



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 *	2016-07-22
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
	CH1L*FL60CCQ	A	MALTA B/E	2016-07-22
Amount	UoM	Unit type	ST ECOPACK Grade	
681.44	mg	Each	ECOPACK2	

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	
NAC	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
QFN	14-14-1.4	100	GULL WING	
Comment	LQFP 100 14x14x1.4 1. MDFvalid for SPC56EL54L3CBFSR and SPC56EL54L3CBFSY			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	false
Exemption Id.	Description

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	CH11*FL60CCQ					
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	39.802	mg	supplier	die	Silicon (Si)	7440-21-3		32.447	mg	815210	47615
				supplier	metallization	Aluminium (Al)	7429-90-5		0.060	mg	1507	88
				supplier	metallization	Copper (Cu)	7440-50-8		0.532	mg	13366	781
				supplier	metallization	Tantalum (Ta)	7440-25-7		6.273	mg	157605	9206
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	26	1
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	151	9
				supplier	metallization	Tungsten (W)	7440-33-7		0.004	mg	100	6
				supplier	Passivation	Silicon Nitride	12033-89-5		0.135	mg	3392	198
				supplier	Passivation	Silicon Oxide	7631-86-9		0.344	mg	8643	505
				supplier	alloy	Copper (Cu)	7440-50-8		169.079	mg	972473	248120
Leadframe	Copper & its alloys	173.865	mg	supplier	alloy	Iron (Fe)	7439-89-6		3.977	mg	22874	5836
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.239	mg	1375	351
				supplier	alloy	Zinc (Zn)	7440-66-6		0.208	mg	1196	305
				supplier	metallization	Silver (Ag)	7440-22-4		0.362	mg	2082	534
				supplier	glue or tape	Silver (Ag)	7440-22-4		7.385	mg	900061	10837
Die attach	Other Organic Materials	8.205	mg	supplier	glue or tape	Isobornyl Methacrylate	7534-94-3		0.451	mg	54966	662
				supplier	glue or tape	Bismaleimide resin	35325-39-4		0.328	mg	39976	481
				supplier	glue or tape	spacer polymer	Proprietary		0.041	mg	4997	60
Bonding wires	Other inorganic materials	0.709	mg	supplier	wire	Copper (Cu)	7440-50-8		0.695	mg	980254	1020
				supplier	wire	Palladium (Pd)	7440-05-3		0.013	mg	18336	19
				supplier	wire	Silver (Ag)	7440-22-4		0.001	mg	1410	1
				supplier	mold compound	Silica, vitreous	60676-86-0		390.273	mg	864000	572718
Encapsulation	Other Organic Materials	451.705	mg	supplier	mold compound	Epoxy Resin	25068-38-6		33.878	mg	75000	49715
				supplier	mold compound	Phenol Resin	29690-82-2		22.585	mg	49999	33143
				supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		2.259	mg	5001	3315
				supplier	mold compound	Quartz	14808-60-7		1.355	mg	3000	1988
				supplier	mold compound	Carbon black	1333-86-4		1.355	mg	3000	1988
Connections coating	Solder	7.154	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		7.154	mg	1000000	10498