



TPU 95A HS

MATERIAL SAFETY DATA SHEET

化学品安全技术说明书

Version1.0 (版本 1.0)

Section 1: Chemical Product and Company Identification		化学品与厂商资料
Product Identifier(产品名称)	IPCON FILA TPU 95A HS	
Generic Description(类属描述)	TPU/ 热塑性聚氨酯	
Recommended Use(推荐用途)	3D printer filament / 3D 打印耗材	
Manufacturer(生产商)	IPCON Polymer Material (Suzhou) Co.,LTD 艾普创聚合物材料(苏州)有限公司 E Building, Dongchuang Science Park, Jinfeng Road, Mudu Town, Suzhou City, China 苏州市吴中区木渎镇金枫路216号东创科技园E幢	
Emergency Phone(应急电话)	Phone: 400 139 11520	

Section 2: Hazards Identification		危险性概述
GHS Classification(GHS危险性类别)	This product does not require a hazard label in accordance with GHS criteria. 根据 GHS 标准, 该产品不需要危险性标签。	
Signal Word(象形图)	None / 无象形图	
Hazard Statements(危险性说明)	None / 无危险性说明	
OSHA Hazardous Ingredients(OSHA 危险成分)	This material is not a hazardous chemical as defined in 29 CFR 1910.1200. 该产品不是29 CFR 1910.1200中定义的危险性化学品。	
Hazard Overview(危险性概述)	Fumes from processing at elevated temperatures may irritate upper respiratory tract, skin, or eyes. 高温加工中产生的气体可能会刺激上呼吸道、皮肤或眼睛。	

Section 3: Composition/Information on Ingredients		成分/组成信息
Chemical Name(化学名称)	Thermoplastic Polyurethane 热塑性聚氨酯	
This product is not classified as hazardous in accordance with GHS criteria. 根据 GHS 标准，该产品不属于危险品。		

Section 4: First Aid Measures		急救措施
Routes of Entry(摄入途径)		Skin, Eye, Inhalation / 皮肤、眼睛、吸入
Inhalation(吸入)		Under normal circumstances this product is not expected to be an inhalation hazard. Move to well-ventilated area. 在普通环境下, 该产品不会导致吸入危险。如果需要, 将患者转移到空气新鲜处。
Skin Contact(皮肤接触)		Cold product - Wash with mild soap and water. 冷产品-用肥皂和水冲洗。 Hot product - Flush immediately with clean, cold water. If product adheres to skin, do not remove. Get medical attention. 热产品-立刻用干净的冷水大量冲洗。如果产品粘着在皮肤上, 不要清除。立即就医。
Eye Contact(眼睛接触)		Immediately flush with water for at least 15 minutes. Get medical attention. 立刻用大量的水冲洗至少15分钟。立即就医。
Ingestion(食入)		Do not induce vomiting. If victim is conscious and able to swallow, give milk or water to dilute. Never give anything by mouth to an unconscious person. Get medical attention if symptoms develop. 不要催吐。如果患者神志清醒并且能够吞咽, 喂服牛奶或水来稀释。 切勿给昏迷者喂食任何东西。如出现症状, 请就医。
Delayed Effects(迟发效应)		None Known / 未知

Section 5: Fire-Fighting Measures		消防措施
Extinguishing Media(灭火剂)		Dry chemical, foam, carbon dioxide, or water spray. 化学干粉, 泡沫, 二氧化碳 (CO ₂), 或者水喷雾。
Unusual Fire Hazards(非常规火灾危险)		Containers may rupture during fire. Direct water stream may spread fire. 在火灾中容器有可能爆裂。直接用喷水器灭火可能导致火焰扩散。
Fire Fighting Procedures(灭火程序)		Self-contained breathing apparatus and full protective gear should be used. Use water spray to keep fire exposed containers cool. 使用自给式呼吸设备并穿全身防护服。喷水冷却容器。
Hazardous Products of Combustion (燃烧产生的危险产物)		See Section 10. / 参见第10部分。

Section 6: Accidental Release Measures		泄漏应急处理
Personal Precautions, protective equipment, and emergency procedures.(作业人员防护措施、防护装备和应急处置程序)	Non-hazardous under normal conditions. Product on floor may be a slip hazard. Isolate Spill Area. Avoid contact with skin, eyes, and clothing. 普通条件下没有危险性。泄漏在地上的产品会导致滑倒的危险。隔离泄漏区域。避免与皮肤、眼睛以及衣服接触。	
Environmental Precautions(环境保护措施)	Contain spill. Prevent from entering sewers, soil, or waterways. 防止泄漏物扩散。防止泄漏物进入下水道、土壤或排水系统。	
Small Spill or Leak(小量泄漏)	Collect material and dispose-of properly. 收集泄漏物并正确处置。	
Large Spill or Leak(大量泄漏)	Stop spill if safe to do so.安全的情况下制止泄漏。Shovel material and dispose-of properly. 铲起泄漏物并正确处置。	

