

**Beijing Tiertime Technology Co., Ltd.**

**No.18 Yanqi Avenue**

**Yanqi Economic Development Area**

**Huairou District, Beijing, P. R. China**

**Tel: +86 10-69667183**

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## **1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** ABS Filament, ABS+ Filament

**Region:** China

**Product type:** Plastic Filament

**Restriction of use:** None identified

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## **2. HAZARDS IDENTIFICATION**

**Most Important Hazards** None

**Adverse Human Health Effects** None

**Environmental Effects** None

**Physical and Chemical Hazards** None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Substance or Preparation</b>	Substance
<b>Chemical Name</b>	Acrylonitrile-Butadiene-Styrene Copolymer
<b>Content</b>	> 99 % (Additives < 1 %)
<b>Formula</b>	(C <sub>3</sub> H <sub>3</sub> N, C <sub>4</sub> H <sub>6</sub> , C <sub>8</sub> H <sub>8</sub> ) <sub>x</sub>
<b>CAS No.</b>	9003-56-9
<b>Impurities Contributing to Hazard</b>	None

### 4. FIRST AID MEASURES

<b>Inhalation</b>	In case of gases evolving from melted resin, move subject to fresh air.  Treat symptomatically.
<b>Skin Contact</b>	In case of pellets or powder, wash with water. In case of melt, wash affected skin area and clothing with plenty of (soap and) water.  Seek medical advice.
<b>Eye Contact</b>	In case of pellets or powder, flush with plenty of water for at least 15 minutes.  Seek medical advice if any dust particles still remain.  In case of gases evolving from melted resin of high temperature, flush with plenty of water for at least 15 minutes.  Seek medical advice if necessary.
<b>Ingestion</b>	Induce vomiting. Rinse mouth with water. Seek medical advice if necessary.

### 5. FIRE-FIGHTING MEASURES

<b>Extinguishing Media</b>	Water, Foam, Dry chemical powder
<b>Special Fire-Fighting Procedure</b>	Self contained breathing apparatus
<b>Fire and Explosion Hazards</b>	None

### 6. ACCIDENTAL RELEASE MEASURES

<b>Methods for Cleaning up</b>	Recovery if not contaminated or Disposal
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**Personal Precautions**

Pellets or powder remained on ground may cause slipping

**Environmental Precautions**

Gather pellets and powder thoroughly to avoid birds or fishes taking from draining water.

**7. HANDLING AND STORAGE**

**Handling**

Prevent from fire around handling area. Maintain good housekeeping standards to prevent accumulation of dust. To avoid dust explosion resulting from the existence of powder, electrostatics eliminators and grounding should be fixed to such equipment as air transferring pipes, bag filters and hoppers. Use electrically conductive filters for bag filters.

**Storage**

Keep the materials at a cool dry place. Protect from direct sunlight, rain and violent temperature fluctuation. Fire is inhibited around storage area.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Threshold Limit Value**

Not determined

**Ventilation**

Necessary to exclude dust, fumes and gases

**Personal Protection**

Eye

Wear safety glasses for general purpose. Wear chemical goggles for cleaning molding machines.

Respiratory

Wear masks for cleaning molding machines.

Gloves

Necessary for handling melted resin.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Filament
<b>Physical state</b>	Solid
<b>Odor:</b>	None
<b>Melting Temperature</b>	Softening above 100°C
<b>Solubility</b>	Insoluble in water
<b>Specific Gravity</b>	1.03 ~ 1.10

## 10. STABILITY AND REACTIVITY

<b>Flammability</b>	Yes
<b>Flash Point</b>	404°C
<b>Auto-ignition Temperature</b>	466°C
<b>Reactivity with Water</b>	No
<b>Stability</b>	Stable and non-reactive under normal handling and storage condition.
<b>Thermal Decomposition Gases</b>	CO, HCN, AN, SM and NO
<b>Combustion Energy</b>	$3.53 \times 10^7$ J/kg (8424 Kcal/kg)

## 11. TOXICOLOGICAL INFORMATION

<b>Irritation</b>	Fumes or vapors generated from decomposing resin may be irritant to eyes.
<b>Acute oral toxicity (LD50)</b>	Not determined
<b>Mutagenicity</b>	Not determined

## 12. ECOLOGICAL INFORMATION

To avoid being taken by ocean species or birds, disposal of the waste to the ocean and water sources is inhibited.

## 13. DISPOSAL CONSIDERATIONS

Controlled incineration or landfill according to local, state or national laws and regulations concerning health and pollution.

Inadequate incineration may generate toxic gases such as CO, HCN, AN and SM.

**14. TRANSPORT INFORMATION**

Not classified

**15. REGULATORY INFORMATION**

Not available

**16. OTHER INFORMATION**

None