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 ***	**13-07-2023**
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 *	**Material Declaration champion**	**Representative Title**	**Material Declaration 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**

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 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.

Signature Not
Verified

Digitally signed by
MDF Champion
Date: 2023.07.13
08:34:16 +08:00

Product				
Mfr Item Number	**Mfr Item Name**	**Version**	**Mfr Site**	**Date**
STM32MP133CAF3	254O*501XXXY	A	9991	13-07-2023
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	370.00	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 ; if coating is used or other bulk termaination : add in comments	NAC	Copper Alloy	**SACN305**	

Package Designator	**Size**	**Nbr of instances**	**Shape**	
BGA	11x11	320	bulk solder	
Comment	Package : B0EC TFBGA 11X11 320L PITCH 0.5 MM DM00699790			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 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 : REACH-10 Jun 2022	
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

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						**Mfr Item Name**	**254O*501XXXY**				6000000.0	1000000.6
Homogeneous Material	**Material Group**	**Mass**	**UoM**	**Level**	**Substance Category**	**Substance**	**CAS**	**Exempt**	**Mass**	**UoM**	**Concentration in homogeneous material (ppm)**	**Concentration in product (ppm)**
Die or dies	M-011 Other inorganic materials	7.106	mg	supplier	die	Silicon (Si)	7440-21-3		6.586	mg	926822	17800
				supplier	metallization	Aluminium (Al)	7429-90-5		0.058	mg	8162	157
				supplier	metallization	Copper (Cu)	7440-50-8		0.171	mg	24064	462
				supplier	metallization	Nickel (Ni)	7440-02-0		0.001	mg	141	3
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.029	mg	4081	78
				supplier	metallization	Titanium (Ti)	7440-32-6		0.007	mg	985	19
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	141	3
				supplier	Passivation	Silicon Nitride	12033-89-5		0.041	mg	5770	111
				supplier	Passivation	Silicon Oxide	7631-86-9		0.212	mg	29834	573
Substrate (A293670)	M-011 Other inorganic materials	106.251	mg	supplier	BT-substrate	Thermosetting resin (Inorganic filler)	Proprietary		8.500	mg	80000	22973
				supplier	BT-substrate	Glass cloth	65997-17-3		34.000	mg	320000	91893
				supplier	BT-substrate	Copper foil	7440-50-8		38.250	mg	360000	103379
				supplier	Solder mask	3-methoxy-3-methylbutylacetate	103429-90-9		5.313	mg	50000	14358
				supplier	Solder mask	Morpholinederivative	Trade secret		1.063	mg	10000	2872
				supplier	Solder mask	Barium Sulfate	7727-43-7		12.750	mg	120000	34460
				supplier	Solder mask	Talc containing no as bestiform fibers	14807-96-6		0.531	mg	5000	1436
				supplier	Solder mask	Dipropylene glycol monomethyl ether	34590-94-8		5.844	mg	55000	15794
DAF (2100AC)	M-011 Other inorganic materials	3.890	mg	supplier	film	Copper (Cu)	7440-50-8		3.059	mg	786250	8266
				supplier	film	Silver (Ag)	7440-22-4		0.204	mg	52500	552
				supplier	film	2,2-dimethyl-1,3-propanediyl bismethacrylate	1985-51-9		0.165	mg	42500	447
				supplier	film	4-allyl-2,6-bis (2,3-epoxypropyl)phenol; 4-allyl-	Trade secret		0.219	mg	56205	591
				supplier	film	2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]met	94108-97-1		0.152	mg	39195	412
				supplier	film	tert-butyl peroxyneodecanoate	26748-41-4		0.088	mg	22500	237
				supplier	film	Hydroquinone	123-31-9		0.003	mg	850	9
Bonding wire (CuPd)	Precious metals	2.181	mg	supplier	Bonding wire	Copper (Cu)	7440-50-8		2.106	mg	965500	5691
				supplier	Bonding wire	Palladium (Pd)	7440-05-3		0.068	mg	31000	183
				supplier	Bonding wire	Gold (Au)	78440-57-5		0.008	mg	3500	21
Encapsulation (KE-G1250AAS)	M-011 Other inorganic materials	224.309	mg	supplier	Molding Compound	Epoxy resin	Trade secret		8.972	mg	40000	24250
				supplier	Molding Compound	Silica(Fused)	60676-86-0,7631-86-9		204.121	mg	910000	551679
				supplier	Molding Compound	Phenol resin	Trade secret		10.318	mg	46000	27887
				supplier	Molding Compound	Carbon Black	1333-86-4		0.897	mg	4000	2425
Solderballs (SACN305)	Solder	26.263	mg	supplier	Solder	Metallic Tin	7440-31-5		25.331	mg	964500	68461
				supplier	Solder	Silver Atom	7440-22-4		0.788	mg	30000	2129
				supplier	Solder	Metallic Copper	7440-50-8		0.131	mg	5000	355
				supplier	Solder	Nickel Element	7440-02-2		0.013	mg	500	35