Section 7: Handling and Storage		操作处置与储存
Precautions for safe handling(操作处置)	Avoid contact with eyes and skin. Wash thoroughly after handling. Ground containers to avoid static discharge. Protect against moisture. 避免接触眼睛和皮肤。作业后彻底洗手。将容器接地以避免静电。 防止接触水分。	
Conditions for safe storage, including any Incompatibilities(安全储存)	Keep containers tightly closed. Store in a cool, dry, well ventilated location. Keep from heat. Avoid freezing. 保持容器密闭。 储存于阴凉、干燥和通风 良好处。 远离热源。 避免冰冻。	

Section 8: Exposure Controls/Personal Protection		接触控制和个体防护
Exposure Limits(接触限制)	Reference 参考值	Value / 实际值
Component(组分)	OSHA PEL OSHA允许暴露界限值	15 mg/m ³ (total dust) 15 mg/m ³ (总粉尘)
Particulates Not Otherwise Classified (未分类的颗粒)	ACGIH TLV / ACGIH 阈限值	5 mg/m ³ (respirable) 5 mg/m ³ (呼吸尘)
		10 mg/m ³ (total dust) 10 mg/m ³ (总粉尘)
		3 mg/m ³ (respirable) 3 mg/m ³ (呼吸尘)
Engineering Controls(工程控制)	Heated materials may require local exhaust ventilation, or other engineering controls, to reduce exposure to vapors. 使用通风装置或其他工程控制措施,减少加热物产生的蒸汽。	
Exposure Controls(暴露控制)	Ensure adequate ventilation. 保证良好的通风。	

Section 8: Exposure Controls/Personal Protection		接触控制和个体防护
Personal Protective Equipment(个体防护装备)		
Respiratory(呼吸系统防护)	Not required under normal circumstances. 普通环境下不要求。	
Eye Protection(眼睛防护)	ANSI Z87.1/EN 166 Safety glasses. 符合ANSI Z87.1/EN 166标准的安全护目镜。	
Skin(皮肤防护)	Washing at mealtime and end of shift is adequate. Thermally insulated gloves (EN 407) required when handling hot material. 在饮食和结束工作前清洗双手。 操作热的产品时佩戴符合EN407标准的隔热手套。	
General Safety and Hygiene Measures (一般防护及卫生措施)	Eye wash and safety shower in work areas. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. No food in work areas. 工作场所提供安全淋浴和洗眼设备。 避免接触眼睛、皮肤和衣服。 作业后彻底清洗。 操作现场不得进食。	

Section 9: Physical and Chemical Properties 理化特性		(Not a product specification) (不是产品规格)
Physical Form (物理形态)	Solid - Filament / 固体-线材	
Color(颜色)	Various / 多种	
Odor(气味)	None to Slight / 无至轻微	
Odor Threshold(气味阈值)	Not Determined / 未确定	
pH	Not Determined / 未确定	
Melting Point(熔点)	187 °C	
Flash Point (Closed Cup)(闪点(密闭杯))	Not Applicable / 不适用	
Evaporation Rate(蒸发速率)	Not Applicable / 不适用	
Lower Explosion/Flammability Limit (爆炸/燃烧下限)	Not Applicable / 不适用	
Upper Explosion/Flammability Limit (爆炸/燃烧上限)	Not Determined / 未确定	
Vapor Pressure @ 25 °C(蒸汽压@25°C)	Not Determined / 未确定	
Vapor Density(蒸汽密度)	Negligible / 极小	
Specific Gravity @ 25 °C(比重@25°C)	Not Applicable / 不适用	
Solubility in Water(水溶解性)	Negligible / 极小	
Partition Coefficient n-octanol/water (n-辛醇/水分配系数)	Not Determined / 未确定	
Auto ignition Temperature(自燃温度)	Not Determined / 未确定	
Thermal Decomposition(热分解)	Not Determined / 未确定	
Viscosity(粘度)	Not Applicable / 不适用	
Explosion Hazard(爆炸性)	Not Applicable / 不适用	
Bulk Density(密度)	Not Determined / 未确定	
Percent Volatile(挥发物含量)	Negligible / 极小	

