



Materials Declaration Form

IPC	1752	Version	2
Form Type *	Distribute		
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2020-05-27
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	giovanni giacopello	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
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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
SPC58NN84E7RMHBR	B9A4*FG84ACQ	A	1054	2020-05-27
	Amount	UoM	Unit type	ST ECOPACK Grade
	1650	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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy	DM00504707	

Package Designator	Size	Nbr of instances	Shape	
QFP	24.00,24.00,1.40	176	gull wing	
Comment	LQFP 176L 24X24X1.4 Exposed Pad. MDF valid for CPs: SPC58NN84E7RMHBR,SPC58NN84E7RMHBY,SPC58NN84E7RSHBR,SPC58NN84E7YMHBR			

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	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 3rd January 2020			
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	13.13	die - leadframe	7958

QueryList : REACH-16th January 2020				
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 :						Mfr Item Name	B9A4*FG84ACQ					
note : Substance present with less 0.001mg will not be declared in this document												
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	69.882	mg	supplier	die	Silicon(Si)	7440-21-3		68.271	mg	976946	41377
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.191	mg	2733	116
				supplier	metallisation	Copper(Cu)	7440-50-8		0.599	mg	8572	363
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.002	mg	29	1
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.097	mg	1388	59
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.017	mg	243	10
				supplier	metallisation	Tungsten(W)	7440-33-7		0.003	mg	43	2
				supplier	passivation	Silicon oxide	7631-86-9		0.702	mg	10046	425
				supplier	alloy & coating	Copper(Cu)	7440-50-8		410.773	mg	941021	248954
				supplier	alloy & coating	Nickel(Ni)	7440-02-0		13.128	mg	30074	7956
Leadframe	M-004 Copper and its alloys	436.518	mg	supplier	alloy & coating	Magnesium(Mg)	7439-95-4		0.641	mg	1468	388
				supplier	alloy & coating	Silicon(Si)	7440-21-3		2.776	mg	6359	1682
				supplier	alloy & coating	Palladium(Pd)	7440-05-3		0.019	mg	44	12
				supplier	alloy & coating	Gold(Au)	7440-57-5		0.002	mg	5	1
				supplier	tape	Polyimide film	proprietary		4.589	mg	10513	2781
				supplier	tape	Polyethylene-terephthalate film	proprietary		3.121	mg	7150	1892
				supplier	tape	Acrylonitrilebutadiene rubber	proprietary		0.551	mg	1262	334
				supplier	tape	Bismaleimide	proprietary		0.459	mg	1052	278
				supplier	tape	Phenol type resin	proprietary		0.459	mg	1052	278
				supplier	glue	Silver(Ag)	7440-22-4		6.043	mg	892087	3662
Die attach	M-011 Other inorganic materials	6.774	mg	supplier	glue	isobornyl Methacrylate	7534-94-3		0.508	mg	74993	308
				supplier	glue	Bismaleimide resin	proprietary		0.203	mg	29968	123
				supplier	glue	Epoxy cyclohexylethyltrimethoxysilane	3388-04-3		0.020	mg	2952	12
Bonding wires	M-004 Copper and its alloys	2.432	mg	supplier	wire	Copper(Cu)	7440-50-8		2.432	mg	1000000	1474
Encapsulation	M-011 Other inorganic materials	1134.394	mg	supplier	mold compound	Silica vitreous	60676-86-0		980.116	mg	864000	594010
				supplier	mold compound	Epoxy type resin	proprietary		85.080	mg	75000	51564
				supplier	mold compound	Phenol type resin	proprietary		56.720	mg	50000	34376
				supplier	mold compound	Mercaptopropyl trimethoxysilane	4420-74-0		5.672	mg	5000	3438
				supplier	mold compound	Quartz	14808-60-7		3.403	mg	3000	2062
supplier	mold compound	Carbon black	1333-86-4		3.403	mg	3000	2062				