



## Material declaration form

General information			
IPC	1752	Version	2
Form type*	Distribute		
Sectionals*	Material information	Subsectionals*	A-D
	Manufacturing information	*: Required Field	
Supplier information			
Company name*	STMicroelectronics	Response date*	2024-08-28
Authorized representative*	giovanni giacopello	Representative title	MDRF
Representative phone*	Refer to Supplier Comment section	Representative email*	Refer to Supplier Comment section
Supplier comment	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			
Supplier acceptance *	true	Legal declaration*	Standard
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 omprehensive 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				
Manufacturing item number	Manufacturing item name	Version	Manufacturing site	Date
SR6P3C490D42FX0R	L2F6*FX62AAQ	A	1054	2024-08-28
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	1035.0	mg	Each	ECOPACK® 2
<b>Comment</b>	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant			

Manufacturing information				
J-STD-020 MSL rating	Classification temperature	Number of reflow cycles		
3	260	3		
Bulk solder termination	Terminal plating	Terminal base alloy	Comment	
Not Applicable	Not Applicable	Copper Alloy	DM01087342	
Package designator	Package Size	Number of instances	Shape	
BGA	17.00x17.00x1.70	292	Bulk solder	
<b>Comment</b>	FPBGA 17X17X1.8 292 B0.55 P0.8. MDF valid for CPs: SR6P3C490D42FX0R,SR6P3C490D42FX0Y			

QueryList : RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 March 2015		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		Response
1 - Product(s) meets EU ELV requirement without any exemptions		true
2 - Product(s) meets EU ELV requirements by application of the selected exemption(s)		false
Exemption Id.	Description	

QueryList : California Prop65 list, dated 17th Nov 2023			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
Nickel	0.557	Die	538

QueryList : REACH-27th June 2024				Response
<b>QUERY</b>				<b>Response</b>
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 Homogeneous Material above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	Amount in homogeneous material (mg)	Application - homogeneous material	ppm in homogeneous material

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update		Response
The Product does contain at least one of the substances listed in Chemical Control Act		false



<b>QueryList : Responsible metals sourcing</b>				<b>Response</b>
<b>QUERY</b>				<b>Response</b>
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.				true
<b>QueryList : China GB 33372-2020 Limit standard for volatile organic compounds content in adhesives - 4 March 2020 application date 1st December 2020</b>				<b>Response</b>
The product contains adhesives identified under GB 33372				false
<b>QueryList:Stockholm Convention Persistent Organic Pollutants</b>				<b>Response</b>
Product is compliant with Stockholm Convention Persistent Organic Pollutants Annex I				true
<b>QueryList:EUSRR Directive</b>				<b>Response</b>
Product contains hazardous materials listed in EUSRR Annex II				False
<b>PFAS/PTFE Declaration</b>				<b>Response</b>
The product is containing at least one of the following PFAS substance: Polytetrafluoroethylene,Thiophenium, Triphenylsulfonium nonaflate, Trifluoroacetic anhydride				False
<b>BPA Declaration</b>				<b>Response</b>
Product does not contain Bisphenol A (Isopropylidenediphenol)				False
<b>Montreal Protocol</b>				<b>Response</b>
Product does not contain Ozone Depleting Substances based on Annex I to Annex VII of EU REGULATION (EC) No 1005/2009				True
<b>Environmental Protection Agency:Toxic Substances Control Act (TSCA). Section 6(h)</b>				<b>Response</b>
Product does not contain Phenol, isopropylated, phosphate (3:1)				True



