



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Sectionals *	A-D <i>* : Required Field</i>

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2015-06-04
Contact Name *	Refer to "Supplier Comment" section	Contact Title	Refer to "Supplier Comment" section
Contact Phone *	Refer to "Supplier Comment" section	Contact Email *	Refer to "Supplier Comment" section
Authorized Representative *	Carole DEL PUPPO	Representative Title	DCG-CPD Material Declaration 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/online_tech_support.html		

Uncertainty Statement

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Legal Statement

Supplier Acceptance *	true	Legal Declaration *	Standard
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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
STI5197HBC/C7U	7ULO*5B97HFT	A	MA1A	2015-06-04
Amount	UoM	Unit type	ST ECOPACK Grade	
557.0	mg	Each	ECOPACK® 2	

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	
Tin/Silver/Copper (SAC125)	NAC	NAC	CD00326316 4.0 1F031860	

Package Designator	Size	Nbr of instances	Shape	
BGA	15x15x1.7	240	bulk solder	
Comment	LFBGA 15x15x1.7 240 5R18 P.8 b.4			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-17th December 2014	
Query	Response
The product does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH	true

Material Composition Declaration						Mfr Item Name	7ULO*5B97HFT					
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	16.238	mg	supplier	die	Silicon (Si)	7440-21-3		15.176	mg	934598	27246
Die				supplier	metallisation	Aluminium (Al)	7429-90-5		0.039	mg	2402	70
Die				supplier	metallisation	Copper (Cu)	7440-50-8		0.454	mg	27959	815
Die				supplier	metallisation	Tantalum (Ta)	7440-25-7		0.038	mg	2340	68
Die				supplier	metallisation	Tungsten (W)	7440-33-7		0.005	mg	308	9
Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.061	mg	3757	110
Die				supplier	passivation	Silicon Oxide	7631-86-9		0.465	mg	28637	835
substrate	Other Organic Materials	129.615	mg	supplier	core material	Bismaleimide (B)	105391-33-1		7.301	mg	56328	13108
substrate				supplier	core material	Triazine (T)	25722-66-1		7.301	mg	56328	13108
substrate				supplier	core material	Fiber glass	65997-17-3		21.780	mg	168036	39102
substrate				supplier	core material	metal hydroxide	21645-51-2		0.495	mg	3819	889
substrate				supplier	core material	Zinc hydroxide	20427-58-1		0.149	mg	1150	268
substrate				supplier	core material	Thermosetting resin	54208-63-8		12.227	mg	94333	21952
substrate				supplier	core material	Calcium sulfate	7778-18-9		0.248	mg	1913	445
substrate				supplier	Solder mask	Baryum sulfate	7727-43-7		1.207	mg	9312	2167
substrate				supplier	Solder mask	Dipropylene glycol monomethyl	34590-94-8		0.121	mg	934	217
substrate				supplier	Solder mask	Talc containing no asbestiform fibers	14807-96-6		0.380	mg	2932	682
substrate				supplier	Solder mask	Silica crystalline	14808-60-7		0.054	mg	417	97
substrate				supplier	Solder mask	2-(2-Ethoxyethoxy)ethyl Acetate	112-15-2		5.068	mg	39100	9099
substrate				supplier	Solder mask	Acrylates derivative	407-47-6		5.188	mg	40026	9314
substrate				supplier	Solder mask	amine compound	trade secret		0.048	mg	370	86
substrate				supplier	metallisation	Copper (Cu)	7440-50-8		67.231	mg	518698	120702
substrate				supplier	metallisation	Nickel (Ni)	7440-02-0		0.646	mg	4984	1160
substrate				supplier	metallisation	Gold (Au)	7440-57-5		0.171	mg	1319	307
Die attach		3.516	mg	supplier	glue	Silver (Ag)	7440-22-4		2.725	mg	775028	4892
Die attach				supplier	glue	2,6-Diglycidyl phenyl allyl ether	EC 417-470-1		0.105	mg	29863	189
Die attach				supplier	glue	Epoxyde Bisphenol A Resin	25068-38-6		0.686	mg	195108	1232
Bonding wire	Copper & its alloys	1.022	mg	supplier	wire	Copper (Cu)	7440-50-8		1.002	mg	980431	1799
Bonding wire				supplier	wire	Palladium (Pd)	7440-05-3		0.018	mg	17613	32
Bonding wire				supplier	wire	Silver (Ag)	7440-22-4		0.002	mg	1957	4
encapsulation	Other Organic Materials	347.693	mg	supplier	mold compound	Biphenyl epoxy resin	85954-11-6		34.769	mg	99999	62422
encapsulation				supplier	mold compound	Phenol resin	205830-20-2		17.385	mg	50001	31212
encapsulation				supplier	mold compound	Quartz	14808-60-7		8.692	mg	24999	15605
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		283.371	mg	815003	508745
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		3.129	mg	8999	5617
encapsulation				supplier	mold compound	Magnesium dihydroxide	1309-42-8		0.347	mg	999	623
solder balls	Solder	58.912	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		57.892	mg	982686	103935
solder balls				supplier	solder alloy	Silver (Ag)	7440-22-4		0.707	mg	12001	1269
solder balls				supplier	solder alloy	Copper (Cu)	7440-50-8		0.295	mg	5007	530
solder balls				supplier	solder alloy	Nickel (Ni)	7440-02-0		0.012	mg	204	22
solder balls				supplier	solder alloy	Lead (Pb)	7439-92-1		0.006	mg	102	11