. If difficulties occur: Seek medical attention.

### 4.2. If on skin

Areas affected by molten material should be quickly placed under cold running water, Burns caused by molten material require hospital treatment. Seek medical assistance for removal of adhering material.

### 4.3. If in eyes

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.

### 4.4. If swallowed

No hazards anticipated. Rinse mouth and then drink plenty of water. If difficulties occur: Seek medical attention.

Note to physician

Treatment: Treat according to the symptoms under clinical conditions.

## Section 5: Fire Fighting Measures

### 5.1. Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.2. Protective equipment for fire fighting

Firefighters should be equipped with self-contained breathing apparatus and turn-out

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gear.

### 5.3.Further information

When large quantities of solid substance/product are involved, melting may occur, in which condition, application of water may cause extensive scattering of molten Material.

## Section 6: Accidental Release Measures

### 6.1.Personal precautions

Avoid inhalation. Avoid contact with the skin, eyes, and clothing. Sources of ignition should be kept well clear.

### 6.2.Clean up

Avoid raising dust. Ensure adequate ventilation. After decontamination, spill area can be washed with water.

For small amounts: Sweep/shovel up.

For large amounts: Sweep/shovel up. Vacuum up spilled product.

### 6.3.Further information

High risk of slipping due to leakage/spillage of product.

## Section 7: Handling And Storage

### 7.1.Handling

Protection against fire and explosion; Avoid dust formation. Provide exhaust ventilation. Dust can form an explosive mixture with air.

### 7.2.Storage

#### 7.2.1.General advice

Keep container tightly closed and dry; Store in a cool place; (Avoid extrem heat;)

Avoid direct sunlight; Avoid all sources of ignition; Heat, sparks, open flame.

Packaging should be sealed properly to prevent ingress of moisture. Avoid contact with sharp edges.

Storage class (TRGS 510):Combustible Solids.

#### 7.2.2.Storage incompatibility

General: Segregate from strong oxidizing agents.

#### 7.2.3.Storage stability

Avoid long-term storage under high temperature and humidity.

## Section 8: Exposure Controls / Personal Protection

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### 8.1. Advice on system design

Provide exhaust ventilation at sources when processing molten product.  
Provide local exhaust ventilation to control dusts/vapours.

### 8.2. Personal protective equipment

#### 8.2.1. Respiratory protection

Respiratory protection may not be required under normal operating conditions if adequate ventilation is provided. Wear respiratory protection if ventilation is inadequate.

#### 8.2.2. Hand protection

Chemical resistant protective gloves; Use additional heat protection gloves when handling hot molten masses (e.g. of textile or leather).

#### 8.2.3. Eye protection

Safety glasses with side-shields. Wear splash goggles to protect from hot molten substance/product.

#### 8.2.4. Body protection

Body protection must be chosen based on level of activity and exposure.

#### 8.2.5. General safety and hygiene measures

Avoid contact of molten material with skin. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Eye wash fountains and safety showers must be easily accessible. Handle in accordance with good industrial hygiene and safety practice.

## Section 9: Physical & Chemical Properties

Form: Granule

Odour: Odourless

### ChangxingZM-P111/112/121

Testing Item	Standard	Unit	Result
Appearance	/	/	White / cylinder and round shape
Density	GB/T 1033.1-2008	g/cm <sup>3</sup>	1.0-1.2
Melt Flow Rate	GB/T 3682-2000	g/10 min	9-20
Bending strength	GBT 9341-2008	MPa	≥30
Flexural modulus	GBT 9341-2008	MPa	≥1200
Izod notched impact strength (A)	GBT 1843-2008	KJ/m <sup>2</sup>	≥3.5
Moulding shrinkage	GBT 17037.4-2003	%	1.1-1.5

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**Section 10: Chemical Stability & Reactivity Information**

## 10.1. Conditions to avoid

Avoid extreme heat. Avoid all sources of ignition: heat, sparks, open flame.

## 10.2. Substances to avoid

Strong oxidizing agents, chlorinated hydrocarbons, aromatic solvents.

## 10.3. Decomposition products

Possible thermal decomposition products: gases/vapours, monomers, oxides, hydrocarbons.

## 10.4. Corrosion to metals

No corrosive effect on metal.

**Section 11: Toxicological Information**

## 11.1. Chronic toxicity

No chronic toxicity.

## 11.2. Other information

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

**Section 12: Ecological Information**

## 12.1. Environmental toxicity

No environmental toxicity.

## 12.2. Other ecotoxicological advice

At the present state of knowledge, no negative ecological effects are expected.

**Section 13: Disposal Considerations**

## 13.1. Waste disposal of substance

Dispose of in accordance with national, state and local regulations.  
Don't discharge into waterways or sewer systems without proper authorization.

## 13.2. Contaminated packaging

Dispose of in accordance with national, state and local regulations;  
Uncontaminated packaging can be recycled.

**Section 14: Transportation Information**

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Follow all relevant regulations for transportation in your country;  
Reference Bill of Lading.

### **Section 15: Regulatory Information**

US Federal Regulations General Product Information

In reference to Title VI of the Clean Air Act of 1990, this material does not contain nor was it manufactured using ozone-depleting chemicals.

### **Section 16: Other Information**

HMIS III Rating

Health:1; Flammability:2; Physical hazard:0.

HMIS uses a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates high hazard.

Important:

While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate. It is provided for your guidance only. Because many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth, or that the products, designs, data or information may be used without infringing the intellectual property rights of others. In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sale. Further, you expressly understand and agree that the descriptions, designs, data, and information furnished by Shangjiu hereunder are given gratis and Shangjiu assumes no obligation or liability for the description, designs, data and information given or results obtained. All such being given and accepted at your risk.

If there are queries and questions with Material Safety Data Sheet (MSDS), do not hesitate to contact us.