



Material Safety Data Sheet

Total 3 pages

TUF1210 - Thermally Conductive Underfill

MSDS No.: 1115071210

Revision Date: 2007/11/15

1. Manufacturing And Product Information

Manufacturer:
United Adhesives Inc.
New & High Technology Industrial Development
Park, 61023 Tianzhu Rd., Hefei, China
Phone: +86 139 5605 4600

Product Disposal Information:
CHEMTREC: (989) 496-5900

24 Hour Emergency Telephone:
1-800-424-9300

Trade Name: **TUF1210 (One component)**
Chemical Name or Synonym:
Thermally Conductive Underfill Adhesive

Generic Description: Thermally Conductive Epoxy Underfill Adhesive

Physical Form: Semi-fluid

Color: Grey

Odor: Light odor

NFPA Profile: Health 1 Flammability 1 Instability/Reactivity 0

Note: NFPA = National Fire Protection Association

2. Hazardous Components

CAS Number	Chemical Name	Percent
Mixture of epoxy resin, anhydride with silica filler	Non-Hazardous Ingredients	> 99 %
[288-32-4]	imidazole	< 0.2%

Imidazole may be corrosive as defined in 29 CFR 1910.1200.

No other component is hazardous as defined in 29 CFR 1910.1200.

3. Hazards Identification

Product is considered as non-hazardous under normal and expected usage

Eye Health Effects/ Symptoms:	Flush with Water. Particles should be removed by physician.
Skin Health Effects /Symptoms:	Wash with soap and water to remove residue.
Inhalation Health Effects / Symptoms:	Not Applicable
Ingestion Health Effects / Symptoms:	Consult Physician

4. First Aid Measures

Eyes:	Flush with Water. Particles should be removed by physician.
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Skin:	Wash with soap and water to remove residue.		
Inhalation:	Not Applicable		
Ingestion:	Consult Physician		
5. Fire And Explosion Data			
Flammability:	No		
Flash Point (Method):	Not Applicable (N/A)		
Flammable Conditions:	Will burn, as a combustible solid		
Auto ignition Temperature:	N/A		
LEL: N/A	UEL: N/A	TLV-TWA (mg/m3): N/A	
Extinguishing Media	Use water or other medias appropriate for surrounding materials		
Special Procedure:	Wear self contained breathing apparatus (SCBA)		
Unusual Fire & Explosion Hazards	None		
Combustion Produces:	Oxides of carbon, aluminum oxide		
Sensitivity to Impact:	None		
Sensitivity to Static Electricity:	None		
Additional Information:	Material will burn as combustion solid		
6. Accidental Release Procedures			
Spill Procedure (Less than 1 Gallon):	Pick up spill material to prevent slipping hazard. No special precaution required.		
Spill Procedures (More then 1 Gallon):	Pick up spill material to prevent slipping hazard. No special precaution required.		
7. Handling and Storage Procedures			
No special handling and / or storage hazards			
8. Exposure Controls / Personal Protection			
Ventilation:	Not required		
Respiratory:	Not required		
Eyes:	Safety glasses with side shields		
Clothing / Gloves:	Rubber gloves		
9. Physical and Chemical Properties			
Boiling Point (degree C):	N/A	Melting Point (degree C):	N/A
Vapor Pressure (mm Hg):	N/A	Percent Volatiles:	< 0.1%
Vapor Density (air =1)	Solid	Specific Gravity:	2.2
Evaporation Rate:	N/A	Oxidizing Properties	Strong oxidizers

Solubility:	N/A	PH:	N/A			
Oil / Water Coefficient:	N/A	Odor Threshold:	Light odor			
Physical State:	Solid	Odor & Appearance:	Grey, Light odor			
10. Stability and Reactivity						
Stability:	Stable					
Incompatibility:	None					
Decomposition:	Oxides of carbon, aluminum oxide					
Polymerization:	Not occur					
11. Toxicological Information						
Eye:	N/A	Inhalation:	N/A			
Skin:	N/A	Ingestion:	N/A			
Sensitization:	None	Irritancy:	None			
Mutagenicity:	None	Teratogenicity:	None			
Reproduction:	None					
Conditions Aggravated by Exposure:	None					
Carcinogenicity:	None					
NTP:	None	OSHA:	None			
IARC:	None	Other:	N/A			
12. Ecological Information						
Ecological Information:	Not a hazard to the environment. Material will not decompose rapidly in the environment.					
Chemical Fate Information:	N/A					
13. Disposal Considerations						
Waste Disposal Procedures:	Wipe up and collect for proper disposal methods. Follow all applicable local, state and federal disposal regulations. Dispose of according to regulations by incineration in a special waste incinerator. Small quantities may be disposed of in a domestic waste incinerator.					
Waste Disposal Codes (All that apply):	080410 for cured material 1150102 for empty pail and cartridges					
14. Transportation Information						
Shipping and Labeling Information: Not regulated for shipping purpose.						
15. Regulatory Information						
U.S. Federal Regulation: None Known						
State Regulation: None Known						
International Regulations: None Known						
16. Additional Information						

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.