

 ASSOCIATION CONNECTING ELECTRONICS INDUSTRIES®	Material Composition Declaration © Copyright 2005. IPC, Bannockburn, Illinois. All rights reserved under both international and Pan-American copyright conventions.	This document is a declaration of the substances within the manufacturer listed item. Note: if the item is an assembly with lower level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility. Adobe Reader version 7.0.5 is required to complete this declaration.								
1752-2 1.1	IPC Web Site for Information on IPC-1752 Standard http://www.ipc.org/IPC-175x			Form Type * Distribute	Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Materials and Mfg Information					
Supplier Information										
Company Name * Littelfuse Inc.		Company Unique ID	Unique ID Authority	Response Date * 2019-06-18		Response Document ID				
Contact Name * Lya C. Latoza		Title - Contact Global EHS Analyst	Phone - Contact * +63 430 0100	Email - Contact * EnvRequests@littelfuse.com						
Authorized Representative * Jennilyn D. Santos		Title - Representative Global EHS Supervisor	Phone - Representative * +63 430 0100	Email - Representative * EnvRequests@littelfuse.com		Supplier Comments or URL for Additional Information				
	Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	Weight *	UOM	Unit Type	
	Q4010LTHTP_TO220L	Q4010LTHTP_TO220L	Triac 10A TO220L	2004-01-11		China	2,206.0761607	mg	Each	
	Alternate Recommendation					Alternate Item Comments				
Manufacturing Process Information										
Terminal Plating / Grid Array Material Matte Tin (Sn)		Terminal Base Alloy CU Alloy	J-STD-020 MSL Rating 1	Peak Process Body Temperature 260 C		Max Time at Peak Temperature 30 seconds		Number of Reflow Cycles 1		
Comments The old exemption 5 has been replaced by Exemption 7(c)-1, Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors										

Save the fields in this form to a file	Export Data	Import fields from a file into this form	Import Data	Locked
RoHS Material Composition Declaration			Declaration Type *	Simplified
RoHS Directive 2002/95/EC	RoHS Definition: Quantity limit of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE) and quantity limit of 0.01% by mass (100 PPM) of homogeneous material for Cadmium			
Supplier certifies that it gathered the information it provides in this form concerning RoHS restrictive substances using appropriate methods to ensure its accuracy and that such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products with European Union member state laws that implement the RoHS Directive. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part, and those certifications are at least as comprehensive as the certification in this paragraph. If the Company and the Supplier enter into a written agreement with respect to the identified part, the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusive source of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form.				
RoHS Declaration *	4 - Item(s) does not contain RoHS restricted substances per the definition above except for selected exemptions			Supplier Acceptance *
Exemptions: If the declared item does not contain RoHS restricted substances per the definition above except for defined RoHS exemptions, then select the corresponding response in the RoHS Declaration above and choose all applicable exemptions.				
Exemption List Version	EL-2006/690/EC			
	5. Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.			
	7a. Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).			
Declaration Signature				
Instructions: Complete all of the required fields on all pages of this form. Select the "Accepted" on the Supplier Acceptance drop-down. This will display the signature area. Digitally sign the declaration (if required by the Requester) and click on Submit Form to have the form returned to the Requester.				
Supplier Digital Signature	Lya C. Latoza		DN: cn=Lya C. Latoza, o, ou, email=llatoza@littelfuse.com, c=PH Date: 2019.06.18 10:18:07 +08'00'	

Homogeneous Material Composition Declaration for Electronic Products

SubItem Instructions: The presence of any JIG Level A or B substances must be declared. [1] indicate the subpart in which the substance is located, [2] provide a description of the homogeneous material [3], enter the weight of the homogeneous material.

Substance Instructions: [A] select the Level (JIG A, JIG B, Requester or Supplier) [B] select the substance category (JIG or Requester) or enter a value (Supplier). [C] select the substance (JIG) or enter the substance and CAS (Other). [D] select a RoHS exemption, if applicable [E] enter the weight of the substance or the PPM concentration [F] Optionally enter the positive (+) and negative (-) tolerance in percent (Note: percent tolerance values are expected to cover a 3 sigma range of distribution unless otherwise noted).

Line Functions: +I Inserts a New Item /SubItem +M Inserts a new Material +C Inserts a new Substance Category +S Inserts a new Substance - Deletes the element line

	Item/SubItem Name		Homogeneous Material	Weight	Unit of Measure		Level	Substance Category		Substance	CAS	Exempt	Weight	Unit of Measure	Tolerance		PPM
															-	+	
	Triac 10A TO220L		Heatsink/Lead fr	1,570.24	mg		Supplier	CuFeP		Copper (Cu)	7440-50-8		1,567.26	mg			
										Iron (Fe)	7439-89-6		2.355370	mg			
										Phosphorus (P)	7723-14-0		0.628098	mg			
	Outside Lead Fir			49.1666	mg		Supplier	Tin (Sn)		Tin (Sn)	7440-31-5		49.16666	mg			
	Die attach (Solder			2.542	mg		Supplier	(F367SN3-90M3)		Tin (Sn)	7440-31-5		0.066092	mg			
										Rosin	65997-05-9		0.15252	mg			
										Other	SYSTEM		0.061008	mg			
							A	Lead/Lead Compound		Lead	7439-92-1	7a. Lead	2.26238	mg			890,00
	Die attach (Solder			1.916	mg		Supplier	(Pb92.5Sn5Ag2.5)		Tin (Sn)	7440-31-5		0.0958	mg			
										Sliver	7440-22-4		0.0479	mg			
							A	Lead/Lead Compound		Lead	7439-92-1	7a. Lead	1.7723	mg			925,00
	Chip			9.29732	mg		Supplier	Silicon (Si)		Silicon (Si)	7440-21-3		9.039642	mg			
							B	Nickel (external applic		Nickel	7440-02-0		0.257678	mg			
	Chip Passivation			0.40741	mg		Supplier	SiO2		SiO2	7631-86-9		0.203705	mg			
							Supplier	PbO		PbO	1317-36-8	5. Lead in	0.181071	mg			444,43
							Supplier	Al2O3		Al2O3	1344-28-1		0.004526	mg			
							Supplier	Boron		Boron	7440-42-8		0.005613	mg			
							Supplier	Oxygen		Oxygen	7782-44-7		0.012493	mg			
	Ceramic Substra			76.6666	mg		Supplier	Ceramic		Al2O3	1344-28-1		70.955	mg			
										Misc., not to declare	SYSTEM		5.711666	mg			
	Molding Compound			495.833	mg		Supplier	Moulding Compound		Epoxy Cresol Novolac	29690-82-2		74.375	mg			
										Phenol Novoloac	9003-35-4		24.79166	mg			
										Metal hydroxide	SYSTEM		74.375	mg			

Carbon black	1333-86-4		4.958333	mg			
Silica Fused	60676-86-0		317.3333	mg			