



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 *	2020-10-15
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
SPC560P44L3CEFAR	F91L*FP50BE9	A	1054	2020-10-15
	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		
3	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00684225	



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: SPC560P44L3BEAAY,SPC560P44L3CEFAR			

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	F91L*FP50BE9					
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	31.920	mg	supplier	die	Silicon(Si)	7440-21-3		31.332	mg	981578	45981
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.028	mg	877	41
				supplier	metallisation	Copper(Cu)	7440-50-8		0.249	mg	7801	365
				supplier	metallisation	Cobalt(Co)	7440-48-4		0.001	mg	31	1
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.081	mg	2538	119
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.003	mg	94	4
				supplier	metallisation	Tungsten(W)	7440-33-7		0.002	mg	63	3
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.063	mg	1974	92
				supplier	passivation	Silicon oxide	7631-86-9		0.161	mg	5044	236
				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	2.563	mg	supplier	glue	Silver(Ag)	7440-22-4		2.293	mg	894655	3365
				supplier	glue	isobornyl Methacrylate	7534-94-3		0.141	mg	55014	207
				supplier	glue	Bismaleimide resin	proprietary		0.103	mg	40187	151
				supplier	glue	Epoxy cyclohexylethyltrimethoxysilane	3388-04-3		0.013	mg	5072	19
				supplier	glue	Spacer polymer	proprietary		0.013	mg	5072	19
Bonding wires	M-004 Copper and its alloys	0.693	mg	supplier	wire	Copper(Cu)	7440-50-8		0.673	mg	971140	988
				0	supplier	wire	Palladium(Pd)	7440-05-3		0.020	mg	28860
Encapsulation	M-011 Other inorganic materials	447.853	mg	supplier	mold compound	Silica vitreous	60676-86-0		364.776	mg	814499	535302
				supplier	mold compound	Silicon oxide	7631-86-9		33.589	mg	75000	49291
				supplier	mold compound	Epoxy type resin	proprietary		33.589	mg	75000	49291
				supplier	mold compound	Phenol type resin	proprietary		13.436	mg	30001	19717
				supplier	mold compound	Carbon black	1333-86-4		2.463	mg	5500	3614
connections coating	Solder	5.673	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		5.673	mg	1000000	8325