



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D
<i>* : Required Field</i>			

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-02-19
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	Representative Title	ADG MD CHAMPION
Representative Phone *	Refer to Supplier Comment section	Representative Email *	Refer to Supplier Comment section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

Uncertainty Statement


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Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	Standard

Legal Statement

Supplier certifies that it gathered the provided information and 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. 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(s), 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(s), 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.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
	EHTK*Z1G016T	A	994X	2018-02-19
Amount	UoM	Unit type	ST ECOPACK Grade	
220.00	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
Not Applicable	Not Applicable	Not Applicable		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy		
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape
RAD	4.6X4.6X3.5	3	Through-hole
Comment	Package: TO 92 Soft Solder - MDF valid for Z0107DA 2AL2 - Z0107MA 1AA2 - Z0107MA 2AL2 - Z0107MA 5AL2		

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	false
2 - Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply)	false
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	true
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	false
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)
7c-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

QueryList : California Prop65 list, dated 15th December 2017			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.01	Die	59
Lead	1.32	Soft solder	6005
Lead-Borate Glass	0.17	Die glass coating	768

QueryList : REACH-15th January 2018				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	EHTK*21G016T					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	1.056	mg	supplier	die	Silicon (Si)	7440-21-3		0.827	mg	783144	3759
				supplier	metallization	Aluminium (Al)	7429-90-5		0.029	mg	27462	132
				supplier	metallization	Nickel (Ni)	7440-02-0		0.005	mg	4735	23
				supplier	metallization	Gold (Au)	7440-57-5		0.003	mg	2841	14
				supplier	Passivation	Silicon Oxide	7631-86-9		0.008	mg	7576	36
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.005	mg	4735	23
				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	1894	9
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.008	mg	7576	36
				JIG - R	glass coating	Lead-Borate Glass	65997-18-4	7c-I-Electrical and e	0.169	mg	160038	768
Leadframe	Copper & its alloys	100.733	mg	supplier	alloy	Copper (Cu)	7440-50-8		100.634	mg	999017	457427
				supplier	alloy	Phosphorus(P)	12185-10-3		0.030	mg	298	136
				supplier	alloy	Iron(Fe)	7439-89-6		0.069	mg	685	314
Die attach	Solder	1.413	mg	supplier	solder	Silver(Ag)	7440-22-4		0.021	mg	14862	95
				JIG - R	solder	Lead(Pb)	7439-92-1	7a-Lead in high me	1.321	mg	934890	6005
				supplier	solder	Tin(Sn)	7440-31-5		0.071	mg	50248	323
Bonding wire	Other inorganic materials	1.382	mg	supplier	Bonding wire	Copper(Cu)	7440-50-8		1.382	mg	1000000	6282
Encapsulation	Other Organic Materials	112.980	mg	supplier	Mold compound	Silicone dioxide (Quartz)	14808-60-7		96.032	mg	849991	436509
				supplier	Mold compound	Epoxy Resin	25068-38-6		11.298	mg	100000	51355
				supplier	Mold compound	Phenol Resin	29690-82-2		5.084	mg	44999	23109
				supplier	Mold compound	Carbon Black	1333-86-4		0.566	mg	5010	2573
Finishing	Solder	2.436	mg	supplier	Connection coating	Tin(Sn)	7440-31-5		2.436	mg	1000000	11073