



PRODUCT INFORMATION SHEET

IMPORTANT INFORMATION: Flexible polyurethane foam is an "article", not a chemical, as defined in 29 CFR 1910.1200(c). It does not require a Material Safety Data Sheet under OSHA's Hazard Communication Standard. As a service to our customers, however, Carpenter Co. has produced this Product Information Sheet.

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SECTION I – PRODUCT IDENTIFICATION

Product Name: Flexible polyurethane foam

Other Names: FPF, prime foam, bonded foam, densified foam, FR foam, HR foam, foam, and viscoelastic foam.

SECTION II – PHYSICAL AND CHEMICAL CHARACTERISTICS

Since flexible polyurethane foam is a solid, physical characteristics such as boiling point, vapor pressure, vapor density evaporation rate, etc., do not apply.

Appearance: Cellular flexible material, white to off-white in color. May also be in various colors.

Density: 1-10 lbs per cu. ft.

Solubility in Water: Insoluble

Stability and Reactivity:

- Stable. No hazardous polymerization will occur in normal use
- Prolonged exposure to temperatures in excess of 240°F may cause some loss of volatile components (e.g., flame retardants) through evaporation.
- Unprotected foam will discolor in the presence of UV light with little effect on physical properties.
- Solvent resistance will vary with solvent type.

SECTION III – FIRE HAZARD INFORMATION

Auto-ignition Point: In excess of 600°F (ASTM D 1929)

Fire Hazard:

- **WARNING:** Urethane foam will burn if exposed to an open flame or other sufficient heat source. Do not expose urethane foam to open flames or any other direct or indirect high temperature ignition sources such as burning operations, welding, space heaters or naked lights

Once ignited, urethane foam will burn rapidly, releasing great heat 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. Hazardous gases released by the burning foam can be incapacitating or fatal to human beings if inhaled in sufficient quantities.

Once ignited, urethane foam is difficult to extinguish. Foam fires that appear to be extinguished may smolder and re-ignite. Always have fire officials determine whether a fire has been extinguished.

- Piles of foam dust can be readily ignited and presents a potential fire hazard. High concentrations of foam dust in the air can be a potential explosion hazard if exposed to flame, sparks, or other ignition sources.

Extinguishing Media: Water, dry chemical, carbon dioxide

Fire-fighting Protection: Fire-fighting personnel must be equipped with self-contained breathing apparatus (SCBA) and fire-fighting clothing.

SECTION IV – HEALTH HAZARDS

Exposure Limits: None established

- Acute Toxicity:**
- LD50 (oral): >5000 mg/kg (rat)
 - LD50 (dermal) No data available
 - LC50 (inhalation): No data available

Note:

- Foam is not known to be a skin irritant.
- Foam dust can cause eye irritation.
- Foam dust generated from such operations as continuous grinding or buffing can create nuisance particulates, which can cause irritation to the respiratory tract or even lung infection, airway obstruction and fibrosis. OSHA has established PEL values of 15 mg/m³ for total dust and 5 mg/m³ of respirable dust (8-hour TWA) for such particulates.

SECTION V – HANDLING AND STORAGE

- Keep foam away from sparks, naked lights, open flames, exposed electrical elements, or other ignition sources. Smoking should be forbidden in areas where material is stored or processed.

- Maintain adequate sprinkler protection where large volumes of foam are kept (e.g., warehouses, fabrication areas and storage rooms). Check for compliance with insurance regulations, local building codes or other legal requirements.
- Never use foam as an exposed interior wall or ceiling finish.
- Maintain sufficient aisle space to permit access for fire-fighting equipment and personnel to all foam storage areas.
- Do not allow cuttings or foam scrap to accumulate.
- Be aware that terms sometimes used to describe polyurethane foam, like “fire retardant” and “flame resistant”, do not mean fire safety under all conditions. Flammability ratings from small-scale laboratory tests are not to be taken as an indication of the material’s behavior under actual fire conditions.

SECTION VI – PERSONAL PROTECTION AND EXPOSURE CONTROLS

Protective Equipment: Unless exposure to foam dust is anticipated, dust masks, goggles, and gloves are not required. Long sleeves are recommended if arms are repeatedly rubbed against foam.

Ventilation: Mechanical ventilation should be considered in operations that generate abnormal quantities of foam dust, or where thermal decomposition of the foam occurs (e.g., hot-wire cutting, heat sealing, hot stamping and flame laminating).

<h2>SECTION VII – EMERGENCY AND FIRST AID PROCEDURES</h2>

Skin: Wash off any foam dust.

Eyes: Flush thoroughly with water.

Ingestion: None necessary.

Inhalation: Consult physician if coughing, discomfort, or obstruction of air passage occurs.

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