



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 *	2017-07-31
Contact Name *	Refer to Supplier comment section	Contact Title	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		

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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
SPC58NE84C3QM HAR	B0F6*FH84BBQ	A	MA1A	2017-07-31
Amount	UoM	Unit type	ST ECOPACK Grade	
1035.0	mg	Each	ECOPACK® 2	

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	
Tin/Silver/Copper (SACN38855)	Nickel/Gold (Ni/Au), electrolytic	other		



Package Designator	Size	Nbr of instances	Shape	
BGA	17 - 17 - 1.8	292	bulk solder	
Comment	Package: FPBGA 17X17X1.8 292 B0.5 P0.8			

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	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

Query : California Prop65 list, dated 21st October 2016			
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	3.96	Die / Substrate / Solder balls	3828
Lead	0.02	Solder balls	18

QueryList : REACH-12th January 2017				
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	BOF6*FH848BQ									
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	32.266	mg	supplier	die	Silicon (Si)	7440-21-3		30.305	mg	939224	29280				
				supplier	metallisation	Aluminium (Al)	7429-90-5		0.214	mg	6632	207				
				supplier	metallisation	Copper (Cu)	7440-50-8		0.671	mg	20796	648				
				supplier	metallisation	Nickel (Ni)	7440-02-0		0.003	mg	93	3				
				supplier	metallisation	Tantalum (Ta)	7440-25-7		0.114	mg	3533	110				
				supplier	metallisation	Titanium (Ti)	7440-32-6		0.019	mg	589	18				
				supplier	metallisation	Tungsten (W)	7440-33-7		0.003	mg	93	3				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.152	mg	4711	147				
				supplier	passivation	Silicon Oxide	7631-86-9		0.785	mg	24329	758				
				Substrate	Other Organic Materials	340.796	mg	supplier	core material	Barium sulfate	7727-43-7		20.839	mg	61150	20134
								supplier	core material	Acrylic resin	9003-01-4		32.333	mg	94875	31240
								supplier	core material	Epoxy resin	29690-82-2		25.432	mg	74625	24572
								supplier	core material	Biphenyl epoxy resin	85954-11-6		15.722	mg	46133	15390
								supplier	core material	Talc containing no asbestiform fibers	14807-96-6		12.138	mg	35617	11728
								supplier	core material	Methoxymethylethoxy propanol	34590-94-8		3.468	mg	10176	3351
supplier	core material	Amorphous silica	7631-86-9						2.312	mg	6784	2234				
supplier	core material	3-methyl-methoxy-buthyl	103429-90-9						1.561	mg	4580	1508				
supplier	core material	Silica Cristobalite	14464-46-1						1.156	mg	3392	1117				
supplier	core material	Copper Phthalocyanine	14302-13-7						0.035	mg	103	34				
supplier	core material	Morpholine derivative	Proprietary						0.578	mg	1696	558				
supplier	core material	Bromine	7726-95-6						0.009	mg	26	9				
supplier	core material	Chlorine	22537-15-1						0.017	mg	50	16				
supplier	prepreg	Fiber glass	65997-17-3						0.088	mg	258	85				
supplier	prepreg	Bismaleimide	105391-33-1						0.023	mg	67	22				
supplier	prepreg	Triazine (T)	25722-66-1						0.023	mg	67	22				
supplier	prepreg	Bisphenol F type epoxy resin	9003-36-5						0.015	mg	44	14				
supplier	prepreg	metal hydroxide	21645-51-2						0.002	mg	6	2				
supplier	prepreg	Calcium sulfate	7778-18-9						0.001	mg	3	1				
supplier	Solder mask	Barium sulfate	7727-43-7						3.126	mg	9173	3020				
supplier	Solder mask	Acrylic resin	9003-01-4						4.850	mg	14231	4686				
supplier	Solder mask	Epoxy resin	29690-82-2						3.815	mg	11194	3686				
supplier	Solder mask	Biphenyl epoxy resin	85954-11-6						2.358	mg	6919	2278				
supplier	Solder mask	Talc containing no asbestiform fibers	14807-96-6						1.821	mg	5343	1759				
supplier	Solder mask	Methoxymethylethoxy propanol	34590-94-8						0.520	mg	1526	505				
supplier	Solder mask	Amorphous silica	7631-86-9						0.347	mg	1018	335				
supplier	Solder mask	3-methyl-methoxy-buthyl	103429-90-9						0.234	mg	687	226				
supplier	Solder mask	Silica Cristobalite	14464-46-1						0.173	mg	508	167				
supplier	Solder mask	Copper Phthalocyanine	14302-13-7						0.005	mg	15	5				
supplier	Solder mask	Morpholine derivative	Proprietary						0.087	mg	255	84				
supplier	Solder mask	Bromine	7726-95-6						0.001	mg	3	1				
supplier	Solder mask	Chlorine	22537-15-1						0.003	mg	9	3				
supplier	metallisation	Copper (Cu)	7440-50-8						203.345	mg	596677	196469				
supplier	metallisation	Nickel (Ni)	7440-02-0		3.864	mg	11338	3733								
supplier	metallisation	Gold (Au)	7440-57-5		0.495	mg	1452	478								
Die attach	Other Organic Materials	4.219	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		3.320	mg	786916	3208				
				supplier	glue or tape	Di(trimethylolpropane tetraacrylate)	94108-97-1		0.759	mg	179900	733				
				supplier	glue or tape	2,6-Diglycidyl phenyl allyl ether	EC 417-470-1		0.127	mg	30102	123				
				supplier	glue or tape	Mequinol	150-76-5		0.013	mg	3082	13				
Bonding wires	Other inorganic materials	1.658	mg	supplier	wire	Copper (Cu)	7440-50-8		1.625	mg	980097	1570				
				supplier	wire	Palladium (Pd)	7440-05-3		0.030	mg	18094	29				
				supplier	wire	Silver (Ag)	7440-22-4		0.003	mg	1809	3				
Encapsulation	Other Organic Materials	465.283	mg	supplier	mold compound	Silica, vitreous	60676-86-0		379.206	mg	815001	366383				
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		46.528	mg	99999	44955				
				supplier	mold compound	Phenol resin	205830-20-2		23.264	mg	50000	22477				
				supplier	mold compound	Magnesium dihydroxide	1309-42-8		0.465	mg	999	449				
				supplier	mold compound	Quartz	14808-60-7		11.632	mg	25000	11239				
Solder balls	Solder	190.778	mg	supplier	mold compound	Carbon Black	1333-86-4		4.188	mg	9001	4046				
				supplier	solder alloy	Tin (Sn)	7440-31-5		181.793	mg	952903	175645				
				supplier	solder alloy	Silver (Ag)	7440-22-4		7.250	mg	38002	7005				

			supplier	solder alloy	Copper (Cu)	7440-50-8		1.526	mg	7999	1474
			supplier	solder alloy	Nickel (Ni)	7440-02-0		0.095	mg	498	92
			supplier	solder alloy	Antimony (Sb)	7440-36-0		0.095	mg	498	92
			JIG - R	solder alloy	Lead (Pb)	7439-92-1		0.019	mg	100	18