

## MATERIAL SAFETY DATA SHEET

### 1. Product Name and Company Information:

1.1 Product Name: POLYETHYLENE TEREPHTHALATE

PET RESIN YS-Y01

1.2 Manufacturer: Hainan Yisheng Petrochemical Co., Ltd.

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Post Code: 578101

Address: Binhai Rd, Yangpu economy development zone, Hainan, China.

### 2. Composition

Polymer by Purified Terephthalic Acid (PTA), Ethylene Glycol (EG), Purified Isophthalic Acid (IPA) through polymerization

CAS NUMBER: 25038-59-9

Molecular Formula:  $H(OCH_2CH_2OCOC_6H_4CO)_nOCH_2CH_2OH$

Application: Manufacturing bottles for carbonated soft drinks (CSD), fruit juice, and water and food oil.

### 3. Hazardous Identification

Molten material will produce thermal burns

Material can be burned

Powdered material may form explosive dust-air mixtures

### 4. First Aid

Eye contact

Any material that contacts the eye should be washed out immediately with water.

Get medical attention if symptoms persist.

Skin contact

If burned by contact with molten material, cool is as quickly as possible. Don't peel material from skin. Get medical attention as quickly as possible

Note to doctor: Burns should be treated the same way as scald. The material come off as healing occurs, therefore, immediate remove from the skin is not necessary.

Ingestion

Material is not expected to be absorbed by the Gastroenterologist tract. .

## 5. Fire Fighting Measures

### 5.1 Extinguishing Agent:

**Applicable:** water, dry powder extinguisher and CO<sub>2</sub> Extinguishing agent

**Not Applicable:** Cannot be extinguished by water when the fire is caused by short circuit

### 5.2 Special Firefighting Measures

Fire-man must wear self-containing breathing apparatus and fireproof clothes.

### 5.3 Special hazardous: none

## 6. Accidental Release Measure

Pay attention that material is flammable.

## 7. Packing, Storage and Handling

7.1 Packing: Packed by three layers packing. Inside packing is PE film bag. PP woven bag is in the middle and the outside packaging is PE.

7.2 Storage: In cool and ventilated warehouse. Storing Far from fire and heat sources. Prevent form direct sunshine.

7.3 handling: Careful loading and unloading. Prevent the bag from damage. Handling according to the warning identification

7.4 Personal Precautionary measure: none

7.5 Fire and explosion proof: isolation from oxidizing material.

## 8. Exposure Control and Personal Protection

8.1 Supplementary local air exhaust system, closed systems and respiratory protection should be needed in special circumstances such as poor ventilated spaces, mechanical generation of dusts, heating dryiny,etc.

### 8.2 Personal Protection Equipment:

**Respiratory Protection:** If engineering controls do not maintain airborne concentrations to an acceptable level, respirator mist be worn.

**Respirator type:** dust

**Eye protection:** According to industrial hyginene practice, try to minimize eye contact with material by wearing eye protecitng glasses.

**Skin protection:** When material is heated, wear gloves to prevent against thermal burns.

**Protection facilities:** eye washing facilities.

## 9. Physical and Chemical Properties

**Physical Form:** solid

**Color:** cream colored

**Odor:** no special odor

**Density:** 1.39g/cm<sup>3</sup>

**Melting Point:** 247°C-254°C

Boiling point: not applicable

Thermal decomposition: 415°C

Flammability Point: 450°C

Flammability Limits:LOI=21%-22%

Flaming Heat: No data. No significance for other items

#### 10.Stability and Reactivity:

Stability: stable

Hazardous Polymerization: will not occur

Burning decomposition material: It is possible to produce carbon monoxide and acetaldehyde and other hazardous organic material.

#### 11. Toxicological Information:

Ingestion: The polymer is composed of PTA and MEG. Normally no matter whether the monomer itself which composes polymer is toxic or none-toxic, the polymer is none-toxic material. But under certain circumstances, when the polymer which is composed of toxic monomer is degraded to monomer, it can be hazardous. The LD<sub>50</sub> (BALB/C and SD rats, eating) of PTA (PTA, CA 100-21-0) can be 15g/kg. It is amount to polymer 23.6/kg. The LD<sub>50</sub> (rats, eating) of MEG (EG CA 107-21-1) is around 9.0mL/kg. It is amount to polymer 24.8/kg. According to Dosage grading standard of acute toxicity from '*The method and Procedures for toxicological assessment on food safety*' (GB 15193.3- 94), it is actually non-toxic. However, if anyone intakes too much, it is probably lead to physical injury. Suggest avoiding it.

#### 12. Ecological Information

This material has not been tested for environmental effects.

#### 13. Disposal Consideration

Discharge, treatment or disposal must be subject to national,state or local laws and regulations.

#### 14. Transportation Information

It doesn't belong to dangerous category. No special requirement for transportation.

#### 15. Regulatory Information

Solid Waste Environmental Pollution Processing Regulation by 'The People's Republic of China'.

#### 16. Other Information

The data given here is based on the current knowledge and experience and believed to be correct.

However, the data given here is not all the time valid and correct on all the circumstances. The customers may make appropriate decisions independently based on the information sourced from other ways to guarantee the appropriate transportation, the safety of employees and protection of the environment.

The information given in the data-sheet describes only the safety request for our product and do not guarantee any product properties.