

Product Name: FEP FluoroGrip™ Acrylic

Manufacturer Information

<i>Manufacturer's Name</i>	<i>Address</i>	<i>Product Information</i>	<i>Emergency Telephone Number</i>	<i>Date Prepared</i>
Integument Technologies, Inc	72 Pearce Avenue Tonawanda, NY 14150	716-873-1199	800-535-5053	2-19-01

Section I – Identification of Product

- FEP FluoroGrip™ consisting of:
 - A. Surface Oxygenated Fluoropolymer Film and,
 - B. Acrylic pressure sensitive adhesive (PSA) transfer tape with release liner.

Section II – Composition

A. FEP Film		
<i>Ingredient Name</i>	<i>CAS #</i>	<i>Weight %</i>
FEP Copolymer (Fluorinated Ethylene Propylene Copolymer)	25067-11-2	>99%

- The products as supplied are not considered hazardous as defined in the US Code of Federal Regulations, 29CFR 1910.1200. The products are considered an “article” as supplied for its intended and foreseen use. All components appear on TSCA Inventory. The products contain no substances at or above the reporting threshold under Section 313 of Title III of the US EPA Superfund Amendments and Reauthorization Act of 1986 and US Code of Federal Regulations, 40 CFR part 372, based on available data.

B. Acrylic Adhesive				
<i>Composition is provided in % dry weight, unless otherwise noted</i>				
<u>Ingredient Name</u>	<u>CAS Number</u>	<u>Weight %</u>	<u>ACGI</u>	<u>OSHA**</u>
Proprietary Acrylate Copolymer Adhesive:	N/A	52.5		
Paper Release Liner:	N/A	47.5		
Residual Solvent in adhesive consists of:				
	<u>CAS Number</u>	<u>Weight %</u>	<u>ACGI</u>	<u>OSHA**</u>
			TWA	
Ethyl Acetate	141-78-6	<.1	400	400
Toluene*	108-88-3	<.1	50	100
Vinyl acetate*	108-05-4	<.1	10***	10
Isopropanol	67-63-0	<.1	400	400
* Reportable under SARA Title III Section 313				
** in PPM				
*** TLV				

Section III – Health Hazard Data

A. FEP Film	
Emergency Overview	No special dangers are known. Use within specified processing parameters. High temperatures could evolve irritating and/or toxic fumes.
Potential Health Hazards	
Skin	Not anticipated under recommended usage conditions.
Eyes	Not anticipated under recommended usage conditions.
Inhalation	Not anticipated under recommended usage conditions.
Ingestion	Not anticipated under recommended usage conditions.
Delayed Effects	None.
Ingredients found on one of the OSHA designated carcinogen lists	None listed.

B. Acrylic Adhesive	
Effects of Overexposure	
Acute	N/A
Chronic	N/A
Eyes/Mucosa	Irritation to eyes or Mucosa not anticipated when proper industrial handling is observed.
Skin	Exposure is not expected to cause skin irritation.

Section IV – First Aid Measures

A. FEP Film	
Skin	Not anticipated under recommended usage conditions. For hot product, immediately immerse in or flush affected area with large amounts of cold water. Cover with clean cotton sheeting or gauze and seek medical advice.
Eyes	Not anticipated under recommended usage conditions. If necessary, flush eyes with plenty of water. If symptoms persist or injury is suspected, seek medical advice.
Inhalation	Not anticipated under recommended usage conditions. May cause influenza-like symptoms if thermal decomposition products are inhaled ("polymer fume fever"), chills, headache. Avoid contamination of tobacco products. Remove victim to fresh air. If not breathing, perform mouth to mouth resuscitation and seek medical attention.
Ingestion	Not anticipated under recommended usage conditions.
Advice to physician	Expect influenza-like symptoms if thermal decomposition products are inhaled: chills, fever, headache, shortness of breath, coughing. This is known as "polymer fume fever" and will pass after 24 to 48 hours providing no further exposure occurs.

B. Acrylic Adhesive	
Skin	No adverse effects anticipated when proper handling and safety precautions are observed.
Eyes	Wash with water for 5 minutes. If necessary, consult a physician.
Ingestion	No adverse effects anticipated when proper handling and safety precautions are observed.
Inhalation	No adverse effects anticipated by this route of exposure.

Section V – Fire Fighting Measures

A. FEP Film	
<i>Flammable Properties</i>	Flash Point: Does not flash. Flash Point Method: N/A Auto Ignition Temperature: Not Known. Upper Flame Limit (volume % in air): N/A Lower Flame Limit (volume % in air): N/A Oxygen Index: > 95%
<i>Extinguishing Media</i>	Water, foam, carbon dioxide, dry chemical.
<i>Unusual Fire and Explosive Hazards</i>	Does not burn without external source of fuel. Fluoropolymers can increase the relative toxic properties of the gasses evolved during a fire.
<i>Special Fire Fighting Precautions/Instructions</i>	Use self-contained breathing apparatus.

B. Acrylic Adhesive	
<i>Flammable Properties</i>	Flash Point: Does not flash. Auto Ignition Temperature: > 1000° F Upper Flame Limit (volume % in air): N/A Lower Flame Limit (volume % in air): N/A
<i>Extinguishing Media</i>	Water, foam, carbon dioxide, dry chemical.
<i>Special Firefighting Procedures</i>	None known.
<i>Unusual Fire and Explosion Hazards</i>	None known.

