

## Safety Data Sheet

#### **SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

- 1.1 Product Identifier
  - Substance Name: Taisox Ethylene Vinyl Acetate Copolymer

7670S, 7760S, 7870S

- · Other Names: Taisox EVA Solar Film Grade Polymer
- · Recommended Uses: As a raw material for solar cell encapsulant film.
- 1.2 Supplier Information
  - Manufacturer Name: Formosa Plastics Corporation, Polyolefin Division
     Mailiao Plant: No.1, Formosa Industrial Complex, Mailiao, Yunlin County, Taiwan, R.O.C.
  - · Telephone Number: +886-5-681-1180(Mailiao Plant)
- 1.3 Emergency Contact: Telephone Number: (TEL) +886-5-681-1180, (Fax) +886-5-681-1122

#### **SECTION 2: HAZARD INDICATION**

- 2.1 Chemical Hazard Classification: None
- 2.2 Label Element: None
- 2.3 Other Hazards:
  - Inhalation: If heated to more than 300°C, the product may form vapors or fumes which could cause irritation of the respiratory tract, coughing, and shortness of breath.
  - · Skin Contact: Heated material can cause thermal burns.
  - Eye Contact: Heated material can cause thermal burns. When heated to decomposition, it emits acrid smoke and irritating fumes.
  - · Ingestion: No significant health hazards identified.

#### **SECTION 3: COMPOSITION**

#### Pure Substance:

- 3.1 Technical Name: Ethylene Vinyl Acetate Copolymer
- 3.2 Similar Name: EVA
- 3.3 Chemical Abstracts Number (CAS No.): 24937-78-8
- 3.4 Ingredient Percent(%): 100% EVA
- 3.5 Dangerous Components: None

## Mixtures:

3.6 Chemical Properties:	
Names of Hazardous Ingredients	Concentration or Concentration Ranges(Ingredient Percentage)
None	None

1/6



#### **SECTION 4: FIRST AID MEASURES**

- 4.1 First Aid Measures for Different Routes of Exposure:
  - · Inhalation: Move to fresh air, and seek medical attention if difficulty breathing persists.
  - Skin Contact: After being touched by molten plastic, it must be cooled immediately with plenty of water, and treated according to the clinical method of burns.
  - · Eye Contact: Rinse with plenty of water.
  - Ingestion: A small amount of accidental ingestion is basically harmless; a large amount of accidental ingestion is recommended to seek medical attention and take it out.
- 4.2 Most Important Symptoms and Effects, Both Acute and Delayed: None
- 4.3 Self-protection of the First Aiders: Keep ventilation and prevent burns during first aid.
- 4.4 Notes for the Physicians: None

#### **SECTION 5: FIRE FIGHTING MEASURES**

- 5.1 Suitable Extinguishing Media: Water, carbon dioxide, foam or dry extinguishers
- 5.2 Special Hazards That May Be Encountered During Fire Fighting: Irritating gas or dense smoke
- 5.3 Special Fire Extinguishing Procedures: According to the standard procedures for general fires, that is, the Class A fires.
- 5.4 Special Protective Equipment for Firefighters: Wear appropriate protective equipment and protective clothing.

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### 6.1 Personal Precautions:

- · Wear appropriate personal protective equipment during all clean-up activities.
- · Avoid inhalation of fumes and direct contact the spills.
- · Avoid walking on floors with scattered plastic particles to avoid slipping.

#### 6.2 Environmental Precautions:

- Ensure ventilation, and keep spilled material away from heat, sparks and open flames.
- Do not flush plastic pellets into drains or sewers to avoid affecting the environment.
- 6.3 Methods for Clean-up: Clean-up with general cleaning tools, and put waste in an appropriate container for disposal.



## **SECTION 7: HANDLING AND STORAGE**

### 7.1 Handling:

- During the processing of the material, avoid inhalation of fumes, or powders, by providing good ventilation of the workplace.
- Depends on the needs, the fumes and dusts generated by the processing can be trapped and remove by an effective way.
- Traces of aldehydes or ketones which may arise during the processing, but the amount will remain under the TLV-TWA value.
- · Avoid dispersion of dust in air to reduce potential for ignition or explosions.

#### 7.2 Storage:

- · Store in well-ventilated, cool and dry places and avoid direct sunlight.
- · Pay attention to the stacking situation to avoid material dumping.
- · Keep away from heat, ignition sources, combustibles and incompatible materials.
- The equipment must be grounded to prevent the accumulation of static electricity.

#### **SECTION 8: EXPOSURE CONTROL AND PERSONAL PROTECTION**

### 8.1 Engineering Control: Avoid contact with hot molten material.

## 8.2 Control Parameters:

- Eight-hour Daily Average Allowable Concentration/Short-time Average Allowable Concentration/Maximum Allowable Concentration: None
- · Biological Standards: None

#### 8.3 Personal Protective Equipment:

- Respiratory Protection: Not required in normal use of product. If dusty conditions exist, it's recommended to use NIOSH approved dust mask.
- · Hand Protection: Heat-resistant gloves
- · Eye Protection: Safety glasses
- Skin and Body Protection: For high temperature processing, wear appropriate clothing if necessary to avoid burns.