Material composition declaration : note : Substance present with less 0.001mg will not be declared in this document						Manufacturing item name	L2F6*FX62AAQ									
Homogeneous material	Material group	Mass	Unit of measure	Level	Substance category	Substance	CAS	Exempt	Mass	Unit of measure	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Die	M-011 Other inorganic materials	112.824	mg	supplier	die	Silicon(Si)	7440-21-3		108.104	mg	958166	104452				
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.170	mg	1507	164				
				supplier	metallisation	Copper(Cu)	7440-50-8		1.628	mg	14430	1573				
				supplier	metallisation	GeSbTe	proprietary		0.006	mg	53	6				
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.099	mg	877	96				
				supplier	metallisation	Palladium(Pd)	7440-05-3		0.006	mg	53	6				
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.022	mg	195	21				
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.006	mg	53	6				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.180	mg	1595	174				
				supplier	passivation	Silicon Oxide	7631-86-9		1.425	mg	12630	1377				
				supplier	polymer coating	polyimide	proprietary		1.178	mg	10441	1138				
				supplier	laminite	Fiber glass	65997-17-3		91.389	mg	201444	88299				
				Substrate	M-015 Other organic materials	453.670	mg	supplier	laminite	Epoxy resin	61788-97-4		19.849	mg	43752	19178
supplier	laminite	Triazine (T)	25722-66-1						22.342	mg	49247	21586				
supplier	laminite	Epoxy resin	223769-10-6						7.005	mg	15441	6768				
supplier	laminite	Calcium carbonate	471-34-1						28.020	mg	61763	27072				
supplier	laminite	Amorphous silica	7631-86-9						40.679	mg	89666	39303				
supplier	laminite	Metal hydroxide	proprietary						3.139	mg	6919	3033				
SVHC	laminite	Bisphenol A	80-05-7						0.028	mg	62	27				
supplier	laminite	Oxiranemethanamine compound	110656-67-2						0.227	mg	500	219				
supplier	laminite	Bisphenol F type epoxy resin	9003-36-5						0.175	mg	386	169				
supplier	laminite	Epoxyde bisphenol A resin	25068-38-6						0.489	mg	1078	472				
supplier	laminite	Acrylic resin	9003-01-4						17.019	mg	37514	16443				
supplier	laminite	Barium sulfate	7727-43-7						2.364	mg	5211	2284				
supplier	laminite	Talc	14807-96-6						1.182	mg	2605	1142				
supplier	laminite	Additive	proprietary						0.709	mg	1563	685				
	M-004 Copper and its alloys							supplier	laminite	Copper(Cu)	7440-50-8		218.604	mg	481857	211212
	M-006 Nickel and its alloys							California 65	laminite	Nickel(Ni)	7440-02-0		0.382	mg	842	369
								supplier	laminite	Gold(Au)	7440-57-5		0.068	mg	150	66
Die attach-1	M-015 Other organic materials	5.996	mg					supplier	glue	Silver(Ag)	7440-22-4		4.719	mg	787025	4559
								supplier	glue	Ditrimethylpropane tetraacrylate	94108-97-1		1.079	mg	179953	1043
								supplier	glue	Diglycidyl phenyl allyl ether	EC417-470-1		0.180	mg	30020	174
				supplier	glue	Mequinol	150-76-5		0.018	mg	3002	17				
Bonding wire	M-004 Copper and its alloys	1.459	mg	supplier	wire	Copper(Cu)	7440-50-8		1.409	mg	965730	1361				
				supplier	wire	Palladium(Pd)	7440-05-3		0.050	mg	34270	48				
Encapsulation	M-015 Other organic materials	271.816	mg	supplier	mold compound	Epoxy resin A	Proprietary		2.718	mg	10000	2626				
				supplier	mold compound	Phenol Resin	Proprietary		2.718	mg	9999	2626				
				supplier	mold compound	Metal Hydroxide	Proprietary		2.718	mg	9999	2626				
				supplier	mold compound	Epoxy resin B	1675-54-3		13.591	mg	50001	13131				
				supplier	mold compound	Silica(Amorphous) A	60676-86-0		203.862	mg	750000	196968				
				supplier	mold compound	Silica(Amorphous) B	7631-86-9		43.491	mg	160002	42020				
				supplier	mold compound	Carbon Black	1333-86-4		2.718	mg	9999	2626				
Solder balls	Solder	189.235	mg	supplier	solder alloy	Tin(Sn)	7440-31-5		176.649	mg	933489	170675				
				supplier	solder alloy	Silver(Ag)	7440-22-4		7.192	mg	38006	6949				
				supplier	solder alloy	Copper(Cu)	7440-50-8		1.514	mg	8001	1463				
				California 65	solder alloy	Nickel(Ni)	7440-02-0		0.076	mg	402	73				
				supplier	solder alloy	Antimony(Sb)	7440-36-0		0.019	mg	100	18				
				supplier	solder alloy	Bismuth(Bi)	7440-69-9		3.785	mg	20002	3657				