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 ***	2022-06-06
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 *	MDG MD CHAMPION	**Representative Title**	MDG 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
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: 2022.09.12
14:19:34 +02:00

Product				
Mfr Item Number	**Mfr Item Name**	**Version**	**Mfr Site**	**Date**
ST33KTPM2X32CKE2	U3MG*T46CKE2	A	997G	2022-06-06
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	48.00	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**		
1	260	3		
bulk Solder Termination	**Terminal Plating**	**Terminal Base Alloy**	**Comment**	
Not Applicable; if coating is used or other bulk termination	Matt Tin	Copper Alloy		

Package Designator	**Size**	**Nbr of instances**	**Shape**	
UQFN	5x5x0.55mm	32		
Comment	Package : A0B8 UFQFPN 5X5X0.55 32L 0.5 MM PITCH 8202208			

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-17 Jan 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**	**U3MG*T46CKE2**				6000000.0	1015428.5
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	1.420	mg	supplier	die	Silicon (Si)	7440-21-3		1.267	mg	892254	26396
				supplier	metallization	Aluminium (Al)	7429-90-5		0.018	mg	12676	375
				supplier	metallization	Copper (Cu)	7440-50-8		0.057	mg	40141	1188
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.009	mg	6338	188
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	1408	42
				supplier	Passivation	Silicon Oxide	7631-86-9		0.067	mg	47183	1396
Leadframe-C7025 Ag	Copper & its alloys	21.510	mg	supplier	Alloy	Cu	7440-50-8		20.596	mg	957500	429088
					Alloy	Ni	7440-02-0		0.641	mg	29800	13354
					Alloy	Si	7440-21-3		0.140	mg	6500	2913
					Alloy	Mg	7439-95-4		0.032	mg	1500	672
					coating	Ag	7440-22-4		0.101	mg	4700	2106
Glue - 8600	M-011 Other inorganic materials	0.763	mg	supplier	Glue	Silver >= 99,9 % Ag as powder	7440-22-4		0.622	mg	815000	12961
					Glue	(Octahydro-4,7-methano-1H-indenediyl)bis(m	42594-17-2		0.046	mg	60000	954
					Glue	exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl met	7534-94-3		0.046	mg	60000	954
					Glue	Isobornyl acrylate	5888-33-5		0.046	mg	60000	954
					Glue	2-(3,4-Epoxycyclohexyl)ethyltrimethoxysilane	3388-04-3		0.004	mg	5000	80
Bonding wire - AuPdCu wire (APC)	M-011 Other inorganic materials	0.740	mg	supplier	Bonding wire	Copper	7440-50-8		0.714	mg	965000	15328
					Bonding wire	Palladium	7440-05-3		0.018	mg	24990	397
					Bonding wire	Gold	7440-57-5		0.007	mg	10000	159
					Bonding wire	Silver	7440-22-4		0.000	mg	10	0
Encapsulation - G700L Type TD	M-011 Other inorganic materials	21.776	mg	supplier	Molding compound	Epoxy Resin	Proprietary		1.089	mg	50000	23375
					Molding compound	Phenol Resin	Proprietary		0.588	mg	27000	12622
					Molding compound	Silica (Amorphous)A	60676-86-0		18.945	mg	870000	406723
					Molding compound	Silica (Amorphous)B	7631-86-9		1.089	mg	50000	23375
					Molding compound	Carbon Black	1333-86-4		0.065	mg	3000	1402
External plating	M-011 Other inorganic materials	1.790	mg	supplier	Matt Tin	Sn	7440-31-5		1.790	mg	1000000	38424