Material Safety Data Sheet

1. Chemical Product and Company Identification 物品與廠商資料	
Product Name 物品名稱	Prepreg 黏合片
Product Type 物品編號	TU-747P HF
Other/Generic Names 其他名稱	B-stage semi cured epoxy prepreg B-stage 半固化黏合片
Product Use 產品應用	Bonding layer for printed circuitry 印刷電路板用黏合片
Manufacturer and Address 製造商或供應商名稱/地址	Taiwan Union Technology Corporation / 803 Bo-ai St., Jhubei, Hsinchu County 30265, Taiwan 台燿科技股份有限公司 新竹縣竹北市博愛街 803 號
For More Information Call 文件支援	+886 3 5551103 (Monday ~ Friday, 8:00 am to 5:00 pm)
In Case Of Emergency Call 技術支援	+886 3 5551103 (24 hours/day, 7 days/week)
2. Hazards Identification 危害辨識資料	
Article Harm Classification 物品危害分類	This product is not applicable for the harmful GB and GHS graphical representation classification. 本產品不適用有害物 GB(13690-2009)及 GHS 圖示分類
Indication Content 標示內容	Not Applicable 不適用
Symbolic Mark 象徵符號	Not applicable 不適用
WARNING 警語	Not applicable 不適用
Caution 危害警告訊息	Sheeting of products will release resin and fiberglass dust. 產品在切張時會產生樹脂及玻纖粉塵
Preventive Measure 危害防範措施	Wear a mask to avoid inhaling the dust 戴口罩防護避免吸入粉塵.
Emergency Overview 主要危害與效應	This is a nonflammable, sheet material. Dust when machined or punched may cause skin or eye irritation. Fumes if decomposed may irritate eyes, nose and throat. 這是一個不可燃切張材料，由機械或沖床製程所產生的粉塵可能對皮膚及眼睛造成不適，經分解後所產生的氣體可能刺激眼睛,鼻子,喉嚨。
Potential Health Hazards 潛在健康危害效應	No hazards under normal storage, Sheeting of products will release resin and fiberglass dust. 無，在一般存放條件下，對人體健康不具危害性，但產品在切張時會產生樹脂及玻纖粉塵。
Skin 皮膚	Dust may cause moderate superficial and transient skin irritation. 裁切時所產生的粉塵會引發輕微及短暫皮膚不適
Eyes 眼睛	Dust may cause moderate transient eye irritation (conjunctivitis). 裁切時所產生的粉塵會引起輕微及短暫眼睛刺激
Inhalation 吸入	Fibrous glass dust may be released from the fiber glass cloth substrate when machined. 當使用機械裁切玻纖布時，所產生的粉塵會影響呼吸道
Ingestion 食入	Not considered a normal route of entry. 在一般使用狀況並不考慮食入危害
Ingredients found on one of the OSHA designated cacinogen lists 在 OSHA 中被列爲致癌物質成分表	None 無
3. Composition/Information on Ingredients 成分辨識資料	
Continuous Filament Fiber Glass	CAS # 65997-17-3, Weight 20-55%
Epoxy Resin Blend	CAS # Proprietary, Weight 18.9~33.6%
Curing Agent	CAS # Proprietary, Weight 14.85~26.4%
Filler	CAS # Proprietary, Weight 11.25~20%
4. First Aid Measures 急救措施	
Skin 皮膚	Wash thoroughly with soap and water. Contaminated clothing should be changed. Consult a physician if a rash or discomfort develops.

Taiwan Union Technology Corporation (TUC)
TUC Taiwan +886 3 555 1103 . TUC Changshu, China +86 512 5230 1688 . TUC Zhongshan, China +86 760 2813 6688

