

ADD: TWENTY JIAZI TOWN CHAOYANG CITY LIAONING

PRO.,CHINA,

TEL&FAX: 86-421-8611088, E-mail:myhg2006@163.com

# **Material Safety Daty Sheet**

## 1. CHEMICAL PRODUCT AND SUPPLIER IDENTIFICATION

Product name:Insoluble Sulfur (Polymeric Sulfur)

Trade name: Tian qi

Rubber Vulcanizing Agent :IS-7020

Manufacturer: CHAOYANG MINGYU CHEMICAL INDUSTRY CO., LTD.

Factory add: Twenty jiazi Town, Chaoyang City, Liaoning Pro., China

Tel&Fax: 86-421-8611088

### 2.COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name:Polymeric Sulfur

CAS NO.:Polymeric Sulfur 9035-99-8,

Chemical description: Non-rised yellow powder

TSCA NO.:none
EINECS NO.:none
Other information:S8,Sx

### 3.HAZARDS IDENTIFICATION

Not classified as hazardous according to the EEC Dangerous Substance Directive and Dangerous Preparation Directive.

Dust suspended in air ignites easily.

Burning sulfur emits highly toxic gases.

#### 4.FIRST AID MEASURES

Symptoms and effects

- Dust may be irritating to the respiratory tract and cause symptoms of bronchitis.
- Ingestion: The produces characteristic stomach breah odour, nausea or vomiting
- Eye:Particulates of the material may cause mechanical irritation.
- Skin:In case of prolonged contact:Slight irritation.In case of repeated
- contact:Risk of dermatitis.

#### First aid

- General:In all cased of doubt,or when symptoms persist, seek medical attention.
- Inhalation:Move to fresh air.If symptoms persist, seek medical advice.
- Skin: Wash immediately with soap and water. Launder clothes before reuse.
- Eye:Rinse thoroughly with plenty If water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if irritation develops.
- Advice to physician

### 5.FIRE-FIGHTING MEASURES



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Extinguishing media:Large quantities of water, waterspray, water mist,foam,dry chemical powder,CO2,sand

Unsuitable extinguishing media: waterjet.

Special exposure hazards: Combustible powder.Dust explosion possible in the presence of air,Burns with nearly invisible flame.Emits toxic and corrosive fumes under fire conditions.

Hazardous decomposition/combustion products:Sulfur oxides(SOX):May cause delayed pulmonary oedema.

Protective equipment: Wear self contained breathing apparatus.

Other information

- Evacuate all non-essential personnel.
- Because of dangers of toxic effects, warm people to shelter indoors. Close doors and windows and stop ventilation.
- · Approach down wind.
- Avoid dispersing the dust into clouds when using extinquishing means.
- If safe to do so, remove the exposed containers, or cool with large quantities If water.
- Do not allow run-off from fire fighting to enter drains or water courses.
- Thoroughly clean equipment after use.

## 6.ACCIDENTAL RELEASE MEASURES

Personal precautions: For personal protection see Section 8.

Environmental precautions:

Avoid dispersing the dust into clouds.

Eliminate all sources of ignition, and do not generate flames or sparks.

Do not flush into public water courses. Avoid discharge into the environment.

Methods for cleaning up: Collent as much as possible in a clean container for (preferable) resue or disposal .Do not use hair-brooms and plastic-brooms. Rinse remnant with plenty of water.Refer to section 13 for disposal of spilled material.

### 7.HANDLING AND STORAGE

#### Handing

• Keep away from sources of ignition-No smoking! Use non-sparking handtools.

Avoid dispersing the dust into clouds.

• Carry out industrial operation in closed piping circuits and equipment.

Use electrically conductive materials for piping circuits and equipment. Avoid contact with eyes. Good industrial practice in housekeeping and personal hygiene should be followed.

### Fire and explosion prevention

- Dust/air mixtures may ignite violently upon exposure to sparks or sources of ignition.
- Dust exposion class(VDI 2263):St 1.
- Avoid dust accumulation. Avoid dispersing the dust into clouds.
- Eliminate all sources of ignition, and do not generate flames or sparks.



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- Prevent electrostatic discharges. Use grounded equipment. Totally or partially inert closed equipment to oxygen content below 7%.
- Minimize vertical drop distance in chutes and hoppers to prevent generation of dust clouds and static electrical charge.

