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**MATERIAL SAFETY DATA SHEET (MSDS)****NINGBO JINHAI CHENGUANG CHEMICAL CORPORATION****Thermoplastic Elastomer SBS      CAS Number: 9003-55-8****SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND COMPANY****PRODUCT NAME:** Thermoplastic Elastomer SBS**Other means of identification:**

Styrene-Isoprene-Styrene: HAI-SIS JH-7302, JH-7401, JH-7402.

**CHEMICAL FAMILY:** Thermoplastic Elastomer SBS / Styrene-Butadiene-Styrene Block Copolymer**CAS NUMBER:** 9003-55-8**RELEVANT USES:** Thermoplastic elastomer for advanced materials, adhesives, sealants & coatings, and paving & roofing.**MANUFACTURER/SUPPLIER NAME:**

NINGBO JINHAI CHENGUANG CHEMICAL CORPORATION.

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**Date prepared:**

15 December, 2018

**SECTION 2 HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture**

Classification (GHS-US)

Not classified

**2.2. Label Elements**

Signal word: None

Pictogram: None

Hazard statements: None

**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS****SUBSTANCES/MIXTURE\_GENERAL INFORMATION:****3.1. Mixture**

Products as manufactured are classified as non-hazardous and chemical disclosure is not required by regulation(s). The product contains listed below:

Chemical name	Concentration	Additional identification	Notes
Styrene-Butadiene-Styrene Polymer(SBS)	≥99.5%	proprietary	
Additives	≤0.5%	not applicable	



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## SECTION 4 FIRST AID MEASURES

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### 4.1. Description of First Aid Measures

**First-aid measures after inhalation:** Supply fresh air. Seek medical treatment.

**First-aid measures after skin contact:** Wash hands. If contact with molten product, immediately flush with cool water. Do not pull solidified product off skin. Seek medical treatment.

**First-aid measures after eye contact:** Rinse eyes with water. If contact with molten product, immediately flush with cool water. Seek medical treatment.

**First-aid measures after ingestion:** Do not induce vomiting. Get medical advice/attention if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms/injuries:** Long term skin contact could cause skin dryness.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat Symptoms. No specific antidote.

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## SECTION 5 FIRE FIGHTING MEASURES

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### Extinguishing media :

**Suitable Extinguishing Media:** Carbon Dioxide, powder or water spray. For Large fires use foam, water spray and call for fire-fighting assistance.

**Unsuitable Extinguishing Media:** Do not use a solid water stream as it may scatter and spread fire.

### Special hazards arising from the substance or mixture

**Fire hazard:** Not flammable but will burn. Combustion of products may include carbon monoxide and carbon dioxide.

**Explosion hazard:** Static charge buildup can be a potential fire hazard when used in the presence of volatile, flammable vapors or in high airborne dust concentrations.

**Reactivity:** Non-reactive.

### Advice for firefighters

**Protection during firefighting:** Keep container cool with water. Use standard protective clothing for fire fighters, including

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## SECTION 6 ACCIDENTAL RELEASE MEASURES

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### 6.1. Personal precautions, protective equipment and emergency procedures

**General measures:** If spilled, may cause a slipping hazard. Avoid dust generation. Keep away from ignition sources. Ensure proper ventilation.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

**For containment:** Shovel, or sweep up or use industrial vacuum cleaner. Products are non-hazardous waste. Proper disposal should be evaluated based on local regulations/legislation or directives.



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## SECTION 7 HANDLING AND STORAGE

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### PRECAUTIONS FOR SAFE HANDLING:

Prevent generation of dust. If necessary, wear a dust mask. Use local exhaust above processing areas. Take precautionary measures against static discharge. Earth/Ground processing equipment. Product has a tendency to accumulate static charge during transport, handling and processing. Considering the risks of electrostatic discharges, handling the products in potentially flammable atmospheres should be evaluated. Suitable precautions should be taken at all times, in particular when emptying bags or other packaging. Reducing the velocity of transport will reduce charging. Static charge buildup can be a potential fire hazard when used in the presence of volatile or flammable mixtures. Keep away from ignition sources. If product is processed into smaller particles, explosive hazardous conditions must be evaluated. When processing Jinhai products, maintain a fire watch if material reaches 225°C (437°F). Operating below these temperatures does not guarantee the absence of product degradation. The temperatures listed are indicated only for safety reasons (risk of fire and product degradation) and are not recommended for processing. Degradation of the polymer will start at lower temperatures depending on the specific processing conditions. Wash hands after use. Avoid eating, drinking and smoking in work areas. For more information about processing precautions, consult the Jinhai Data Documents, Static Electricity Bulletin, or other technical literature available from your Sales Representative.

