



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-04-13
Company Unique ID	NL 008751171B01		
Contact Name *	Floriana SAN BIAGIO	Contact Title	AMS MD Champion
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
	22AA*MV9UAAA	A	MA1A	2018-04-13
Amount	UoM	Unit type	ST ECOPACK Grade	
21.0	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		
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel/Gold (Ni/Au), electrolytic	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
LGA	2.65x3.5x1.08	4	flat	
Comment	B04C RHLGA 2.65X3.5X1.08(MAX)MM 4L			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	TRUE
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)	false
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Exemption id.	Description

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
;				
;				
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Homogeneous Material above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Homogeneous Material (mg)	Application - Homogeneous Material	ppm in Homogeneous Material
;				
;				

Material Composition Declaration						Mfr Item Name	22AA*MV9UAAA		100%	100%	100%	100%				
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Dies		1.589	mg	supplier	die	Silicon (Si)	7440-21-3		1.537	mg	967275	73190				
				supplier	metallisation	Aluminium (Al)	7429-90-5		0.002	mg	1259	95				
				supplier	metallisation	Copper (Cu)	7440-50-8		0.006	mg	3776	286				
				supplier	metallisation	Gold (Au)	7440-57-5		0.001	mg	629	48				
				supplier	metallisation	Tantalum (Ta)	7440-25-7		0.001	mg	629	48				
				supplier	metallisation	Titanium (Ti)	7440-32-6		0.001	mg	629	48				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.014	mg	8811	667				
				supplier	passivation	Silicon Oxide	7631-86-9		0.027	mg	16992	1286				
				substrate	M-015 Other organic materials	6.640	mg	supplier	prepreg	Fiber glass	65997-17-3		0.698	mg	105120	33238
								supplier	prepreg	thermosetting resin	25722-66-1		0.438	mg	65964	20857
supplier	prepreg	silica vitrous	7631-86-9						0.126	mg	18976	6000				
supplier	Solder mask	Acrylic resin	9003-01-4						0.186	mg	28012	8857				
supplier	Solder mask	Barium sulfate	7727-43-7						0.079	mg	11898	3762				
supplier	Solder mask	epoxy resin	85954-11-6						0.068	mg	10241	3238				
supplier	Solder mask	Talc	14807-96-6						0.047	mg	7078	2238				
supplier	Solder mask	aromatic hydrocarbon	64742-94-5						0.021	mg	3163	1000				
supplier	Solder mask	[2-methoxymethylethoxy]propanol	34590-94-8						0.052	mg	7831	2476				
supplier	Solder mask	Acetate compound	112-15-2						0.052	mg	7831	2476				
supplier	Solder mask	DPMA	88917-22-0		0.010	mg	1506	476								
supplier	Solder mask	Diphenyl-trimethylbenzoyl phosphine oxide	75980-60-8		0.008	mg	1205	381								
	M-004 Copper and its alloys			supplier	metallisation	Copper (Cu)	7440-50-8		4.669	mg	703163	222333				
	M-006 Nickel and its alloys			supplier	metallisation	Nickel (Ni)	7440-02-0		0.165	mg	24849	7857				
	M-008 Precious metals			supplier	metallisation	Gold (Au)	7440-57-5		0.021	mg	3163	1000				
Die attach	M-015 Other organic materials	0.026	mg	supplier	tape	epoxy resin	25068-38-6		0.016	mg	615385	762				
				supplier	tape	Polypropylene	9003-07-0		0.001	mg	38462	48				
				supplier	tape	epoxy resin	29690-82-2		0.003	mg	115385	143				
				supplier	tape	propenoate polymer	538311-13-6		0.005	mg	192308	238				
				supplier	tape	Diphenol Propane Diglycidyl Ether	1675-54-3		0.001	mg	38462	48				
Die attach 2	M-015 Other organic materials	0.060	mg	supplier	glue	Resin	9003-36-5		0.043	mg	716667	2048				
				supplier	glue	Epoxy resin	25068-38-6		0.012	mg	200000	571				
				supplier	glue	silica	60676-86-0		0.003	mg	50000	143				
				supplier	glue	other	Proprietary		0.002	mg	33333	95				
				supplier	wire	Gold (Au)	7440-57-5		0.035	mg	1000000	1667				
Bonding wire solder paste	M-008 Precious metals	0.035	mg	supplier	cap adhesive	Tin (Sn)	7440-31-5		0.313	mg	894887	14919				
				supplier	cap adhesive	Antimony (Sb)	7440-36-0		0.033	mg	95116	1586				
				supplier	cap adhesive	Colephony	8050-09-7		0.004	mg	9997	167				
Metal cap	M-011 Other Inorganic materials	12.300	mg	supplier	cap	Copper (Cu)	7440-50-8		12.300	mg	1000000	585714				