#### Storage requirements

Store away from sources of heat and ignition. Store away from reactive products (refer to sec. 10). Keep the orininal package or container closed if not in use. Protect from direct sunlight. 12 months with the common storing condition. Recommend use of date is within 6 months. the reversion rate is less than 1% year when stored in closed containers below 20°C.

### 8.EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Engineering controls

- · Avoid dust generation
- Ensure good ventilation and local exhaustion of the working area.

#### **Exposure limits**

• No exposure limits have been established for this material The following data are applicable to the ingredient(s)listed below.

### Polymeric Sulfur

• OES-TWA 10.0 mg/m3(total inhalable dust))

#### Personal protection

### Respiratory

• Avoid breathing dust. In case of dust formation use dust mask. In case of decomposition. Face mask with type E-P2 cartridge.

#### Hand

• Wear suitable gloves.

### Eye

• Wear safely goggles.

### Skin and body

• Wear suitable protective clothing.

## 9.PHYSICAL AND CHEMICAL PROPERTIES

Appearance Non-rised yellow powder

Colour yellow

Odour —

Boiling point 444.6°C

Melting point 90-135°C

Flash point —

Flammability —



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Loss on drying%(Max): 0.50 Explosive properties >330℃ Auto ignition temperature Oxidizing properties Vapour pressure <0.01mBar(20°C)  $1.6-1.70 \text{kg/m}^3 (20^{\circ}\text{C})$ Specific gravity  $500-900 \text{ kg/m}^3$ Bulk density Solubility in water Insoluble in water Solubility in other solvents Partly soluble PH value Partition coefficient Residues(63um)%Max 0.5 Relative vapour density Viscosity

Explosion limits Lower Explosion Limit

**Upper Explosion Limit** 

Insoluble Sulfur Content %(On total S) 90 Element Sulfur content % min 80

### 10. STABILITY AND REACTIVITY

Stability

·Stable under recommended storage and handling conditions (see Section 7)

Conditions to avoid

·Heat, sources of heat, naked flames, sparks, direct sunlight

Materials to avoid

·oxidants,amines,sodas,

Hazardous decomposition products

·Sulfur oxides(SOX)

### 11. TOXICOLOGICAL INFORMATION

Name: Insoluble sulfur

Acute toxicity

·Oral LD50 rat:>2000mg/kg.
·Dermal LD50 rabbit:>2000mg/kg.
·Inhalation LD50 rat: >9.23mg/l

Irritation

·Skin rabbit:Non-irritating
·Eye rabbit:Non-irritating
·Respiratory rabbit:Non-irritating

·Sensitization Patch testing (Human experience):Not sensitizing.



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·Genotoxicity Not mutagenic(in vitro)

toxicological information Chronic toxicity:NOEL(No Observable Effect Other Level)(rat,oral):500mg/kg

### 12.ECOLOGICAL INFORMATION

Name: Insoluble sulfur

**Ecotoxicity** 

·Fish 96h-LC50(Danio rerio): 866mg/l

·Daphnia 24h-ECO(Daphnia magna) : >10.000mg/kg.

Bioaccumulation Assimilation and consumption in proteic synthesis

## 13. DISPOSAL CONSIDERATIONS

**Product** 

·Smallquantities: According to local regulations. (most probably controlled incineration). The incinerator must be equipped with a system for the neutralization of SOx..

·Large quantities: Consult Meyors Chemical for special advice.

Contaminated packaging

·According to local regulations.

### 14. TRANSPORT INFORMATION

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Air transport (ICAO-TI/IAT	A-DGR)
ICAO-TI/IATA-DGR class	
UN NO.	
Packing group	
Other information	Documentation justifying the non-dangerous goods properties is
available on request	

### 15.REGULATOTY INFORMATION

Chemical description Insoluble sulfur

Labelling according to EC directives

EC-number See Section 2

Classification based on Test
R(isk) phrase(s) none
S(afety)phrase(s) none

Wassergef.hrdungsklasse(WGK)1(VwVwS Anhang4,Nr.3)

### **16.OTHER INFORMATION**

This information only concerns the above mentioned product and does not need to be valid if used with other product(s)or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

Updated on Jan 1st2012