



Materials Declaration Form

IPC	1752	Version	2
Form Type *	Distribute		
Sectionals *	Material Info	Subsectionals *	A-D
	Manufacturing Info		* : Required Field


Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2022-10-02
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		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 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
STM32G441CBY6TR STM8S105C4T6TR	T2GV*468XXX	A	996S	2022-10-02
	Amount	UoM	Unit type	ST ECOPACK Grade
	11.46	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	
Tin/Silver/Copper (SAC405)	NAC	NAC		

Package Designator	Size	Nbr of instances	Shape	
WLCSP	Not applicable	49	No lead	
Comment	Package : B03Q WLCSP 49 DIE 468 P 0.4 DM00356605			

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 - 8th July 2021				
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	TZGV*468XXX				9000000.0	1000008.4
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	8.083	mg	supplier	die	Silicon (Si)	7440-21-3		7.746	mg	958308	676046
				supplier	metallization	Aluminium (Al)	7429-90-5		0.016	mg	1979	1396
				supplier	metallization	Copper (Cu)	7440-50-8		0.143	mg	17691	12481
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.046	mg	5691	4015
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	247	175
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	124	87
				supplier	Passivation	Silicon Nitride	12033-89-5		0.036	mg	4454	3142
Plating Seed layer 1	M-011 Other inorganic materials	0.013	mg	supplier	Passivation	Silicon Oxide	7631-86-9		0.093	mg	11506	8117
				supplier	Alloy	Ti	7440-32-6		0.003	mg	200963	226
				supplier	Alloy	Cu	7440-50-8		0.010	mg	799037	898
Re-passivatipon layer	M-011 Other inorganic materials	0.082	mg	supplier	Polymer	4-Butyrolactone	96-48-0		0.074	mg	900000	6457
				supplier	Polymer	1-Methoxy-2-propyl acetate	108-65-6		0.008	mg	100000	717
Redistribution Layer	M-011 Other inorganic materials	0.339	mg	supplier	Alloy	Cu	7440-50-8		0.339	mg	1000000	29626
Plating Seed layer 2	M-011 Other inorganic materials	0.005	mg	supplier	Alloy	Ti	7440-32-6		0.001	mg	200963	90
				supplier	Alloy	Cu	7440-50-8		0.004	mg	799037	357
Re-passivatipon layer	M-011 Other inorganic materials	0.091	mg	supplier	Polymer	4-Butyrolactone	96-48-0		0.082	mg	900000	7174
				supplier	Polymer	1-Methoxy-2-propyl acetate	108-65-6		0.009	mg	100000	797
UBM	M-011 Other inorganic materials	0.176	mg	supplier	Alloy	Cu	7440-50-8		0.176	mg	1000000	15348
Solder ball	Solder	2.322	mg	supplier	Solder	Sn	7440-31-5		2.217	mg	955000	193503
				supplier	Solder	Ag	7440-22-4		0.093	mg	40000	8105
				supplier	Solder	Cu	7440-50-8		0.012	mg	5000	1013
Back Side Coating	M-011 Other inorganic materials	0.347	mg	supplier	Polymer	Polybutylene terephthalate (PBT)	25038-59-9		0.225	mg	650000	19655
				supplier	Polymer	Silica	Proprietary		0.068	mg	195000	5896
				supplier	Polymer	Proprietary Material-Other Epoxy resins	Proprietary		0.026	mg	75000	2268
				supplier	Polymer	Proprietary Material-Other Acrylic resins	Proprietary		0.026	mg	75000	2268