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 ***	**28-10-2023**
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: 2023.10.28 12:29:15 +08:00

Product

Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32MP131DAG7	224M*501XXXY	A	9991	28-10-2023
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	500.00	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	9x9	289	bulk solder	
Comment	Package : B0EB TFBGA 9X9 289L PITCH 0.5 MM DM00699787			

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-14th June 2023				
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**	**224M*501XXXY**				6000002.0	1000000.0
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	7.220	mg	supplier	die	Silicon (Si)	7440-21-3		6.700	mg	927978	13400
				supplier	metallization	Aluminium (Al)	7429-90-5		0.058	mg	8033	116
				supplier	metallization	Copper (Cu)	7440-50-8		0.171	mg	23684	342
				supplier	metallization	Nickel (Ni)	7440-02-0		0.001	mg	139	2
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.029	mg	4017	58
				supplier	metallization	Titanium (Ti)	7440-32-6		0.007	mg	970	14
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	139	2
				supplier	Passivation	Silicon Nitride	12033-89-5		0.041	mg	5679	82
				supplier	Passivation	Silicon Oxide	7631-86-9		0.212	mg	29363	424
Substrate (A29368)	M-011 Other inorganic materials	180.145	mg	supplier	BT-substrate	Thermosetting resin (Inorganic filler)	Proprietary		24.590	mg	136500	49180
				supplier	BT-substrate	Glass cloth	65997-17-3		56.926	mg	316000	113852
				supplier	BT-substrate	Copper foil	7440-50-8		75.120	mg	417000	150241
				supplier	Solder mask	2-benzyl-2-dimethylamino-4-morpholinobutyr	119313-12-1		8.197	mg	45500	16393
				supplier	Solder mask	Naphtha (petroleum), heavy aromatic	64742-94-5		8.107	mg	45000	16213
				supplier	Solder mask	TALC (CONTAINING NO ASBESTOS FIBRES)	14807-96-6		6.035	mg	33500	12070
				supplier	Solder mask	1,3,5-Triazine-2,4,6-triamine	108-78-1		1.171	mg	6500	2342
DAF (2100AC)	M-011 Other inorganic materials	3.890	mg	supplier	film	Copper (Cu)	7440-50-8		3.059	mg	786250	6117
				supplier	film	Silver (Ag)	7440-22-4		0.204	mg	52500	408
				supplier	film	2,2-dimethyl-1,3-propanediyl bismethacrylate	1985-51-9		0.165	mg	42500	331
				supplier	film	A mixture of: 4-allyl-2,6-bis (2,3-epoxypropyl)p	Proprietary		0.219	mg	56205	437
				supplier	film	2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]met	94108-97-1		0.152	mg	39195	305
				supplier	film	tert-butyl peroxyneodecanoate	26748-41-4		0.088	mg	22500	175
				supplier	film	Hydroquinone	123-31-9		0.003	mg	850	7
Bonding wire (Cu)	Precious metals	4.606	mg	supplier	Bonding wire	Copper (Cu)	7440-50-8		4.447	mg	965500	8894
				supplier	Bonding wire	Palladium (Pd)	7440-05-3		0.143	mg	31000	286
				supplier	Bonding wire	Gold (Au)	7440-57-5		0.016	mg	3500	32
Encapsulation (KE-G1250AAS)	M-011 Other inorganic materials	280.420	mg	supplier	Molding Compound	Silica(Fused)	60676-86-0,7631-86-9		252.378	mg	900000	504756
				supplier	Molding Compound	Epoxy resin	Proprietary		11.217	mg	40000	22434
				supplier	Molding Compound	Phenol resin	Proprietary		15.704	mg	56000	31407
				supplier	Molding Compound	Carbon Black	1333-86-4		1.122	mg	4000	2243
Solder balls (SACN305)	M-011 Other inorganic materials	23.719	mg	supplier	Matte Sn	Tin (Sn)	7440-31-5		22.877	mg	964500	45754
				supplier	Matte Sn	Silver(Ag)	7440-22-4		0.712	mg	30000	1423
				supplier	Matte Sn	Copper (Cu)	7440-50-8		0.119	mg	5000	237
				supplier	Matte Sn	Nickel (Ni)	7440-02-0		0.012	mg	500	24