



SAFETY DATA SHEET

FLEX FOAM/BOLSTERS

1. PRODUCT AND COMPANY IDENTIFICATION:

Product Name: Flexible polyurethane
Synonyms: Bolster material, Flex Foam
Recommended uses: Expansion bolsters, Field joint insulation material
Recommended Restrictions: None known
Manufacturer/Supplier/Importer/Distributor:
Distributor/Manufacturer: Thermacor Process Inc.
1670 Hicks Field Road E.
Fort Worth, Texas 76179
817-847-7300 x 640
Emergency number: Call a local National Poison Control Unit or Thermacor 817-847-7300 x 640

2. HAZARD IDENTIFICATION (S):

Product Classification: None
Routes of Entry: Inhalation, eyes
Chemical Interactions: No known interactions
Medical Conditions Aggravated: No data available

Human Threshold Response Data:

Odor Threshold: Not Established
Irritation Threshold: Not established

Immediate (Acute) Health Effects:

Inhalation: Not expected to be toxic by inhalation
Inhalation irritation: 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.

Skin Contact: No data available
Eye contact: Coarse dust can cause mechanical irritation to the eyes. If exposed avoid rubbing eyes
Ingestion Irritation: No data available
Ingestion Toxicity: No data available
Acute Target Organ Toxicity: None Known

Prolonged (chronic) health effects:

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC or NTP
Reproductive and Developmental toxicity: Not known or reported to cause reproductive or developmental toxicity.
Inhalation: 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.
Skin Contact: There are no known or reported effects from chronic exposure except for effects (if any) similar to those experienced from acute exposure.
Ingestion: There are no known or reported effects from chronic ingestion except for effects similar to those experienced from single exposure.
Chronic Target Organ Toxicity: None known
Supplemental Health Hazard Information: No additional health information available

3. COMPOSITION/INFORMATION ON INGREDIENTS:

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

Polyurethane is a fully cross-linked reaction product of polyhydroxy polyol, diisocyanate, catalysts, surfactants, pigments and water. Polyurethane foam product is polymeric material consisting of repeating units of carbon, hydrogen, oxygen and nitrogen.

4. FIRST-AID MEASURES:

Inhalation: IF INHALED: Remove individual to fresh air; call a physician if respiratory discomfort persists.
Skin Contact: IF ON SKIN: None necessary.
Eyes: IF IN EYES: Flush eyes with plenty of water for at least 15 minutes. Call a physician if irritation develops.
Ingestion: IF SWALLOWED: Consult a physician.

5. FIRE-FIGHTING MEASURES:

Fire/explosion Hazards:	Material may be ignited if preheated to high temperatures (greater than 500 deg F), for example in a fire.
Extinguishing Media:	Use carbon dioxide, dry chemical, water spray or alcohol foam when fighting fires. Water or foam may cause frothing if liquid solvent or oil is burning but it still may be a useful extinguishing agent if carefully applied to the fire.
Fire Fighting Instructions:	In case of fire, use normal fire fighting equipment including an approved self-contained breathing apparatus (SCBA).
Hazardous Combustion Products:	Carbon monoxide, carbon dioxide.
Classification:	Combustible solid.
NFPA Sprinkler Classification:	Extra hazard.
Lower Flammable/Explosive Limit, % in air:	No Data.
Upper Flammable/Explosive Limit, % in air:	No Data.
Special Considerations:	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 formulations], but all polyurethane 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. FIRE RETARDANT FOAMS SHOULD NOT BE CONSIDERED SAFE UNDER ALL CONDITIONS. Thermal decomposition products from foams can be toxic And present a risk to humans who are exposed. Fire of polyurethane foams generate large quantities of dense smoke.

6. ACCIDENTAL RELEASE MEASURES:

NO SPECIAL RESPONSE REQUIRED.

7. HANDLING AND STORAGE:

Safe Handling and Storage	Do not store flex foam/bolster material near any ignition sources such as exposed electrical or gas heating elements. Do not smoke in foam storage areas. Dispose of any scrap or waste.
Shelf Life Limitations	No data available.
Incompatible material For storage:	Refer to section 10, "Incompatible Materials."