#### 8.4 Hygiene Procedures:

- Minimize contact with skin and wash hands thoroughly after handling, especially before eating, drinking, smoking, chewing, or using restroom facility.
- · Do not eat, drink, or smoke in work area.



## **SECTION 9: Physical and Chemical Properties/ Characteristics**

Appearance: Translucent solid	Odor: Slight ester odor
Odor Threshold: N/A	Melting Point/ Freezing Point: 65-80°C
pH Value: N/A	Boiling Point/ Boiling Range: N/A
Flammability: N/A	Flash Point: > 260°C (> 500°F)
Decomposition Temperature: >350°C	Test Method: □ Open Cup ■Close Cup
Auto-ignition Temperature: ca.300°C	Exposure Limits: N/A
Vapor Pressure: N/A (Below) mmHg@20°C	Vapor Density: N/A (Air=1.0)
Specific Gravity: 0.940-0.953 g/cm <sup>3</sup>	Solubility in Water: Insoluble
n-Octanol/Water Partition Coefficient: N/A	Volatility: N/A

### **SECTION 10: STABILITY AND REACTIVITY**

- 10.1 Stability: Stable and inner at ordinary temperature.
- 10.2 Possible Hazardous Reactions Under Special Conditions: It will start to decompose and produce smoke at high temperature.
- 10.3 Condition to Avoid: Avoid exposure to environments over 200°C to avoid material cracking.
- 10.4 Substances to Avoid: None
- 10.5 Hazardous Decomposition Products: Burning can produce carbon monoxide, carbon dioxide, acetate acid, vinyl acetate and other organic vapors.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

- 11.1 Routes of Exposure: None
- 11.2 Symptoms: None
- 11.3 Acute Toxicity: None
- 11.4 Chronic Toxicity or Long-term Toxicity: None

#### **SECTION 12: ECOLOGICAL INFORMATION**

- 12.1 Eco Toxicity: Not biodegradable, but can be recycled by using suitable technologies.
- 12.2 Persistence and Degradability: Very slowly degradation by solar UV irradiation.
- 12.3 Bio Accumulative Potential: None
- 12.4 Mobility in Soil: None
- 12.5 Other Adverse Effects: None



## **SECTION 13: DISPOSAL INFORMATION**

- 13.1 Methods of Waste Disposal: It must be done in accordance with existing regulations.
  - In general situation, it can be disposed by landfill or incineration.
  - It can also be recycled by melting and pelletizing.

## **SECTION 14: Transport Information**

- 14.1 United Nations Number(UN No.): None
- 14.2 UN Shipping Name: None
- 14.3 Transport Hazard Class(es): None
- 14.4 Packing Group: Bag or bulk bag
- 14.5 Marine Pollutant(Yes/No): No
- 14.6 Specific Transport Measures and Precautionary Conditions: Non-dangerous goods

## **SECTION 15: Regulation Information**

## 15.1 Applicable regulations:

- · USA-TSCA
- · Canada-DSL
- Europe-EINECS are exempt from the listings, all monomers are listed.
- · Australia-AICS
- · Korea-ECL
- · Philippines-PICCS
- · China-Inventory of Existing Chemical Substances



### **SECTION 16: Other Information**

## 16.1 Inspection Reports:

- Relevant Regulations on Food Contact Materials: The product is untested, it's not recommended to use for food contact.
- · Other Related Regulations:
  - ☑ EN 71-3
  - ☑ REACH SVHCs [the latest list of restricted substances]
  - ☑ RoHS 2011/65/EU Annex II and its amendment Directive (EU)2015/863[10 substances]

#### 16.2 Declarations:

- · All the Products Are Free of:
  - ☑ Halogens
  - ☑ 15 Polycyclic Aromatic Hydrocarbons [PAHs]
  - ☑ TSCA [5 PBTs]
  - ☑ REACH Annex XIV or Annex XVII
  - ☑ Per and Polyfluoroalkyl Substances [PFAS]
  - ☑ Ozone Depleting Substances [ODS]
  - ☑ Conflict Minerals
  - ☑ Bisphenol A
- · All the Products Qualify:
  - ☑ California Proposition 65

## 16.3 Visit the FPC website-download and search Taisox Product Declaration List for more details.

Organization That Prepared the SDS	Name: Technical Dept., Polyolefin Division, Formosa Plastics Corporation	
	Address:	
	No.1, Formosa Industrial Complex, Mailiao, Yunlin County, Taiwan, R.O.C.	
SDS Prepared By	Liao Tzu-Yu (R&D Engineer)	
Contact Person	Lin Kuei-Pin (R&D Senior Engineer)/E-mail: viplin@fpc.com.tw	
Date That the SDS	April 19, 2023	
Was Prepared		