Copyright ©2012 Taiwan Union Technology Corporation

	用水,肥皂清潔，污染衣服應更換,，若有發疹或不適尋求醫師診斷
Eyes 眼睛	Flush with water for 15 minutes. If irritation persists, consult a physician. 用水清洗 15 分鐘，如仍感不適，尋求醫師診斷
Inhalation 吸入	If overcome by dust or smoke, move to fresh air environment. If breathing becomes difficult consult a physician. 若對粉塵或煙霧產生不適，請移至新鮮空氣區域；如果呼吸感到困難，請尋求醫師診斷。
Ingestion 食入	If large amounts are ingested contact a physician. 如有大量食入，請聯絡醫生
Advice to Physician 對醫師之建議	Treat symptomatically. 請診斷治療
5. Fire Fighting Measures 滅火措施	
Flammable Properties 易燃性質	
- Flash Point 閃火點	N/A 不適用
- Flash point method 閃火點測試方式	N/A 不適用
- Autoignition temperature 自燃溫度	N/A 不適用
- Upper flame limit 燃燒上限	(Volume % in air 空氣中之體積百分比) N/A 不適用
- Lower flame limit 燃燒下限	(Volume % in air 空氣中之體積百分比) N/A 不適用
- Flame propagation rate 火焰傳播速率	(Solids 固態) N/A 不適用
- OSHA flammability class OSHA 易燃分級	UL 94V-0
- Extinguishing media 滅火器	Water, CO2 and Dry Chemical 水，二氧化碳，化學乾粉
- Unusual fire and explosion hazards 異常起火及爆炸危害	May give off toxic hydrogen bromide gas when thermally decomposed. Other hazardous gases may be carbon monoxide, and carbon dioxide. 高熱分解會產生危害性氣體溴化氫，一氧化碳，二氧化碳，二氧化氮。
Special firefighting precautions/instructions 特殊滅火程序	Firemen should wear proper protective equipment and positive pressure self-contained breathing apparatus. 消防人員穿戴正確保護設備，正壓全面型自攜式呼吸防護具
6. Accidental Release Measures 洩漏處理方法	
In case of spill or other release (Always wear recommended personal protection equipment) 氣體洩漏溢出或其他釋出 (推薦穿戴個人保護設備)	N/A 不適用
7. Handling and Storage 安全處置與儲存方法	
Normal Handling 一般處置	The primary exposure route is inhalation of dust when machined or punched or from fumes or vapors when heated. Local exhaust ventilation should be used to control dust during periods of cutting and drilling. 主要的接觸途徑是吸入當機械或沖床製程產生的粉塵或加熱時釋出的熱氣或氣體，在裁切或鑽孔製程端，請使用局部排氣設備控制粉塵量
Storage Recommendations 建議儲存方法	N/A 不適用
8. Exposure Controls/Personal Protection 暴露預防措施	
Engineering Controls 工程控制	Use local exhaust to control dust 使用局部排氣設備，控制粉塵量。
Personal Protective Equipment 個人防護設備	
- Skin protection 皮膚與身體防護	Gloves and aprons should be worn during prolonged exposure. 長期暴露應戴手套穿著工作服
- Eye protection 睛防護	Appropriate eye protection shall be worn when machining material. 板材加工時應戴適當眼睛防護裝備
- Respiratory protection 呼吸防護	May require the use of a NIOSH approved respirator. 板材加工時，應戴有經 NIOSH 認可口罩
- Additional recommendations 其他建議	N/A 無
9. Physical and Chemical Properties 物理和化學性質	
Appearance 外觀	Yellow sheet 黃色板材
Physical State 物質狀態	Solid 固態
Molecular Weight 分子量	N/A 不適用
Chemical Formula 化學分子式	N/A 不適用

Taiwan Union Technology Corporation (TUC)
TUC Taiwan +886 3 555 1103 . TUC Changshu, China +86 512 5230 1688 . TUC Zhongshan, China +86 760 2813 6688

Copyright ©2012 Taiwan Union Technology Corporation

ODOR 氣味	None, unless heated. 除非加熱,在常溫下無味
Specific Gravity 密度	2.0±0.5 (Water=1.0)
Solubility in Water 水中溶解度 (Weight %)	Negligible 可忽略
PH 酸鹼值	N/A 不適用
Boiling Point 沸點	N/A 不適用
Melting Point 熔解溫度	N/A 不適用
Vapor Pressure 蒸氣壓	N/A 不適用
Vapor Density 蒸氣密度	N/A 不適用 (Air=1.0)
Evaporation Rate 蒸發速率	N/A 不適用
% Volatiles 爆炸界限	N/A 不適用
Flash Point 閃火點	N/A 不適用

