



## 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>2020-10-22</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**

While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

**Legal Statement**

<b>Supplier Acceptance *</b>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
------------------------------	-------------	----------------------------	-----------------

**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
SPC560B60L7B6E0X	B91T*FB64BD9	A	1054	2020-10-22
	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	DM00636707	



Package Designator	Size	Nbr of instances	Shape	
QFP	24.00,24.00,1.40	176	gull wing	
Comment	LQFP 176 24x24x1.4			

QueryList : RoHS Directive 2011/65/EU-July 2011 Annex II amended by Delegated 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 2020/363_ March 2020	
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	diei - leadframe	7764

QueryList : REACH-25th June 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

Responsible metals sourcing	
Query	Response
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.	true
The following metals are present is the component :	Tantalum, Tin, Tungsten,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

Material Composition Declaration :						Mfr Item Name	B91T*FB64BD9					
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	23.987	mg	supplier	die	Silicon(Si)	7440-21-3		23.092	mg	962688	13998
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.043	mg	1793	26
				supplier	metallisation	Copper(Cu)	7440-50-8		0.379	mg	15800	230
				supplier	metallisation	Cobalt(Co)	7440-48-4		0.001	mg	42	1
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.123	mg	5128	75
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.005	mg	208	3
				supplier	metallisation	Tungsten(W)	7440-33-7		0.003	mg	125	2
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.096	mg	4002	58
				supplier	passivation	Silicon oxide	7631-86-9		0.245	mg	10214	148
				Leadframe	M-004 Copper and its alloys	435.975	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8	
supplier	alloy & coating	Nickel(Ni)	7440-02-0						12.810	mg	29382	7764
supplier	alloy & coating	Magnesium(Mg)	7439-95-4						0.641	mg	1470	388
supplier	alloy & coating	Silicon(Si)	7440-21-3						2.776	mg	6367	1682
supplier	alloy & coating	Silver (Ag)	7440-22-4						0.355	mg	814	215
supplier	tape	Polyimide film	proprietary						4.310	mg	9886	2612
supplier	tape	Polyethylene-terephthalate film	proprietary						2.931	mg	6723	1776
supplier	tape	Acrylonitrilebutadiene rubber	proprietary						0.517	mg	1186	313
supplier	tape	Bismaleimide	proprietary						0.431	mg	989	261
supplier	tape	Phenol type resin	proprietary						0.431	mg	989	261
Die attach	M-011 Other inorganic materials	3.440	mg	supplier	glue	Silver(Ag)	7440-22-4		2.718	mg	790116	1647
				supplier	glue	Urethane acrylate oligomer	proprietary		0.275	mg	79942	167
				supplier	glue	Isobornyl methacrylate	7534-94-3		0.275	mg	79942	167
				supplier	glue	Hexanediol diacrylate	13048-33-4		0.017	mg	4942	10
				supplier	glue	other	proprietary		0.155	mg	45058	94
Bonding wires	M-004 Copper and its alloys	1.389	mg	supplier	wire	Copper(Cu)	7440-50-8		1.348	mg	970482	817
				0	supplier	wire	Palladium(Pd)	7440-05-3		0.041	mg	29518
Encapsulation	M-011 Other inorganic materials	1175.093	mg	supplier	mold compound	Silica vitreous	60676-86-0		957.113	mg	814500	580068
				supplier	mold compound	Silicon oxide	7631-86-9		88.132	mg	75000	53413
				supplier	mold compound	Epoxy type resin	proprietary		88.132	mg	75000	53413
				supplier	mold compound	Phenol type resin	proprietary		35.253	mg	30000	21365
				supplier	mold compound	Carbon black	1333-86-4		6.463	mg	5500	3917
connections coating	Solder	10.116	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		10.116	mg	1000000	6131