



## 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>	2016-02-03
<b>Contact Name *</b>	Refer to Supplier comment section	<b>Contact Title</b>	Refer to Supplier comment section
<b>Authorized Representative *</b>	Floriana San Biagio	<b>Representative Title</b>	AMS Material Declaration 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
	77AA*MV4YABA	A	CA2A	2016-02-03
Amount	UoM	Unit type	ST ECOPACK Grade	
7.35	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			

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Nickel/Gold (Ni/Au), electrolytic	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
LGA	2.3x2.3x0.7	16	No lead	
Comment	Package: A0ZZ WFLGA 2.3X2.3X0.7 16L; MDF valid for K2G2ISTR			

QueryList : ROHS directive 2011/65/EU _ANNEX IV	
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
7c-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices

QueryList : REACH-17th December 2015				
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	77AA*MV4YABA									
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Dies	Other inorganic materials	2.761	mg	supplier	die	Silicon (Si)	7440-21-3		2.294	mg	830858	312109				
				supplier	metallisation	Aluminium (Al)	7429-90-5		0.019	mg	6882	2585				
				supplier	metallisation	Copper (Cu)	7440-50-8		0.015	mg	5433	2041				
				supplier	metallisation	Tantalum (Ta)	7440-25-7		0.003	mg	1087	408				
				supplier	metallisation	Titanium (Ti)	7440-32-6		0.005	mg	1811	680				
				supplier	metallisation	Tungsten (W)	7440-33-7		0.002	mg	724	272				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.010	mg	3622	1361				
				supplier	passivation	Silicon Oxide	7631-86-9		0.203	mg	73524	27619				
				JIG - R	die glass coating	Lead-Borate Glass	65997-18-4	7c-I-Electrical and electron	0.209	mg	75697	28435				
				supplier	UBM	Copper (Cu)	7440-50-8		0.001	mg	362	136				
				supplier	prepreg	Fiber glass	65997-17-3		0.408	mg	274933	55510				
				supplier	prepreg	epoxy resin	28906-96-9		0.259	mg	174528	35238				
				supplier	prepreg	Calcium carbonate	471-34-1		0.037	mg	24933	5034				
				supplier	prepreg	Calcium oxide	1305-78-8		0.037	mg	24933	5034				
				supplier	Solder mask	Acrylic resin	9003-01-4		0.051	mg	34367	6939				
				supplier	Solder mask	Epoxy resin	29690-82-2		0.020	mg	13477	2721				
				supplier	Solder mask	Barium sulfate	7727-43-7		0.015	mg	10108	2041				
				supplier	Solder mask	Silica, vitreous	60676-86-0		0.005	mg	3369	680				
				supplier	Solder mask	Talc containing no asbestiform fibers	14807-96-6		0.003	mg	2022	408				
				supplier	Solder mask	aromatic carbonyl compound	Proprietary		0.004	mg	2695	544				
				supplier	Solder mask	amine compound	Proprietary		0.001	mg	674	136				
					Copper & its alloys			supplier	metallisation	Copper (Cu)	7440-50-8		0.631	mg	425202	85850
					Nickel (Ni)			supplier	metallisation	Nickel (Ni)	7440-02-0		0.011	mg	7412	1497
	Precious metals			supplier	metallisation	Gold (Au)	7440-57-5		0.002	mg	1348	272				
Die attach	Other Organic Materials	0.086	mg	supplier	tape	epoxy resin	Proprietary		0.055	mg	639535	7483				
				supplier	tape	polyolefin	9003-07-0		0.027	mg	313953	3673				
				supplier	tape	Diphenol Propane Diglycidyl Ether	1675-54-3		0.004	mg	46512	544				
Die attach 2	Other Organic Materials	0.132	mg	supplier	tape	amorphous silica	7631-86-9		0.055	mg	416667	7483				
				supplier	tape	epoxy resin	25038-59-9		0.033	mg	250000	4490				
				supplier	tape	Acrylic resin	9003-01-4		0.022	mg	166667	2993				
				supplier	tape	Epoxyde Bisphenol A Resin	25068-38-6		0.022	mg	166667	2993				
				supplier	wire	Gold (Au)	7440-57-5		0.175	mg	988701	23810				
Bonding wire	Precious metals	0.177	mg	supplier	wire	Palladium (Pd)	7440-05-3		0.002	mg	11299	272				
				supplier	wire	Silica, vitreous	60676-86-0		2.154	mg	794834	293061				
encapsulation	Other Organic Materials	2.710	mg	supplier	mold compound	Silica	7631-86-9		0.271	mg	100000	36871				
				supplier	mold compound	Epoxy Resin	Proprietary		0.108	mg	39852	14694				
				supplier	mold compound	Epoxyde Bisphenol A Resin	25068-38-6		0.095	mg	35055	12925				
				supplier	mold compound	Phenol Resin	Proprietary		0.068	mg	25092	9252				
				supplier	mold compound	Carbon black	1333-86-4		0.014	mg	5166	1905				