



## Materials Declaration Form

<b>IPC Form Type *</b>	1752 Distribute	<b>Version</b>	2
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2016-08-08
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Floriana San Biagio	<b>Representative Title</b>	AMG MD CHAMPION
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty Statement**


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Legal Statement			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
	HZGR*KF33FC1	A	SH1A	2016-08-08
Amount	UoM	Unit type	ST ECOPACK Grade	
331.30	mg	Each	ECOPACK® 2	
	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant ( in each organic material)		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	6.085x6.61x2.3	3	gull wing	
Comment	Package: GR TO-252 DPAK Cu Wire; MDF valid for: KF33BDT-TR			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : REACH-20th June 2016				
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	HZGR*KF33FC1					
note : Substance present with less 0.001mg will not be declared in this document												
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	2.994	mg	supplier	die	Silicon (Si)	7440-21-3		2.899	mg	968270	8750
				supplier	metallization	Aluminium (Al)	7429-90-5		0.037	mg	12358	112
				supplier	Passivation	Silicon Nitride	12033-89-5		0.013	mg	4342	39
				supplier	Passivation	Silicon Oxide	7631-86-9		0.017	mg	5678	51
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	668	6
				supplier	back side metallization	Gold (Au)	7440-57-5		0.006	mg	2004	18
Leadframe	Copper & its alloys	183.855	mg	supplier	back side metallization	Nickel (Ni)	7440-02-0		0.020	mg	6680	60
				supplier	alloy	Copper (Cu)	7440-50-8		183.616	mg	998700	554229
				supplier	alloy	Iron (Fe)	7439-89-6		0.085	mg	462	257
Soft solder		2.533	mg	supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.154	mg	838	465
				supplier	alloy	Lead (Pb)	7439-92-1	7a-Lead in high me	2.419	mg	954994	7302
				supplier	solder	Silver (Ag)	7440-22-4		0.063	mg	24872	190
Bonding wires	Copper & its alloys	0.254	mg	supplier	solder	Tin (Sn)	7440-31-5		0.051	mg	20134	154
				supplier	wire	Copper (Cu)	7440-50-8		0.254	mg	1000000	767
				supplier	wire	Copper (Cu)	7440-50-8		0.254	mg	1000000	767
Encapsulation	Other Organic Materials	140.619	mg	supplier	mold compound	Silica, vitreous	6076-86-0		123.041	mg	874996	371388
				supplier	mold compound	Tetramethyl-biphenyl-diyl-bis oxymethylene-t	85954-11-6		5.625	mg	40002	16979
				supplier	mold compound	Epoxy Resin	Proprietary		4.219	mg	30003	12735
				supplier	mold compound	phenol resin	Proprietary		7.031	mg	50000	21222
connections coating	Solder	1.045	mg	supplier	mold compound	Carbon black	1333-86-4		0.703	mg	4999	2122
				supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3154