### STORAGE:

Do not store outside. Keep container dry. Keep in a cool, well-ventilated place. Products contain an antioxidant to aide in stabilizing the polymer over its recommended use and storage conditions. Exposure to direct sunlight or elevated temperatures over prolonged periods of time consumes the antioxidant at an increased rate and may lead to self-heating. Do not stack Flexible Intermediate Bulk Containers (FIBCs) or palletized bags. Avoid storage under pressure or at elevated temperatures to minimize particulate clustering. Do not store with alkalis, oxidizers or acids.

**SPEIFIC END USE(S):** NO additional information available

**REFERENCE TO OTHER SECTIONS:** Refer to Sections 8.

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## SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

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### Appropriate Engineering Controls:

Use local exhaust ventilation during processing. When transferring products, earth/ground all subsequent equipment to minimize charges that may develop.

### Personal protective equipment:

Gloves. Safety glasses. Protective clothing. Materials for protective clothing : Standard issue work clothes, which may include apron, antistatic safety shoes or boots as necessary.

### Eye protection:

Safety glasses with side-shields.

### Skin:

Cloth gloves. Use heat protective gloves when handling hot, molten product.

### Respiratory protection:

During handling: if dust is generated, a particulate pre-filter is recommended and for high airborne dust concentrations, a cartridge designed for nuisance dust is recommended. During high temperature processing: use local exhaust ventilation when available.



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## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

#### APPEARANCE

PHYSICAL STATE:	Solid
FORM:	Granules/pellets
COLOR:	Light yellow/white
ODOR:	Odorless
ODOR THRESHOLD:	Not determined.
PH:	No data available.
Relative evaporation rate (butyl acetate=1) :	Not applicable
Melting point:	Not determined
Freezing point:	Not determined
Boiling point:	Not applicable
Flash point:	Not applicable
Auto-ignition:	Not determined
Decomposition temperature:	Not determined
Flammability (solid, gas):	Not a Flammable Solid
Vapor pressure:	Not applicable
Relative vapor density at 20 °C :	Not applicable
Relative density:	Typically between 0.92 - 0.95 at 20°C
Vapor Density:	Not applicable
Solubility:	Insoluble in water.
Log Pow:	No data available
Partition Coefficient:	No data available
Viscosity, kinematic:	Not applicable
Viscosity, dynamic:	Not applicable
Explosive Properties:	No data available

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## SECTION 10 STABILITY AND REACTIVITY

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**10.1. Reactivity** Non-reactive.

**10.2. Chemical stability** Stable under ambient conditions.

### **10.3. Possibility of Hazardous Reactions**

Risk of self-heating and self-ignition under long term exposure to high temperatures: Refer to Section 7.2.

### **10.4. Conditions to Avoid**

Avoid prolonged exposure to heat or UV light since this may affect product properties. Product will burn when exposed to continuous sources of ignition.

### **10.5. Incompatible Materials**

Avoid contact with strong acids, alkalis and oxidizing agents.

### **10.6. Hazardous Decomposition Products**

Hazardous vapors from heated product are not expected to be generated under normal processing temperatures and conditions. No hazardous decomposition under ambient temperatures. Although highly dependent on temperature and environmental conditions, a variety of thermal decomposition products may be present if the product is over heated, is smoldering or catches fire. Typical decomposition products are ultimately oxides of carbon.



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## SECTION 11 TOXICOLOGICAL INFORMATION

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### 11.1. Information on toxicological effects

Information on Toxicological Effects Results

USP Systemic Toxicity Study in Mice – Extract:

No mortality or evidence of systemic toxicity from extracts.

