

## Safety Data Sheet & Technical Data Sheet (MSDS+TDS) for Black EVA Foam

### Section 1: Product and Company Identification

**Product Name:** Black EVA (Ethylene-Vinyl Acetate) Foam

**Product Form:** Sheet/Foam

### Section 2: Composition/Information on Ingredients

Component (English Name)	Concentration (%)	CAS No.
Polyethylene	75.99%	9002-88-4
Carbon Black	11%	1333-86-4
Calcium Carbonate	10%	471-34-1
Zinc Oxide	1%	1314-13-2
Stearic Acid	1.5%	57-11-4
Dicumyl Peroxide	0.5%	80-43-3*
Azodicarbonamide	0.01%	123-77-3

### Section 3: Physical and Chemical Properties

**Appearance / Form:** Black, sheet solid (foam).

**Odor:** Slight plastic odor.

**Water Absorption:** < 0.005 g/cm<sup>2</sup>.

**Thermal Stability:**

Softening begins at approximately 65°C.

Melting/shrinkage begins at approximately 90°C.

Aging (oxidation leading to powdering) begins after approximately 5 years at ambient temperature. Service life reduces to approximately 3 years if continuously used above 40°C.

### Section 4: Technical Performance Data

#### 1. Apparent Density (Test Method: GB/T 6343-2009)

Hardness (Shore C)	Apparent Density
25°	77.6 kg/m <sup>3</sup>

Hardness (Shore C)	Apparent Density
38°	75.2 kg/m <sup>3</sup>
45°	115.3 kg/m <sup>3</sup>
60°	164.6 kg/m <sup>3</sup>
70°	207.0 kg/m <sup>3</sup>
80°	272.6 kg/m <sup>3</sup>

## 2. Tensile Properties (Test Method: GB/T 10654-2001)

Hardness (Shore C)	Tensile Strength	Elongation at Break
25°	1.00 MPa	130%
38°	1.56 MPa	120%
45°	1.66 MPa	120%
60°	2.13 MPa	130%
70°	3.08 MPa	160%
80°	3.40 MPa	170%

## 3. Compression Set (Test Method: GB/T 10653-2001)

Hardness (Shore C)	Test Condition (Temp., Compression, Time)	Compression Set Result
25°	23±2°C, 50%, 72H	35%
38°	23±2°C, 50%, 72H	32%
45°	23±2°C, 50%, 72H	26%
60°	23±2°C, 50%, 72H	16%
70°	23±2°C, 50%, 72H	11%
80°	23±2°C, 50%, 72H	11%
38°	85°C, 50%, 72H	51%
60°	85°C, 50%, 72H	48%

## Section 5: Hazards Identification

**Hazard Classification:** Flammable Solid.

**Stability:** Stable under normal ambient conditions.

**Hazardous Decomposition Products:** No hazardous decomposition under normal conditions of use. Carbon oxides may form if involved in a fire.

**Health Hazards:** No significant health hazards expected under normal conditions of use and handling.

**Environmental Hazards:** None identified.

### **Section 6: First-Aid Measures**

**Skin Contact (Molten Material):** Immediately cool affected area with plenty of cold water for at least 10 minutes. Seek medical attention.

**Eye Contact:** Immediately flush eyes with plenty of clean, gently running water for at least 10 minutes, holding eyelids open. Seek medical attention.

**Ingestion:** Do NOT induce vomiting. Seek immediate medical advice.

### **Section 7: Fire-fighting Measures**

**Suitable Extinguishing Media:** Water spray, foam, dry chemical powder, carbon dioxide, sand.

**Specific Hazards:** Combustible. Keep away from open flames and ignition sources.

**Protective Equipment for Firefighters:** Firefighters should wear self-contained breathing apparatus and full protective clothing.

### **Section 8: Handling and Storage**

**Handling Precautions:** Keep away from heat, sparks, and open flame. Avoid contact with strong oxidizers and chemicals. Ensure good ventilation.

**Storage Conditions:** Store in a cool, dry, and well-ventilated place away from direct sunlight, heat sources, and open flames. Separate from oxidizers and other chemicals. Shelf life under proper storage conditions is up to 10 years.

### **Section 9: Exposure Controls/Personal Protection**

**General Ventilation:** Adequate for normal handling.

#### **Personal Protective Equipment (PPE):**

**Respiratory Protection:** Not normally required.

**Eye Protection:** Safety glasses are recommended.

**Skin Protection:** Gloves are recommended for handling raw sheets to prevent minor abrasions.

#### **Section 10: Disposal Considerations**

Dispose of in accordance with all applicable local, regional, and national regulations. Consider recycling. Incineration or landfilling should be performed by licensed waste management operators.

#### **Section 11: Transport Information**

Transport as general cargo. Protect from high temperatures during transportation. Do not transport with oxidizing agents or other chemicals. Ensure packages are sealed (e.g., in rolls within bags or sheets within bags).

#### **Section 12: Regulatory Information**

This product is not classified as hazardous for transport under international regulations (e.g., IMDG, IATA, ADR). It is the responsibility of the shipper to ensure compliance with all applicable regulations.

#### **Section 13: Applications**

Used as a material or component in toys, footwear, bags & luggage, electronics & appliances, packaging, crafts, screen printing, and protective gear for sports equipment.