

SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name: Flexible Polyurethane Foam
C.A.S. Number: 9009-54-5
Other Names: Polyether-urethane foam
Urethane polymer consisting of repeating units of carbon, hydrogen, oxygen and. Nitrogen.

Manufacturer's Codes:

AA15-60, AA16-110, AA19-130, AA20-100, AA21-300, AA23-130, AA23-200, AA31-320, AA29-400, DF-15, DF-19, DF-22, RB16-110, RB19-130, RB20-100, RB24-160, RB27-170
AS25-80, FP15-90, FP23-130, FP24-160, FP27-200, FP30-110, FP30-140, FP33-200, FP35-110, FP35-130, HS18-35, SS18-100, UG-600
MA24-120, MA24-160, MA25-60, MA25-80, MA26-160, MA28-80, MA27-200, MA27-280, MA29-200, MA30-60, MA30-80, MA30-100, MA30-120, MA31-320, MA32-180, MA35-140, MA35-600
LR38-40, LR48-90, LR60-55, VF52-40, VF52-60, VF60-90
OP30-30, OP35-110, OP50-120, ST30-110, ST30-130, ST30-150, ST35-230
EN-Support/Soft, EN-Support/Medium , EN-Support/Firm

2. HAZARDS IDENTIFICATION

U.N. Number: None
Dangerous Goods Class and Subsidiary: None
Risk:
Hazchem Code: None
Poisons Schedule: None

3. PHYSICAL / CHEMICAL CHARACTERISTICS

Polymer product from reaction of toluene diisocyanate, water and polyalkoxy polyether polyol. May contain small amounts of styrene acrylonitrile polymer, inorganic fillers and antimicrobial agent.

Main Uses: Upholstery, bedding, packaging, and carpet underlay

Physical Description / Properties

Appearance: Flexible solid with cellular structure, white to off-white natural colour or other colour (Shade will change on exposure to light & air).
Boiling Point: Not applicable.
Melting / thermal decomposition range: above 200°C
Vapour pressure / vapour density: None

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Boiling Point:	Not applicable.
Melting/thermal decomposition range:	above 200°C
Vapour pressure:	None
Percent volatiles:	None
Specific gravity:	Various; apparent density of 15 to 100 kg/m ³

4. FIRE AND EXPLOSION HAZARD DATA

Flash point:	Decomposition products flash above 250°C
Flammability limits:	None established; Material can be ignited by an open flame or by a source of smouldering ignition.
Auto ignition temperature:	Above 260°C short term. Avoid long term exposure over 135°C. If ignited, the material may melt, producing flammable liquids. Burning produces toxic gases, such as carbon monoxide, oxides of nitrogen and hydrogen cyanide and intense heat and dense smoke.
Extinguishing media:	Dry chemical, water spray, carbon dioxide.
Special Fire Fighting Procedures:	WEAR SELF- CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING, INCLUDING BOOTS.
Unusual Fire Hazards:	

WARNING!

DO NOT expose polyurethane foam to welding, smoking materials, Naked lights, open flames, space heaters, burning operations of any kind, other ignition sources or other sufficiently intense causes of heat or flames.

If ignited, foam can produce rapid flame spread, Intense heat and dense black smoke and toxic gases. Material can melt into a burning liquid that can drip and flow.

Like other organic materials, once ignited polyurethane foams will burn rapidly, releasing great heat, toxic gases, and consuming Oxygen at a high rate. In an enclosed space the resulting deficiency of oxygen will present a danger of suffocation to the occupants.

Toxic gases and smoke released by the burning foam can be Incapacitating or fatal to human beings if inhaled in sufficient quantities. Note: fire retardant foams may only smoulder and melt but release the same toxic gases.

Follow procedures outlined by insurance carrier, fire codes and all other applicable code requirements.
Store or use in ESFR sprinkled area away from all heat and open flame.