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Ventilation:	No special ventilation required when working with material outdoors or in large open areas. No exposure limits exist for the constituents of this product.
Respiratory Protection:	Respiratory protection not normally needed since volatility and toxicity are low. If vapors mists or aerosols are generated, wear an approved respirator.
Respirator type:	An approved air purifying respirator with dust/mist filter. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed (10) times the published limit.
Skin:	Follow good industrial hygiene practices.
Eyes:	Use safety glasses with side shields.
Protective clothing type:	Normal Clothing.

Exposure limit data:

<u>CHEMICAL NAME</u>	<u>CAS#</u>	<u>% RANGE</u>	<u>OSHA PEL / ACGIH TLV</u>
Polyurethane Foam	9009-54-4	100%	None Established

NIOSH Immediately Dangerous to life or Health; The IDLH has not been established for this product.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	Uniform cellular solid structure
Color:	Varies

Odor:	Sweet
Molecular weight	Not Applicable
pH (@25 Deg. C)	Not Applicable
Octanol/Water Coeff:	Not Applicable
Solubility in Water:	Not Applicable
Bulk Density:	Not Applicable
Specific Gravity:	Not Applicable
Vapor Density:	Not Applicable
Evaporation Rate:	Not Applicable
Volatiles, % by vol.:	Not Applicable
Boiling Point:	Not Applicable
Melting Point	175-190 C
Freezing Point:	Not Applicable

Flamable Properties

Flash Point:	> 260 C
Autoignition Temp:	No Data

10. **STABILITY AND REACTIVITY:**

Stability and Reactivity	Stable under normal Conditions
Summary:	
Reactive Properties:	Not sensitive to static discharge
Hazardous	Will not occur
Polymerization:	
Conditions to avoid:	Moisture (will lead to product performance degradation) Hygroscopic High Temperatures
Chemical	Strong oxidizing agents
Incompatibility:	
Hazardous	
Decomposition Products:	Unidentified organic compounds, carbon monoxide
Decomposition	No Data
Temperature:	

11. **TOXICOLOGICAL INFORMATION:**

Component Animal Toxicology

Oral LD50 value:	No Data
Dermal LD50 value:	No Data
Inhalation LC50 value:	No Data

Product Animal Toxicity

Oral LD50 value:	No Data
Dermal LD50 Value:	No Data
Inhalation LC50 value:	No Data
Skin Irritation:	This material is expected to be non-irritating.
Eye irritation:	This material is expected to be non-irritating.
Reproductive and	Not Known or reported to cause reproductive or developmental toxicity.
Developmental Toxicity:	
Mutagenicity:	Not known or reported to be mutagenic.
Carcinogenicity:	This chemical is not known or reported to be carcinogenic by any reference source including IARC or NTP.

12. **ECOLOGICAL INFORMATION:**

Ecological toxicity	No data
Values:	

13. **DISPOSAL CONSIDERATIONS:**

CARE MUST BE TAKEN TO PREVENT ENVIROMENTAL CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THIS MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF THE UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT NATIONAL AND EU LAWS, DIRECTIVES AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

Waste Disposal Summary: Dispose according to local, state and federal laws, directives and regulations.
Disposal methods: As a nonhazardous waste, it should be disposed of in accordance with National and EU laws, directives and regulations.

14. TRANSPORTATION INFORMATION:

Air (IATA/ICAO): Not regulated
Water (IMO): Not regulated
Land (ADR/RID): Not regulated
Flash Point: >260 C

15. REGULATORY INFORMATION:

EU labeling and Packaging: Not applicable
Symbols: None

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION:

MSDS REVISION STATUS: Revised to meet the ANSI standard of 16 sections
Additional Information: None

THIS SAFETY DATA SHEET (SDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE RELEVANT NATIONAL AND EU DIRECTIVES AND REGULATIONS. THE INFORMATION IN THIS SDS SHOULD BE PROVIDED TO ALL WHO WILL USE HANDLES, STORE, TRANSPORT OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THERMACOR BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THIS DATE OF PUBLICATION, BUT MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS SDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT THERMACOR AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THIS DOCUMENT IS CURRENT.