



## 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  <i>* : Required Field</i>

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-11-19
<b>Company Unique ID</b>	NL 008751171B01		
<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>	Giovanni Giacopello	<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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Legal Statement		
<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
SPC584B70E1EDCOX	B99I*FC70ABQ	A	1054	2018-11-19
	Amount	UoM	Unit type	ST ECOPACK Grade
	260.00	mg	Each	ECOPACK2
	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	
NA	NiPdAu	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	10-10-1	64	gull wing	
Comment	TQFP 64 10x10x1.0 1.0 ExPad Down			

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 25th May 2018			
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	0.80	Die - Leadframe	3081

QueryList : REACH-27th June 2018				
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	B991*FC70ABQ					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	40.136	mg	supplier	die	Silicon (Si)	7440-21-3		39.440	mg	982659	151692
				supplier	metallization	Aluminium (Al)	7429-90-5		0.083	mg	2068	319
				supplier	metallization	Copper (Cu)	7440-50-8		0.259	mg	6453	996
				supplier	metallization	Nickel (Ni)	7440-02-0		0.001	mg	25	4
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.042	mg	1046	162
				supplier	metallization	Titanium (Ti)	7440-32-6		0.007	mg	175	27
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	25	4
				supplier	Passivation	Silicon Oxide	7631-86-9		0.303	mg	7549	1165
				supplier	alloy	Copper (Cu)	7440-50-8		84.461	mg	988507	324850
				supplier	alloy	Iron (Fe)	7439-89-6		0.085	mg	995	327
Leadframe	M-004 Copper and its alloys	85.443	mg	supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.025	mg	292	96
				supplier	metallization	Nickel (Ni)	7440-02-0		0.800	mg	9363	3077
				supplier	metallization	Palladium (Pd)	7440-05-3		0.051	mg	597	196
				supplier	metallization	Gold (Au)	7440-57-5		0.021	mg	246	81
				supplier	glue	Silver (Ag)	7440-22-4		4.758	mg	894866	18300
				supplier	glue	isobornyl Methacrylate	7534-94-3		0.399	mg	75042	1535
Bonding wires	M-004 Copper and its alloys	0.812	mg	supplier	wire	Bismaleimide resin	Proprietary		0.160	mg	30092	615
				supplier	wire	Copper (Cu)	7440-50-8		0.812	mg	1000000	3123
				supplier	wire	Silica, vitreous	60676-86-0		110.843	mg	863990	426319
Encapsulation	M-011 Other inorganic materials	128.292	mg	supplier	mold compound	Epoxy Resin	25068-38-6		9.622	mg	75001	37008
				supplier	mold compound	Phenol Resin	29690-82-2		6.415	mg	50003	24673
				supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		0.642	mg	5004	2469
				supplier	mold compound	Quartz	14808-60-7		0.385	mg	3001	1481
				supplier	mold compound	Carbon black	1333-86-4		0.385	mg	3001	1481