



Materials Declaration Form

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


Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2022-12-10
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	<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
STM32G473MEY6TR	T1IY*469XXX	A	9965	2022-12-10
	Amount	UoM	Unit type	ST ECOPACK Grade
	19.52	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	81	No lead	
Comment	Package : B068 WLCSP 81L DIE 469 PITCH 0.4 DM00429421			

QueryList : RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 March 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	T11Y*469XXX				8000000.0	899997.3
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	13.831	mg	supplier	die	Silicon (Si)	7440-21-3		13.243	mg	957487	678266
				supplier	metallization	Aluminium (Al)	7429-90-5		0.028	mg	2024	1434
				supplier	metallization	Copper (Cu)	7440-50-8		0.249	mg	18003	12753
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	72	51
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.081	mg	5856	4149
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	217	154
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	145	102
				supplier	Passivation	Silicon Nitride	12033-89-5		0.063	mg	4555	3227
				supplier	Passivation	Silicon Oxide	7631-86-9		0.161	mg	11641	8246
				Plating Seed layer 1	M-011 Other inorganic materials	0.009	mg	supplier	Alloy	Ti	7440-32-6	
Re-passivatipon layer	M-011 Other inorganic materials	0.145	mg	supplier	Alloy	Cu	7440-50-8		0.007	mg	799037	349
				supplier	Polymer	Proprietary Polymer	96-48-0		0.116	mg	800000	5945
				supplier	Polymer	Additives	Proprietary		0.029	mg	200000	1486
Redistribution Layer	M-011 Other inorganic materials	0.532	mg	supplier	Alloy	Cu	7440-50-8		0.532	mg	1000000	27224
Plating Seed layer 2	M-011 Other inorganic materials	0.020	mg	supplier	Alloy	Ti	7440-32-6		0.004	mg	200963	207
				supplier	Alloy	Cu	7440-50-8		0.016	mg	799037	825
Re-passivatipon layer	M-011 Other inorganic materials	0.165	mg	supplier	Polymer	Proprietary Polymer	96-48-0		0.148	mg	900000	7589
				supplier	Polymer	Additives	Proprietary		0.016	mg	100000	843
				supplier	Alloy	Cu	7440-50-8		0.293	mg	1000000	14996
UBM	M-011 Other inorganic materials	0.293	mg	supplier	Alloy	Cu	7440-50-8		0.293	mg	1000000	14996
Solder ball SAC405	Solder	3.838	mg	supplier	Solder	Sn	7440-31-5		3.665	mg	955000	187678
				supplier	Solder	Ag	7440-22-4		0.154	mg	40000	7861
				supplier	Solder	Cu	7440-50-8		0.019	mg	5000	983
Back Side Coating LC2850	M-011 Other inorganic materials	0.694	mg	supplier	Polymer	Polybutylene terephthalate (PBT)	25038-59-9		0.451	mg	650000	23102
				supplier	Polymer	Silica	Proprietary		0.135	mg	195000	6931
				supplier	Polymer	Proprietary Material-Other Epoxy resins	Proprietary		0.052	mg	75000	2666
				supplier	Polymer	Proprietary Material-Other Acrylic resins	Proprietary		0.052	mg	75000	2666
				supplier	Polymer	Carbon black	1333-86-4		0.003	mg	5000	178