USP Intracutaneous Study in Rabbits – Extract:

No evidence of significant irritation from the extracts injected intracutaneously

USP Muscle Implantation Study in Rabbits – 7 Day:

No evidence of irritation or toxicity in accordance with USP, General Chapter 88, Biological Reactivity Test. Macroscopic reactions insignificant.

Cytotoxicity Study using the Colony Assay in Chinese Hamster Lung Cells (V79):

Test article is not cytotoxic

In Vitro Hemolysis Study in Red Blood Cells, Japanese MHLW:

Test article is non-hemolytic

Skin corrosion/irritation:

Not classified

(No data available)

pH: Not Applicable (Insoluble)

Serious eye damage/irritation:

Not classified

(No data available)

pH: Not Applicable (Insoluble)

Respiratory or skin sensitization:

Not classified

(This product does not cause skin sensitization)

Germ Cell Mutagenicity:

Not classified

(Test extracts considered non-mutagenic)

Carcinogenicity:

Not classified

(No data available)

Reproductive Toxicity:

Not classified

(No data available)

Specific target organ toxicity (single exposure):

Not classified

(No data available)

Specific target organ toxicity (repeated exposure):

Not classified

(No data available)

Aspiration hazard:

Not classified

(Not possible due to product's physical form)

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## SECTION 12 ECOLOGICAL INFORMATION

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### 12.1. Toxicity

LC50 fish 1: &gt; 1000 ppm Acute 96-Hour Water Absorbing Fraction (WAF) performed on Rainbow Trout.

LOEC (chronic): No data available

### 12.2. Persistence and degradability

Persistence and degradability

Products are inert and non-biodegradable.

### 12.3. Bioaccumulative potential

Bioaccumulative potential

Not expected to bioaccumulate, since it is not soluble in water and not biodegradable.

### 12.4. Mobility in Soil

Ecology - soil

Not mobile. Remains on surface of soil



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**SECTION 13      DISPOSAL CONSIDERATIONS OF THIS PRODUCT**

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**13.1. Waste treatment methods**

Waste disposal recommendations:

Its size and quantity released may interfere with sewage treatment systems. Recover or recycle if possible. Incinerate or consult a licensed landfill provider. Remove all packaging for recycling or disposal based on local regulations.

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**SECTION 14      TRANSPORT INFORMATION**

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In accordance with DOT

Not regulated for transport

**Additional information**

Other Information:                      No supplementary information available.

Special transport precautions:      None.

**ADR**

No additional information available

**Transport by sea**

No additional information available

**Air transport**

No additional information available



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## **SECTION 15**      **REGULATION INFORMATION**

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### **15.1. US Federal regulations**

RQ (Reportable quantity, section 304 of EPA's List of Lists):	Not regulated
SARA Section 302 Threshold Planning Quantity (TPQ):	Not regulated
SARA Section 311/312 Hazard Classes:	Not regulated
SARA Section 313 - Emission Reporting:	Not regulated
Resource Conservation and Recovery Act - RCRA(40 CFR 261):	Not regulated
Emergency Planning and Community Right-to-Know Act(EPCRA):	Not regulated
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA/Superfund):	Not regulated

### **15.2. International regulations**

#### **CANADA**

WHMIS Classification      This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required  
This is NOT a WHMIS controlled product

#### **15.2.2. National regulations**

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on the Canadian DSL (Domestic Substances List)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on KECI (Korean Existing Chemicals Inventory)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on NECI (Taiwan National Existing Chemical Inventory)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **15.3. US State regulations**

Clean Air Act Section 111 Volatile Organic Compounds (VOC):	Not regulated.
Clean Air Act Section 112 Hazardous Air Pollutants (HAP):	Not regulated.

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## **SECTION 16**      **OTHER INFORMATION**

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<b>Revision Information:</b>	New MSDS
<b>Key literature references and sources for data:</b>	No data available
<b>Training information:</b>	No data available.
<b>Issue Date:</b>	15/12/2018

#### **SDS No:**

**Disclaimer:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

**PREPARED BY: TECHNOLOGY CENTER OF NINGBO JINHAİ CHENGUANG CHEMICAL CORPORATION.**