



## 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

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2019-05-10
<b>Company Unique ID</b>	NL 008751171801		
<b>Contact Name *</b>	Refer to Supplier Comment section		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>	Rossana Bonaccorso	<b>Representative Title</b>	ADG 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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<b>Legal Statement</b>			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
STA8089FG	A0EG*V839BDG	A	ZY1A	2019-05-10
	Amount	UoM	Unit type	ST ECOPACK Grade
	135	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 ( in each organic material)			

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	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	7x7x0.85	144	Flat	
Comment	VFQFPN 7X7X1.0 56L PITCH 0.4			

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 : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

QueryList : California Prop65 list, dated 8th March 2019			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			TRUE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			FALSE
Substance	amount in product (mg)	Application	ppm in product

QueryList : REACH-15th January 2019				
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 Embedded article nor Homogeneous Material above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	AOEG*V839BDG					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	M-011 Other inorganic materials	7.957	mg	supplier	die	Silicon (Si)	7440-21-3		7.419	mg	932387	54956
				supplier	metallization	Aluminium (Al)	7429-90-5		0.056	mg	7038	415
				supplier	metallization	Copper (Cu)	7440-50-8		0.179	mg	22496	1326
				supplier	metallization	Nickel (Ni)	7440-02-0		0.001	mg	126	7
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.029	mg	3645	215
				supplier	metallization	Titanium (Ti)	7440-32-6		0.008	mg	1005	59
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	126	7
				supplier	Passivation	Silicon Nitride	12033-89-5		0.065	mg	8167	481
				supplier	Passivation	Silicon Oxide	7631-86-9		0.155	mg	19480	1148
				supplier	polymer die coating	PIXI Gamma-butyrolactone	96-48-0		0.044	mg	5530	326
Leadframe	Copper and its alloy	62.017	mg	supplier	alloy	Copper (Cu)	7440-50-8		58.710	mg	946676	434889
				supplier	alloy	Iron (Fe)	7439-89-6		1.415	mg	22816	10481
				supplier	alloy	Zinc (Zn)	7440-66-6		0.072	mg	1161	533
				supplier	alloy	Phosphorus (P)	7723-14-0		0.018	mg	290	133
				supplier	metallization	Silver (Ag)	7440-22-4		1.802	mg	29057	13348
				supplier	glue	Silver (Ag)	7440-22-4		0.728	mg	769556	5393
Die attach	Other organic materials	0.946	mg	supplier	glue	Bisphenol F type liquid epoxy resin	9003-36-5		0.051	mg	53911	378
				supplier	glue	Epoxy resin	Proprietary		0.048	mg	50740	356
				supplier	glue	P-Tertbutylphenyl glycidyl ether	3101-60-8		0.026	mg	27484	193
				supplier	glue	dicyandiamide	461-58-5		0.003	mg	3171	22
				supplier	glue	Silicon dioxide	7631-86-9		0.054	mg	57082	400
				supplier	glue	Modified Epoxy Resin	Proprietary		0.009	mg	9514	67
				supplier	glue	Poly[oxy[[2-oxiranyl]-1,2-cyclohexanediyl], a-	244772-00-7		0.009	mg	9514	67
				supplier	glue	Phenol-formaldehyde polymer	9003-35-4		0.009	mg	9514	67
				supplier	glue	Epoxy resin	25068-38-6		0.009	mg	9514	67
				supplier	wire	Gold (Au)	7440-57-5		0.168	mg	988235	1244
Bonding wires	Other inorganic materials	0.170	mg	supplier	wire	Palladium (Pd)	7440-05-3		0.002	mg	11765	14
				supplier	wire	Epoxy Resin A	25068-38-6		0.906	mg	14994	6711
Encapsulation	Other organic materials	60.425	mg	supplier	mold compound	Epoxy Resin B	Proprietary		0.906	mg	14994	6711
				supplier	mold compound	Phenol Resin	29690-82-2		3.021	mg	49996	22378
				supplier	mold compound	Silica Amorphous A	60676-86-0		48.342	mg	800033	358089
				supplier	mold compound	Silica Amorphous B	7631-86-9		6.042	mg	99991	44756
				supplier	mold compound	Metal Hydroxide	21645-51-2		0.604	mg	9996	4474
supplier	mold compound	Carbon Black	1333-86-4		0.604	mg	9996	4474				
Connection coating	Other inorganic materials	3.485	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		3.485	mg	1000000	25815