



## 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>	2016-04-01
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	Refer to "Supplier Comment" section
<b>Contact Phone *</b>	Refer to "Supplier Comment" section	<b>Contact Email *</b>	Refer to "Supplier Comment" section
<b>Authorized Representative *</b>	Emilio Castelli	<b>Representative Title</b>	APG MD 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
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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
SPC560B54L5B4E0X	B91A*FB64BDQ	A	MA1A	2016-04-01
Amount		UoM	Unit type	ST ECOPACK Grade
1315.00		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	
NAC	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	20x20x1.4	144	FLAT	
Comment				

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	<b>true</b>
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-16th June 2014				
Query				Response
The product does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				<b>true</b>
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	B91A*FB64BDQ					
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	27.273	mg	supplier	die	Silicon (Si)	7440-21-3		23.092	mg	846698	17560
Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.043	mg	1577	33
Die				supplier	metallization	Copper (Cu)	7440-50-8		0.379	mg	13897	288
Die				supplier	metallization	Tantalum (Ta)	7440-25-7		3.165	mg	116049	2407
Die				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	37	1
Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	147	3
Die				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	110	2
Die				supplier	passivation	Silicon Nitride (SiN)	12033-89-5		0.096	mg	3520	73
Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.245	mg	8983	186
Die				supplier	glass coating	Glass: Silicon Dioxide (SiO2)	7631-86-9		0.245	mg	8983	186
Leadframe	Copper & its alloys	309.534	mg	supplier	alloy	Copper (Cu)	7440-50-8		299.540	mg	967713	227787
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		7.045	mg	22760	5357
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.424	mg	1370	322
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.369	mg	1192	281
Leadframe				supplier	tape	poly(4,4'-oxydiphenylene-pyromellitimide)	25036-53-7		0.078	mg	252	59
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		2.078	mg	6713	1580
Die attach		4.847	mg	supplier	glue or tape (choose)	Silver (Ag)	7440-22-4		3.818	mg	787704	2903
Die attach				supplier	glue or tape	Urethane acrylate oligomer	na		0.339	mg	69940	258
Die attach				supplier	glue or tape	Methacrylate	na		0.339	mg	69940	258
Die attach				supplier	glue or tape	Acrylate	na		0.339	mg	69940	258
Die attach				SVHC	glue or tape	NMP	872-50-4		0.012	mg	2476	9
Bonding wire				supplier	wire	Copper (Cu)	7440-50-8		1.040	mg	980207	791
Bonding wire				supplier	wire	Palladium (Pd)	7440-05-3		0.019	mg	17908	14
Bonding wire				supplier	wire	Silver (Ag)	7440-22-4		0.002	mg	1885	2
encapsulation		963.807	mg	supplier	mold compound	Epoxy Resin	Proprietary		70.523	mg	73171	53630
encapsulation				supplier	mold compound	Phenol Resin	Proprietary		70.523	mg	73171	53630
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		812.417	mg	842925	617808
encapsulation				supplier	mold compound	Quartz	14808-60-7		2.821	mg	2927	2145
encapsulation				supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		4.702	mg	4879	3576
encapsulation				supplier	mold compound	Carbon black	1333-86-4		2.821	mg	2927	2145
connections coating	Solder	8.022	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		8.022	mg	1000000	6100