10. Stability and Reactivity 安定性及反應

Normally Stable 常溫常壓下之安定性	Stable good. Avoid formation of dust in working area. 安定性佳，避開有粉塵的工作區域
Incompatibilities 化學不相容性	Avoid strong oxidizing agents 避免使用強氧化劑
Hazardous Decomposition Products 危害分解物	HBr, CO, CO_2 高熱分解會產生溴化氫，一氧化碳，二氧化碳，二氧化氮
Hazardous Polymerization 危害聚合物	Will not occur 不會發生

11. Toxicological Information 毒性資料

Immediate (Acute) Effects 急毒性	Dust may cause moderate eye, skin and respiratory irritation. 粉塵會造成眼睛、皮膚、呼吸道不適
Delayed (Subchronic & Chronic) Effects 遲發性(亞慢性與慢性)中毒	Chronic exposure to fiberglass dust has been associated with bronchitis. 長期處於玻纖粉塵中易引起呼吸道不適
Other 其他	The thermal degradation products, such HBr, will cause both acute and Chronic effects. 高熱分解會產生溴化氫，一氧化碳，二氧化碳，二氧化氮等

12. Ecological Information 生態資料

Not Biodegradable 不可生物分解

13. Disposal Considerations 廢棄處置方法

Disposal must be made in accordance with all applicable local, government regulations.
廢棄物請依據當地政府法規要求處置

14. Transport Information 運送資料

U.S. DOT Hazard Class 美國運輸部危害等級	N/A 不適用
U.S. DOT ID Number 美國運輸部認証編號	N/A 不適用

*For additional information on shipping regulations affecting this material, contact the information number found on the first page.
*在運送過程對材料影響的規定,與供應聯絡資訊請參照第 1 頁

15. Regulatory Information 法規資料

Toxic Substances Control ACT (TSCA) 有毒物質管制法	
- TSCA inventory status 有毒物質管制登錄	The resin system components used to make this material are on the TSCA inventory list. 構成基板之樹脂原料已登錄於 TSCA 清單
- Other TSCA issues 其他 TSCA 規定	N/A 不適用
- Section 311 hazard 條款 class 311 之危害等級	N/A 不適用
- SARA 313 toxic chemicals 依 SARA 313 毒性物質分類	N/A 不適用
Additional Regulatory Information 其他法規資訊	
- EC Risk Phrases 歐盟有害物質警示	Not classified as hazardous 未列爲危害物質

Taiwan Union Technology Corporation (TUC)
TUC Taiwan +886 3 555 1103 . TUC Changshu, China +86 512 5230 1688 . TUC Zhongshan, China +86 760 2813 6688

Copyright ©2012 Taiwan Union Technology Corporation

Material Safety Data Sheet

- EC Safety Phrases 歐盟安全物質警示	Not classified as hazardous 未列爲危害物質

16. Other Information 其他資料

Current Issue Date 本版發佈日期	September 24, 2012
Previous Issue Date 前版發佈日期	January 01, 2010
Changes to MSDS from previous issue date are due to the following 新版物質安全資料表製表日期	New Material Safety Date Sheet on September 18, 2012
Inquires to specific nature of this ingredient and the potential health and safety issues associated with them should be directed to 若需查詢詳細之材料特性與健康安全資訊，請連絡	Amanda Chen R&D Engineer Taiwan Union Technology Corporation Address: 803 Bo-ai St., Jhubei, Hsinchu County 30265, Taiwan TEL: 886-3-5551103 FAX: 886-3-5553964 陳思穎 研發工程師 台燿科技股份有限公司 新竹縣竹北市博愛街 803 號 TEL: 886-3-5551103 FAX: 886-3-5553964

Note:
The data on this sheet related only to the specific material designated herein. Taiwan Union Technology Corporation assumes no legal responsibility for use or reliance upon these data." For additional information, please contact our Marketing Department. We will be happy to provide you with more information or clarification.
表格中資料係與特定材料相關，本公司對使用上述資料並無法律責任，如需要更多資訊，請與我們銷售人員聯絡，我們將樂意提供詳細資訊及說明。

Copyright ©2012 Taiwan Union Technology Corporation