Section VI – Accidental Release Measures

A. FEP Film

- In case of spills or other release, sweep or pick up and dispose of in a solid waste container.

B. Acrylic Adhesive

- Dispose of material in accordance with local, state, and federal rules and regulations.

Section VII – Handling and Storage

- Storage Recommendations (FluoroGripä):** No special requirements.

A. FEP Film

- Normal Handling:** Products are physiologically inert and non-toxic at normal temperatures. Above 230° C, some decomposition of FEP products can be expected with evolution of gaseous and particulate products which are toxic if inhaled. This can give rise to a characteristic syndrome with influenza-type symptoms known as “polymer fume fever.” These symptoms subside within 24-48 hours away from further exposure with no long-term effects. Keep away from ignition sources. Do not smoke while using fluoropolymers.

B. Acrylic Adhesive

- Normal Handling:** Keep area clean to avoid contamination of product.

Section VIII – Exposure Controls/Personal Protection

A. FEP Film	
Ventilation	Ensure good ventilation or exhaust if there is the possibility of fumes being evolved. Not required if material is used within specified processing parameters.
Fire and Explosion	N/A
Personal Protective Equipment	None required if material is used within specified processing parameters. Normal safety equipment should always be used in an industrial environment.
Additional Recommendations	Heat resistant clothing and skin covering when working with hot product. Do not smoke while handling material. Keep tobacco products away from sources of contamination, hands, and clothes.
Exposure Guidelines/Limits	N/A
Other Exposure Limits for Potential Decomposition Products	Not available

B. Acrylic Adhesive	
Exposure Guidelines	None at this time.
Conditions under which personal protective equipment is normally recommended	Skin Protection: No special requirements should be necessary.
	Clothing Requirements: None.
	Respiratory Protection: No special requirements should be necessary.
	Glove Requirements: None.
	Ventilation Protection: No special requirements should be necessary
	Wash Requirements: None.

Section IX – Physical and Chemical Properties

A. FEP Film		
Appearance: Transparent or translucent film	Physical State: Solid	Odor: Odorless
Specific Gravity (H₂O = 1): 2.12-2.17	Solubility in Water (weight %): Insoluble	pH: N/A
Boiling Point: N/A	Melting Point: 260° C	Vapor Pressure: N/A
Vapor Density: N/A	Evaporation Rate: N/A	% Volatiles: N/A
Ignition Temperature: >500° C	Flash Point: Does not flash	Thermal Decomposition: See Section X

B. Acrylic Adhesive	
Evaporation Rate: N/A	Solubility in Water (weight %): N/A
Vapor Pressure: N/A	Viscosity: N/A
Vapor Density: N/A	Appearance: Adhesive films: Translucent.
Boiling Point: N/A	Odor: Characteristic slight organic odor.

Section X – Stability and Reactivity

A. FEP Film	
Chemical Stability	Stable. Thermal degradation can begin at 230° C.
Incompatibilities/Reacts	Reacts with molten alkali metals and interhalogen compounds. Will burn in atmosphere of 95% oxygen when an ignition source is present.
Hazardous Decomposition Products	Thermal decomposition will evolve hydrofluoric acid, carbonyl fluoride, and other perfluoroolefins.
Hazardous Polymerization	Will not occur.

B. Acrylic Adhesive	
Chemical Stability	Stable under normal conditions.
Conditions to Avoid	None known.
Hazardous Decomposition Products	Oxides of carbon, nitrogen.
Hazardous Polymerization	Will not occur.

Section XI – Toxicological Information

A. FEP Film	
General	No potential health hazards when used within processing guidelines. Fluoropolymers are physiologically inert and are considered non-toxic.
Immediate (Acute) Effects	See section VII.
Delayed (Subchronic and Chronic) Effects	None known.
Toxicity of Product	Non-toxic when used within recommended guidelines.
Other Data	None.

B. Acrylic Adhesive

- No Information Available.

Section XII – Ecological Information

A. FEP Film

- No known harmful effects of the environment.

B. Acrylic Adhesive

- No Information Available

Section XIII – Disposal Considerations

A. FEP Film

- Clean material may be recycled. Dispose of Fluoropolymer material as solid waste according to local regulations. Dispose of packaging as solid waste according to local regulations. Can be incinerated only if the HF effluent can be extracted from the fluegases.
- This information relates only to uncontaminated product. If used in a process which contaminates product, then disposal considerations should be re-evaluated.

B. Acrylic Adhesive

- Dispose in accordance with federal and/or state regulations covering solid waste disposal.

Section XIV – Transportation Information

A. FEP Film		
<i>DOT Designation</i>	<i>UN No</i>	<i>ICAO/IATA</i>
Not hazardous	Not determined	Not hazardous

- There is no known transportation requirements associated with this material in the form supplied based on currently available data.

B. Acrylic Adhesive

- No Information Available

Section XV – Regulatory Information

A. FEP Film

- There is no known regulatory requirements associated with this material in the form supplied based on currently available data.

B. Acrylic Adhesive

- No Information Available

Section XVI – Additional Information

- This material safety data sheet was prepared in compliance with US OSHA Hazard Communication Standard 29CFR1910.1200 and the European Council Directive 91/155/EEC, 67/548 and 88/379/EEC as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labeling of dangerous substances and preparations.
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