



## Materials Declaration Form

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

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2020-06-18</b>
<b>Company Unique ID</b>	<b>NL 008751171B01</b>		
<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>	<b>giovanni giacopello</b>	<b>Representative Title</b>	<b>ADG MD CHAMPION</b>
<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>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
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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
SPC564A80L7CGMCI	N91T*FA80CAQ	A	1054	2020-06-18
	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		
3	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00662637	



Package Designator	Size	Nbr of instances	Shape	
QFP	24.00,24.00,1.40	176	gull wing	
Comment	LQFP 176 24x24x1.4. MDF valid for CPs: SPC564A80L7C2FAR,SPC564A80L7CFAR,SPC564A80L7CFAY,SPC564A80L7CFBR,SPC564A80L7CFBY,SPC564A80L7CGMCI,SPC564A80L7CGMCI,SPC564A80L7COBR,SPC564A80L7COBY			

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 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	12.81	die - leadframe	7764

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	N91T*FA80CAQ					
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	111.511	mg	supplier	die	Silicon(Si)	7440-21-3		109.461	mg	981615	66341
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.098	mg	879	59
				supplier	metallisation	Copper(Cu)	7440-50-8		0.869	mg	7793	527
				supplier	metallisation	Cobalt(Co)	7440-48-4		0.002	mg	18	1
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.281	mg	2520	170
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.010	mg	90	6
				supplier	metallisation	Tungsten(W)	7440-33-7		0.007	mg	63	4
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.221	mg	1982	134
				supplier	passivation	Silicon oxide	7631-86-9		0.562	mg	5040	341
				Leadframe	M-004 Copper and its alloys	442.975	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8	
supplier	alloy & coating	Nickel(Ni)	7440-02-0						12.810	mg	28918	7764
supplier	alloy & coating	Magnesium(Mg)	7439-95-4						0.641	mg	1447	388
supplier	alloy & coating	Silicon(Si)	7440-21-3						2.776	mg	6267	1682
supplier	alloy & coating	Silver (Ag)	7440-22-4						0.355	mg	801	215
supplier	tape	Polyimide film	proprietary						7.810	mg	17631	4733
supplier	tape	Polyethylene-terephthalate film	proprietary						5.311	mg	11989	3219
supplier	tape	Acrylonitrilebutadiene rubber	proprietary						0.937	mg	2115	568
supplier	tape	Bismaleimide	proprietary						0.781	mg	1763	473
supplier	tape	Phenol type resin	proprietary						0.781	mg	1763	473
Die attach		8.058	mg	supplier	glue or tape (choose)	Silver(Ag)	7440-22-4		6.365	mg	789898	3858
				supplier	glue or tape	Urethane acrylate oligomer	proprietary		0.645	mg	80045	391
				supplier	glue or tape	Isobornyl methacrylate	7534-94-3		0.645	mg	80045	391
				supplier	glue or tape	Hexanediol diacrylate	13048-33-4		0.040	mg	4964	24
				supplier	glue or tape	other	proprietary		0.363	mg	45048	220
Bonding wires	M-004 Copper and its alloys	1.342	mg	supplier	wire	Copper(Cu)	7440-50-8		1.303	mg	970939	790
				supplier	wire	Palladium(Pd)	7440-05-3		0.039	mg	29061	24
Encapsulation	M-011 Other inorganic materials	1075.998	mg	supplier	mold compound	Silica vitreous	60676-86-0		929.662	mg	864000	563432
				supplier	mold compound	Epoxy type resin	proprietary		80.700	mg	75000	48909
				supplier	mold compound	Phenol type resin	proprietary		53.800	mg	50000	32606
				supplier	mold compound	Mercaptopropyl trimethoxysilane	4420-74-0		5.380	mg	5000	3261
				supplier	mold compound	Quartz	14808-60-7		3.228	mg	3000	1956
supplier	mold compound	Carbon black	1333-86-4		3.228	mg	3000	1956				
connections coating	Solder	10.116	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		10.116	mg	1000000	6131