



## Materials Declaration Form

<b>IPC Form Type *</b>	1752 Distribute	<b>Version</b>	2
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D <i>* : Required Field</i>

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2023-12-07
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	Material Declaration champion	<b>Representative Title</b>	Material Declaration champion
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	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	
	<p>While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.</p>
Legal Statement	
<b>Supplier Acceptance *</b>	true
	<b>Legal Declaration *</b>
	Standard
<b>Legal Statement</b>	<p>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.</p>

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32U5F9NJH6Q	E1RM*476XXXZ	A	9991	2023-12-07
	Amount	UoM	Unit type	ST ECOPACK Grade
	496.00	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		 life.augmented
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used or other bulk termination : add in comments	NAC	Copper Alloy	SACN305	

Package Designator	Size	Nbr of instances	Shape	
BGA	13x13	216	bulk solder	
Comment	Package : A0L2 TFBGA 13X13X1.2 216L P 0.8 MM 8373526			

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	E1RM*476XXXZ				5999999.0	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	15.280	mg	supplier	die	Silicon (Si)	7440-21-3		14.162	mg	926832	28552				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.124	mg	8115	250				
				supplier	metallization	Copper (Cu)	7440-50-8		0.368	mg	24084	742				
				supplier	metallization	Nickel (Ni)	7440-02-0		0.002	mg	131	4				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.063	mg	4123	127				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.016	mg	1047	32				
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	131	4				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.088	mg	5759	177				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.455	mg	29777	917				
				Substrate (A313710)	Copper & its alloys	159.778	mg	supplier	BT-substrate	Thermosetting resin (Inorganic filler)	Non-disclosure		9.587	mg	60000	19328
supplier	BT-substrate	Glass cloth	65997-17-3						59.278	mg	371000	119511				
supplier	BT-substrate	Copper foil	7440-50-8						73.019	mg	457000	147215				
supplier	Solder mask	Solvent naphtha (petroleum), heavy arom	64742-94-5						5.672	mg	35500	11436				
supplier	Solder mask	Propanol, 1(or 2)-(2-methoxymethylethoxy)-	34590-94-8						5.592	mg	35000	11275				
supplier	Solder mask	Aromatic carbonyl compounds	Trade secret						5.353	mg	33500	10791				
supplier	Solder mask	Copper,[29H,31H-phthalocyaninato(2-)-.kappa	147-14-8						1.039	mg	6500	2094				
supplier	Solder mask	Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	128-37-0						0.240	mg	1500	483				
DAF (2100AC)	M-011 Other inorganic materials	8.326	mg					supplier	film	Copper (Cu)	7440-50-8		6.893	mg	827850	13897
								supplier	film	Silver (Ag)	7440-22-4		0.640	mg	76850	1290
				supplier	film	2,2-dimethyl-1,3-propanediyl bismethacrylate	1985-51-9		0.307	mg	36900	619				
				supplier	film	A mixture of: 4-allyl-2,6-bis (2,3-epoxypropyl)pe	Trade secret		0.224	mg	26900	452				
				supplier	film	2-[[[2,2-bis[[[(1-oxoallyl)oxy]methyl]butoxy]met	94108-97-1		0.216	mg	26000	436				
				supplier	film	tert-butyl peroxyneodecanoate	26748-41-4		0.042	mg	5000	84				
				supplier	film	Hydroquinone	123-31-9		0.004	mg	500	8				
Bonding wire (Au)	Precious metals	1.190	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		1.190	mg	1000000	2399				
Encapsulation (G1250AAS ULA)	M-011 Other inorganic materials	269.406	mg	supplier	Molding Compound	2,2'-(3,3',5,5'-Tetramethyl-1,1'-biphenyl)-4,4'	85954-11-6		10.776	mg	40000	21726				
				supplier	Molding Compound	Epoxy resin	Trade secret		242.465	mg	900000	488842				
				supplier	Molding Compound	Silica(Fused)	60676-86-0,7631-86-9		15.087	mg	56000	30417				
				supplier	Molding Compound	Phenol resin	Trade secret		1.078	mg	4000	2173				
Solder balls (SACN305)	Solder	42.021	mg	supplier	Solder	Tin (Sn)	7440-31-5		40.529	mg	964500	81712				
				supplier	Solder	Silver (Ag)	7440-22-4		1.261	mg	30000	2542				
				supplier	Solder	Copper (Cu)	7440-50-8		0.210	mg	5000	424				
				supplier	Solder	Nickel (Ni)	7440-02-2		0.021	mg	500	42				