



Materials Declaration Form

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

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2020-11-09
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

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

Supplier Acceptance *	true	Legal Declaration *	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
SPC560B50L3B4E0X	A91L*FB50BF9	A	1054	2020-11-09
	Amount	UoM	Unit type	ST ECOPACK Grade
	681	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, annealed	Copper Alloy	DM00684230	

Package Designator	Size	Nbr of instances	Shape	
QFP	14.00,14.00,1.00	100	gull wing	
Comment	LQFP 100 14x14x1.4 1. MDF valid for CPs: SPC560B50L3B4E0X,SPC560B50L3B6E0X,SPC560B50L3C6E0X,SPC560B50L3C6E0Y			

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			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-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	A91L*FB50BF9					
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	32.973	mg	supplier	die	Silicon(Si)	7440-21-3		32.367	mg	981622	47497
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.029	mg	880	43
				supplier	metallisation	Copper(Cu)	7440-50-8		0.257	mg	7794	377
				supplier	metallisation	Cobalt(Co)	7440-48-4		0.001	mg	30	1
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.083	mg	2517	122
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.003	mg	91	4
				supplier	metallisation	Tungsten(W)	7440-33-7		0.002	mg	61	3
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.065	mg	1971	95
				supplier	passivation	Silicon oxide	7631-86-9		0.166	mg	5034	244
				Leadframe	M-004 Copper and its alloys	192.738	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8	
supplier	alloy & coating	Iron(Fe)	7439-89-6						3.977	mg	20634	5836
supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8						0.239	mg	1240	351
supplier	alloy & coating	Zinc(Zn)	7440-66-6						0.208	mg	1079	305
supplier	alloy & coating	Silver (Ag)	7440-22-4						0.035	mg	182	51
supplier	tape	Polyimide film	proprietary						9.604	mg	49829	14094
supplier	tape	Polyethylene-terephthalate film	proprietary						6.531	mg	33885	9584
supplier	tape	Acrylonitrilebutadiene rubber	proprietary						1.152	mg	5977	1691
supplier	tape	Bismaleimide	proprietary						0.960	mg	4981	1409
supplier	tape	Phenol type resin	proprietary						0.960	mg	4981	1409
Die attach	M-011 Other inorganic materials	2.640	mg	supplier	glue	Silver(Ag)	7440-22-4		2.363	mg	895076	3468
				supplier	glue	Isobornyl Methacrylate	7534-94-3		0.145	mg	54924	213
				supplier	glue	Bismaleimide resin	proprietary		0.106	mg	40152	156
				supplier	glue	Epoxy cyclohexylethyltrimethoxysilane	3388-04-3		0.013	mg	4924	19
				supplier	glue	Spacer polymer	proprietary		0.013	mg	4924	19
Bonding wires	M-004 Copper and its alloys	0.737	mg	supplier	wire	Copper(Cu)	7440-50-8		0.715	mg	970149	1049
				supplier	wire	Palladium(Pd)	7440-05-3		0.022	mg	29851	32
Encapsulation	M-011 Other inorganic materials	446.679	mg	supplier	mold compound	Silica vitreous	60676-86-0		363.820	mg	814500	533899
				supplier	mold compound	Silicon oxide	7631-86-9		33.501	mg	75000	49162
				supplier	mold compound	Epoxy type resin	proprietary		33.501	mg	75000	49162
				supplier	mold compound	Phenol type resin	proprietary		13.400	mg	29999	19664
				supplier	mold compound	Carbon black	1333-86-4		2.457	mg	5501	3606
connections coating	Solder	5.673	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		5.673	mg	1000000	8325