Material Composition Declaration

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 Informat

Supplier Information

Company Name *	Company Unique ID	Unique ID Authority	**Response Date ***	Response Document ID	
Ecliptek Corporation			**2013-10-02**		
Contact Name *	Title - Contact	**Phone - Contact ***	**Email - Contact ***		
Tom Culhane	V.P. of Engineering	**(714) 433-1200**	**quality@ecliptek.com**		
Authorized Representative *	Title - Representative	**Phone - Representative ***	**Email - Representative ***	Supplier Comments or URL for Additional Information	
Tom Culhane	V.P. of Engineering	**(714) 433-1200**	**quality@ecliptek.com**	http://www.ecliptek.com/	

Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	**Weight ***	UOM	Unit Type
	EMK12 Series		2011-06-23			78.464	mg	Each

Alternate Recommendation				Alternate Item Comments	

Manufacturing Process Information

Terminal Plating / Grid Array Material	Terminal Base Alloy	J-STD-020 MSL Rating	Peak Process Body Temperature	Max Time at Peak Temperature	Number of Reflow Cycles
Nickel/Palladium/Gold (Ni/Pd/Au)	**CU Alloy**	**1**	**260** C	**10** seconds	**2**

Comments

Terminal Plating Thickness: Gold (0.12 to 0.60µinch), Palladium (0.80 to 6.00µinch), Nickel (20 to 80µinch).

RoHS Definition Addition: Quantity limit of 0.1% by mass (1000ppm) in homogeneous material for Decabromodiphenylether (or Deca-BDE) and Perfluorooctane Sulfonate (PFOS).

*** Required Field**

Form enabled by Adobe

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 * **Custom**

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

RoHS 2 (Recast of EU RoHS Directive 2002/95/EC):
This material composition declaration certifies that the listed product complies with the requirements of Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment as adopted June 8, 2011 and published in the Official Journal of the European Union on July 1, 2011.
Supplier certifies that it gathered the information it provides in this form 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. In the absence of such written agreement, the warranty rights and/or remedies of Supplier's Standard Terms and Conditions of Sale applicable to such part shall apply.

RoHS Declaration *	1 - Item(s) does not contain RoHS restricted substances per the definition above	**Supplier Acceptance ***	**Accepted**

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.

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	Tom Culhane	Digitally signed by Tom Culhane DN: cn=Tom Culhane, o=Ecliptek Corporation, ou=Ecliptek Corporation, email=tculhane@ecliptek.com, c=US Date: 2013.10.02 15:03:32 -07'00'	

*** Required Field**

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
															-	+	
	Lead Frame		C194	18.499	mg		Supplier	Copper		Copper	7440-50-8		18.076	mg			
							Supplier	Iron		Iron	7439-89-6		0.401	mg			
							Supplier	Zinc		Zinc	7440-66-6		0.022	mg			
			Plating	0.164	mg		B	Nickel (external applic		Nickel	7440-02-0		0.149	mg			
							Supplier	Palladium		Palladium	7440-05-3		0.013	mg			
							Supplier	Gold		Gold	7440-57-5		0.002	mg			
	Die 1		CMOS Die	0.67	mg		Supplier	Silicon		Silicon	7440-21-3		0.67	mg			
	Die 2		MEMS Die	0.14	mg		Supplier	Silicon		Silicon	7440-21-3		0.14	mg			
	Die Attach		Conductive Epo	0.61	mg		Supplier	Silver		Silver	7440-22-4		0.433	mg			
							Supplier	Acrylate Resin		Acrylate Resin	Proprietary		0.159	mg			
							Supplier	Additive		Additive	Proprietary		0.018	mg			
	Wire		Gold	0.82	mg		Supplier	Gold		Gold	7440-57-5		0.82	mg			
	Encapsulation		Epoxy Resin	57.561	mg		Supplier	Silica Fused		Silica Fused	60676-86-0		53.272	mg			
							Supplier	Epoxy Resin		Epoxy Resin	24969-06-0		2.015	mg			
							Supplier	Phenol Resin		Phenol Resin	Proprietary		2.101	mg			
							Supplier	Carbon Black		Carbon Black	1333-86-4		0.173	mg			

*** Required Field**