5. REACTIVITY DATA

Stability	Stable (X) Unstable ()
Conditions to Avoid	OPEN FLAME AND OTHER HEAT SOURCES
Incompatibility (Materials to Avoid)	Decomposed by strong acids or alkalis.
Hazardous decomposition or by-products:	BURNING OR ELEVATED TEMPERATURE WILL PRODUCE TOXIC GASES AND DENSE SMOKE - Refer to <u>WARNING</u> in Section 4
Hazardous Polymerization	May Occur () Will Not Occur (X)

6. HEALTH HAZARD DATA

Route(s) of Entry: Inhalation: NO ; Skin: NO ; Ingestion: NO

Health Hazards (Acute and Chronic):

None expected in normal, ambient temperature use, low oral or dermal toxicity; inhalation of foam dust may be harmful temperatures over 200°C may produce irritating or toxic fumes.

Ventilation: None required under normal conditions. Ventilation required where material is processed with flame or hot cutting wires.

Carcinogenicity: NTP: NO ; IARC Monographs; NO ; OSHA Regulated: NO

General Conditions Generally Aggravated by Exposure: NONE KNOWN.

Personal protection:

Respiratory Protection: None required unless fumes or dust is involved.

Protective Gloves: None required.

Eye Protection: As appropriate around moving machine parts during fabrication or if dust protection required.

Emergency and First Aid Procedures:

IF OVER EXPOSED TO FUMES OR SMOKE, REMOVE VICTIM TO FRESH AIR AND CONSULT PHYSICIAN.

IN CASE OF EYE IRRITATION, FLUSH WELL WITH COPIOUS AMOUNTS OF WATER & CONSULT WITH A PHYSICIAN.

7. PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken In Case Material is Released or Spilled: NONE REQUIRED

Waste Disposal Method: RECYCLE TO CARPET UNDERLAY OR APPROVED LANDFILL.

Precautions to be taken in Handling and Storing:

- Refer to WARNING in Section 4.

Other Procedures: FOLLOW GOOD HOUSEKEEPING PRACTICES.

Safe Handling and Storage: Warehousing of bun stock, sheets, rolls and fabricated items should be stored under a fusible sprinkler system with a minimum of six feet clearance between stacks of foam and the sprinkler heads.

Do not store foam near any ignition sources such as exposed electrical or gas heating elements, open flames and exposed lights. Do not smoke in foam storage areas.

Do not allow foam scrap and cuttings to accumulate and maintain clear aisles with adequate access to all storage areas and exits.

Other Precautions: Notify local fire companies of presence of large quantities of foam.

8. CONTROL MEASURES

Respiratory Protection :

FOR DUST OR FUMES FROM HOT PROCESSING: Use proper approved respiratory equipment designed for organic vapours and isocyanates.

Ventilation: Local exhaust ventilation is recommended for those processing procedures that may generate foam dust and decomposition products. Examples of these processes include sawing, grinding, buffing and flame lamination, hot wire cutting, heat sealing and hot stamping.

Other Protective Clothing or Equipment:

Use dust collecting equipment where dust is generated.

Eye Protection: Wear eye protection if dust generated, as dust may cause mechanical irritation of eyes.

Protective Gloves: N/A

Work / Hygienic Practices: Mechanical ventilation and PPE as above.

9. USER RESPONSIBILITY

An MSDS such as this cannot be expected to cover all possible individual situations. The user has the responsibility to provide a safe workplace and a safe place of business.

All aspects of an individual operation should be examined to determine if, or where precautions -- in addition to those described herein -- are required.

Any health hazard information contained herein should be passed on to your employees in accordance with OSHA requirements.

The information supplied herein is presented in good faith and believed to be accurate to the best of current knowledge and belief, but is not guaranteed to be so. It is also predicated on normal use of the product. However, since conditions of use are beyond our control, Dunlop Foams assumes no legal responsibility for use or reliance upon the above data.

Other Information:

Refer to the Plastics Industry Association publication:
"Flexible Polyurethane Foams - Its Uses and Misuses".

Contact Point: Technical Services Manager, Deer Park Tel: 1300 55 22 00

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