

# MATERIAL SAFETY DATA SHEET

## SECTION 1: PRODUCT IDENTIFICATION

1. Name of Product: Attic Tent
2. Main Materials: Nylon Fabric and Polyurethane Foam (Fire Retardant)

## SECTION 2: COMPOSITION, INFORMATION ON INGREDIENTS

1. Nylon
  - a. Synthetic Graphite Fibrils mixed with Polyamide 6
  - b. Color Dyestuffs: Yellow(2G), Red(RN), Blue(GR) in Weak Acid
  - c. Polyurethane Coating
2. Polyurethane Foam
  - a. PPG (Polypropyle
  - b. TDI (Tolylene Diisocyanate)
  - c. Catalytic Agents
    - a) Octanoic Acid
    - b) Triglyme (Triethylene Glycol Dimethyl Ether)
  - d. Stabilizer: Silicone Oil
  - e. Heat Promoter in Sealing: Dichloromethane

## Section 3: HAZARDS IDENTIFICARION

1. Not hazardous at normal condition.
2. Hazardous Reactivity
  - a. Conditions to Avoid: Excessive heating and contact with incompatible materials.
  - b. Materials to Avoid: Strong acids and oxidizing agents.
  - c. Hazardous Combustion and Decomposition Products: Ammonia, carbon monoxide, aldehyd and small amount of hydrogen cyanide.
3. Health Hazard Information, in case of the product being involved in fire.
  - a. Acute Effects of Exposure of Nylon Ingredients
    - a) Ingestion: Not a probable route of exposure.
    - b) Inhalation: Very low toxicity. Granules not respirable.
    - c) Skin Contact: Molten polymer causes thermal burns.
    - d) Eye Contact: Mechanical irritation.
    - e) Chronic Effects of Exposure: No chronic effects known.
  - b. Toxicity of Dichloromethane in Polyurethane Foam
    - a) Dichloromethane is clarified as only slightly toxic by the oral and inhalation routes.
    - b) Exposure to high concentrations of dichloromethane vapor (>500 ppm for 8 hour) may lea lightheadedness, fatigue, weakness, and nauses.
    - c) Contact of the compound with the eyes causes painful irritation and can lead to conjunctiv and corneal injury if not promptly removed by washing.
    - d) Dichloromethane is a mild skin irritant, and upon prolonged contact (e.g., under the cover clothing or shoes) can cause burns after 30 to 60 min exposure.
    - e) Dichloromethane is not teratogenic at levels up to 4500 ppm or embryotoxic in rats and mi at levels up to 1250 ppm.

## SECTION 4: FIRST AID MEASURES in case of contacts at fire

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1. Eye Contact: Immediately flush eyes with copious amounts of water or eyewash solution for at least 15 minutes; lift eyelids occasionally. If irritation persists, consult physician.
2. Skin Contact: Immediately remove contaminated clothing and shoes, then wash skin with soap and copious amounts of water. If irritation persists, consult physician.
3. Inhalation: Remove to fresh air. If not breathing, give artificial respiration and keep person warm at rest. If breathing is difficult, give oxygen; consult physician.
4. Ingestion: Wash out mouth with water provided person is conscious; consult physician.
5. Wash contaminated clothing before reuse.

\*\*\*Note to Physician: Treatment based on physician judgement in response to reaction of the patient

## SECTION 5: FIRE FIGHTING MEASURES

1. Extinguishing Media: Water spray, carbon dioxide, dry chemical powder, or appropriate foam.
2. Special or Standard Fire Fighting Procedures: N/A

## SECTION 6: ACCIDENTAL RELEASE MEASURES

1. Eliminate all sources of ignition and carefully transfer, submit or retain the burnt stuff for disposal.
2. Waste Disposal Method: Incineration or landfill in compliance with federal, state, and local regulations.

## SECTION 7: HANDLING AND STORAGE

1. Protect the product from over heat, sparks, flames, or static electricity.
2. Turn off sources of ignition.
3. Since the vapors of the product are heavier than air, the storage area must be kept ventilated.
4. Keep in cool, dry place before using it, preventing moisture absorption and contamination.

## SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

1. Exposure Controls: N/A, as the exposure of the product is not hazardous at normal conditions.
2. Personal Protection: The following facilities are required in case of emergency fire.
  - a. Chemical safety eyewear.
  - b. Compatible chemical-resistant gloves when polymer is hot.
  - c. Respirator with appropriate protections to prevent potential inhalation irritation.
  - d. Safety shower and eyewash.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

1. All Material has been fire treated with a chlorine base fire retardant
2. Chemical Family:
  - a. Nylon Fabric:
    - Carbon/Polyamide Mixture
  - b. PU Foam:
    - a) PPG (Polypropylene Glycol)
    - b) TDI (Toluene Diisocyanate)
    - c) Triglyme (Triethylene Glycol Dimethyl Ether)

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d) Dichloromethane

## 3. Physical Data

### a. Nylon

Melting Point: 208 - 215°C  
Flash Ignition Temp: 400°C  
Boiling Point: GF: 8687°F, 4827°C  
Solubility: Slightly soluble in boiling water.  
Specific Gravity: (Water = 1): GF: 1.9 - 2.25, PA: 1.13  
Vapor Pressure (mm Hg) at 20°C: N/A  
Percent Volatile by Volume (%): <0.1%

### b. PU Foam

Boiling Point: 42°C  
Flash Point: 156°F, 104°C (Estimated)  
Flammable Limits in air % by Volume:  
LEL Lower 1.8%, UEL Upper 10% (Estimated)  
Solubility in Water: N/A  
Vapor Pressure: 86.9 psig at 70°F  
Vapor Density (AIR = 1): Heavier than Air  
Specific Gravity (H2O = 1): 1.01 g/ml at 25°C

## SECTION 10: STABILITY AND REACTIVITY

### 1. Stability

Nylon: Stable

PU Foam: Stable under normal conditions. Cured foam will deteriorate when exposed to UV lig

### 2. Incompatibility

Nylon: Will dissolve in strong acids.

PU Foam: Acids, water, alcohols, strong bases, amines, ammonia, finely powdered metal such aluminum, magnesium or zinc, and strong oxidizers.

### 3. Hazardous Polymerization

Nylon: Will not occur.

PU Foam: a. Contamination with water may form CO2.

b. Avoid high heat, i.e., flames, extremely hot metal surfaces, heating elements etc

c. Do not store in auto or direct sunlight.

## REMARKS:

The chemical, physical, and toxicological properties of product shown in this sheet have not been thoroughly investigated, though it is believed to the best of our knowledge that the information is correct. Therefore, adjustment to conform with the actual conditions of usage may be required.

The original compounds of the materials used for the product are in low acute toxicity and there is no toxic hazard on the product at normal conditions. However, measures for first aid, fire fighting and accidental release mentioned in SECTION 3, 4, 5, & 6 are strongly recommended to be taken in case of fire.

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