



## 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>	13-07-2023
<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**


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Legal Statement			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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 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.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32G051F6P6	42YA*456XXXZ	A	9998	13-07-2023
	Amount	UoM	Unit type	ST ECOPACK Grade
	72.00	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
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable; if coating is used or other bulk termination	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
TSSOP	4.4x6.5	20	L bend	
Comment	Package : YA TSSOP 20 BODY 4.4 PITCH 0.65 0087225			

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	42YA*456XXXZ				6999980.0	1000013.9
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	3.052	mg	supplier	die	Silicon (Si)	7440-21-3		2.891	mg	947248	40153
				supplier	metallization	Aluminium (Al)	7429-90-5		0.008	mg	2621	111
				supplier	metallization	Copper (Cu)	7440-50-8		0.068	mg	22280	944
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.022	mg	7208	306
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	328	14
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	328	14
				supplier	Passivation	Silicon Nitride	12033-89-5		0.017	mg	5570	236
Leadframe (C194)	Copper and its alloy	27.072	mg	supplier	Passivation	Silicon Oxide	7631-86-9		0.044	mg	14417	611
				supplier	alloy	Copper (Cu)	7440-50-8		26.395	mg	975000	366600
				supplier	alloy	Iron (Fe)	7439-89-6		0.636	mg	23500	8836
				supplier	alloy	Zinc (Zn)	7440-66-6		0.032	mg	1200	451
Leadframe plating (Ag)	M-011 Other inorganic materials	0.356	mg	supplier	alloy	Metallic Phosphorus (P)	7723-14-0		0.008	mg	300	113
				supplier	coating	Silver (Ag)	7440-22-4		0.356	mg	1000000	4944
				supplier	glue	Silver (Ag)	7440-22-4		0.173	mg	750000	2396
Glue epoxy (8290)	M-011 Other inorganic materials	0.230	mg	supplier	glue	Reaction product: bisphenol-F-(epichlorhydrin)	9003-36-5		0.016	mg	70000	224
				supplier	glue	Fatty acids, C18-unsatd., dimers, polymers with	68475-94-5		0.009	mg	40000	128
				supplier	glue	.gamma. Butyrolactone	96-48-0		0.009	mg	40000	128
				supplier	glue	Polyoxyalkylene amine	9046-10-0		0.009	mg	40000	128
				supplier	glue	Epoxy Resin	Proprietary		0.009	mg	40000	128
				supplier	glue	Copper Oxide	1317-38-0		0.002	mg	10000	32
				supplier	glue	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8		0.002	mg	10000	32
Bonding wire (Au)	M-011 Other inorganic materials	0.376	mg	supplier	bonding wire	Gold (Au)	7440-57-5		0.372	mg	990480	5173
				supplier	bonding wire	Palladium (Pd)	7440-05-3		0.004	mg	9500	50
Encapsulation (EME-G700LS)	M-011 Other inorganic materials	39.868	mg	supplier	molding compound	Epoxy Resin	Proprietary		3.389	mg	85000	47066
				supplier	molding compound	Phenol Resin	205830-20-2		1.595	mg	40000	22149
				supplier	molding compound	Silica Amorphous A	60676-86-0		31.496	mg	790000	437441
				supplier	molding compound	Silica Amorphous B	7631-86-9		3.189	mg	80000	44298
Finishing (Sn)	M-011 Other inorganic materials	1.047	mg	supplier	molding compound	Carbon Black	1333-86-4		0.199	mg	5000	2769
				supplier	coating	Tin (Sn)	7440-31-5		1.047	mg	1000000	14542