Section 10: Stability and Reactivity		稳定性和反应性
Chemical Stability(化学稳定性)	Stable / 稳定	
Hazardous Reactions(危险反应)	Will not occur / 不会发生	
Conditions to avoid(应避免的条件)	Avoid fire, high temperature, direct sunlight 避免火灾, 高温, 阳光直射	
Incompatible Materials: (Materials to avoid) (不相容的物质: (应避免的物质))	Strong Oxidizers, Strong Acids, Strong Bases 强氧化剂, 强酸, 强碱	
Hazardous Decomposition Products (危险的分解产物)	Carbon monoxide, carbon dioxide, hydrogen cyanide, phenyl sulfides, n-methyl-2-pyrrolidone, carbonyl sulfide, and traces of formaldehyde. 一氧化碳、二氧化碳、氰化氢、苯硫醚、N-甲基吡咯烷酮、硫化羰, 以及甲醛的痕迹。	

Section 11: Toxicological Information		毒理学信息
Routes of Exposure(接触途径)	Skin, Eyes, Inhalation / 皮肤、眼睛、吸入	
Symptoms of Overexposure(过度接触的症状)	None Known / 未知	
Acute Effects(急性影响)	Transient Irritation may Occur. Vapors and fumes from processing at elevated temperatures may irritate upper respiratory tract, skin, and eyes. 可能引起短暂刺激。加工过程中，随着温度的升高所产生的蒸汽和烟，可能刺激上呼吸道、皮肤和眼睛。	
Chronic Effects(慢性效影响)	None Known / 未知	
Acute Toxicity(急性毒性)	Not Determined / 未确定	
Dermal Toxicity(皮肤毒性)	Not Determined / 未确定	
Inhalation Toxicity(吸入毒性)	Not Determined / 未确定	
Respiratory Irritation(呼吸道刺激)	Not Classified. May cause irritation at elevated temperatures. 未分级。可能随着温度的升高造成刺激。	
Eye Irritation(眼睛刺激)	Not Classified. May cause slight eye irritation. 未分级。可能造成轻微的眼睛刺激。	
Skin Irritation(皮肤刺激)	Not Classified. Prolonged contact may cause skin irritation. 未分级。长期接触会引造成皮肤刺激。	
Germ Cell Mutagenicity(生殖细胞突变性)	Not Determined / 未确定	
Carcinogenicity(致癌性)	None Known / 未知	
Reproductive Toxicity(生殖毒性)	Not Determined / 未确定	
Specific Target Organ Toxicity (Single Exposure) (一次接触)	Not Determined / 未确定	
Repeated Dose toxicity and Specific Target Organ Toxicity (Repeated Exposure) (特异性靶器官毒性(反复接触))	Not Determined / 未确定	
Aspiration Hazard(吸入危害)	Solid Material - Not Expected. 固体材料 - 不会	
Other Relevant Toxicity Information (其他相关毒性信息)	All components encapsulated in a polymer matrix and cannot be released under normal handling conditions. 所有成分都封入聚合物基材中，不会在常规的操作条件下释放。	

Section 12: Ecological Information 生态学信息	
Ecotoxicity(生态毒性)	Not Determined / 未确定
Persistence and Degradability(持久性和降解性)	Not Determined / 未确定
Bioaccumulative Potential(潜在生物积累性)	Not Determined / 未确定
Mobility in Soil(土壤中的迁移性)	Not Determined / 未确定
PBT and vPvB Assessment(PBT和vPvB评估)	Does not meet PBT/vPvB criteria.
Other Effects(其他效应)	Solubility in water is negligible.

Section 13: Disposal Considerations 废弃处置
Consult federal, state, and local regulations before disposing of this material. 根据法规处理废弃物。

Section 14: Transportation Information 运输信息	
UN Number:	Not Regulated / 未受管制
Proper Shipping Name:	Not Regulated / 未受管制
Hazard Class:	Not Regulated / 未受管制
Packing Group:	Not Regulated / 未受管制
IATA:	Not Regulated / 未受管制
IMDG/Marine Pollutant:	Not Regulated / 未受管制

Section 15: Regulatory Information 法规信息	
TSCA(有毒物质控制法案)	All chemical substances in this material are included or exempt. 该产品中的所有化学物质在该法案规定的现存物质清单中，或被该法案豁免。



Section 16: Other Information		其他信息
Prepared by/编制方: IPCON Polymer Material (Suzhou) Co.,LTD 艾普创聚合物材料（苏州）有限公司	25-June-25 / 2025年6月25日	
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