



MATERIAL SAFETY DATA SHEET

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I. PRODUCT INFORMATION

Chemical Family: ***Flexible Polyurethane Foam***

Product Name:	
SIF, SIF II, SIF-G, SIF-FR	Hydrathane
Protectair, Protectair-G	Customfit (all grades)
Custom, Custom FR	Industrial Premium
Ether Foams	Industrial Standard
Ester Foams	CX Foam
Pyrell (all grades)	LP Ethers
Safety Foam, Types I-VII	Anti-Static Foams
SIF Felt, SIF-FR Felt	Low Perm Foams
Aresto, Aresto II	Isoseal
LP-1A, Luxell	Aquazone
Acquell	Nexol
Custom II	Reflex
Hyfonic, Aerofonic	Clickable
Customfelt	Acoustical
Double Cell Foams	DRI-FAST
Aesthetic, FR, UL	DRI-CORE
Ultrafine	

II. HAZARDOUS INGREDIENTS

	<u>CAS#</u>	<u>% by Weight</u>	<u>OSHA PEL/ ACGIH TLV</u>
Polyurethane Foam	9009-54-5	100%	None Established

Polyurethane foam is a fully cross-linked reaction product of polyhydroxy polyol, toluene di-isocyanate, catalysts, surfactants, pigments and water. Polyurethane



foam product is a polymeric material consisting of repeating units of carbon, hydrogen, oxygen and nitrogen.

IIIIIIIIII. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point:	Not Applicable
Vapor Pressure (mm HG):	Not Applicable
Vapor Density:	Not Applicable
Evaporation Rate:	Not Applicable
Density:	.5-40 lbs./cft
Melting Point:	450 – 500 F
Solubility in Water:	Insoluble
Appearance and Odor:	Uniform cellular solid structure of varying colors with slight characteristic odor.

IV. FIRE AND EXPLOSION HAZARD DATA

Flash Point:	Decomposition products flash at >500 F
LEL:	None
Flammable Limits:	Not Applicable
UEL:	None
Classification:	Combustible Solid
NFPA Sprinkler Classification:	Extra Hazard
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus in enclosed areas.
Unusual Fire & Explosion Hazards:	If ignited, foam can produce rapid flame spread, intense heat, dense black smoke and toxic gases. Material can melt into a burning liquid than can drip and flow.

Accumulated polyurethane dust can be readily ignited and presents a fire risk. High concentrations of dust in the air can explode if exposed to a flame, spark or other ignition sources.

V. REACTIVITY DATA

Stability:	Stable
Conditions to Avoid:	High temp, open flames, strong oxidizers (i.e. hypochlorites)



Incompatibility: Strong oxidizing acids – will degrade

Hazardous Decomposition Products: Carbon monoxide, acetaldehyde, acrylonitrile, TDI, polymer fragments, oxides of nitrogen and hydrogen cyanide. Fire retardant foams may generate emissions of hydrogen chloride, hydrogen bromide, hydrogen fluoride or phosphoric acid.

Hazardous Polymerization: Will Not Occur

VI. HEALTH HAZARD DATA

Routes of Entry: Inhalation – *Foam dust*

Health Hazards: Coarse dust can cause mechanical irritation of lungs and eyes. Airborne dust is evaluated as a nuisance dust. If ignited foam may decompose and emit toxic gases and respiratory irritants.

Eye – *Foam dust*

Coarse dust can cause mechanical irritation to the eyes. If exposed, avoid rubbing eyes.

Carcinogenicity: NTP: No
IARC Cancer Review: No
OSHA Regulated: No

Medical Conditions
Aggravated by Exposure: None Known

Emergency First Aid
Procedures:

Inhalation: Remove to fresh air, contact physician if respiratory discomfort persists.

Eyes: Flush eyes thoroughly with water for 15 minutes.

Skin: None necessary

Ingestion: None necessary



VII. PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled:

No special response required – sweep up

Waste Disposal Method: Federal, state and local authorities should be contacted before attempting any form of disposal.

Safe Handling & 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.

VIII. CONTROL MEASURES

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 cuttings, heat sealing and hot stamping.

Respiratory Protection: Should be selected based on identity and concentration of air contaminant. Only NIOSH-approved respirators for protection against the air contaminant of concern should be used.

Eye Protection: Recommended for those processing operations that may generate dust.



IX. SPECIAL INFORMATION

Flexible polyurethane foam, like all organic materials, will burn if exposed to a sufficient heat source. The ignition temperature of polyurethane foam will vary depending on the product chemical formulation, but all polyurethane foams are combustible and can create a fire risk. Flexible polyurethane foams, once ignited, may degrade and melt to a combustible liquid, which may add to the fire involvement.

Terms such as “fire retardant”, “slow burning” and “flame resistant” describe certain flammability properties and should not be regarded as denoting fire safety under all conditions. Small-scale fire tests are not intended to reflect hazards presented by these or any other material under real fire conditions.

Thermal decomposition products from polyurethane foams can be toxic and present a risk to humans who are exposed. This is true for all organic materials. Fire risks in varying degrees are common to all fires: heat, carbon monoxide, other toxicants, oxygen depletion and smoke. In fires involving polyurethane foam, particularly flexible foams, large quantities of dense smoke can be generated quickly.

Personnel involved in fire fighting should wear self-contained breathing apparatus and be aware of the exposure to toxic and potentially lethal gases. Standard fire-fighting equipment generally employed by authorized firemen is mandatory.

X. USERS 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. 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.

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results and assume no liability for damages



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