Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	**Response Date ***	17-10-2023
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	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: 2023.10.17 12:40:05 +08:00

Product				
Mfr Item Number	**Mfr Item Name**	**Version**	**Mfr Site**	**Date**
STM32G473MBT6	759X*469XXXX	A	998Z	17-10-2023
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	523.70	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**		
3	260	3		
bulk Solder Termination	**Terminal Plating**	**Terminal Base Alloy**	**Comment**	
Not Applicable; if coating is used or other bulk termination	Tin (Sn), immersion	Copper Alloy		

Package Designator	**Size**	**Nbr of instances**	**Shape**	
QFP	12x12	80	L bend	
Comment	Package : 9X LQFP 80 12X12X1.4 - 1.0 7400088			

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-14th June 2023

Query	Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH	**FALSE**

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**	**759X*469XXXX**				6000001.0	1000000.3
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	15.438	mg	supplier	die	Silicon (Si)	7440-21-3		14.850	mg	961912	28356
				supplier	metallization	Aluminium (Al)	7429-90-5		0.028	mg	1814	53
				supplier	metallization	Copper (Cu)	7440-50-8		0.249	mg	16129	475
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	65	2
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.081	mg	5247	155
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	194	6
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	130	4
				supplier	Passivation	Silicon Nitride	12033-89-5		0.063	mg	4081	120
				supplier	Passivation	Silicon Oxide	7631-86-9		0.161	mg	10429	307
Glue epoxy (3230)	M-011 Other inorganic materials	2.067	mg	Supplier	Metals	Silver (Ag)	7440-22-4		1.685	mg	815000	3217
				Supplier	Plastics/polymers	2,2'-[Methylenebis(phenyleneoxymethylene)]b	39817-09-9		0.062	mg	30000	118
				Supplier	Organic Compounds	Dihydro-3-(tetrapropenyl)furan-2,5-dione	26544-38-7		0.062	mg	30000	118
				Supplier	Organic Compounds	Epoxy resin	Proprietary		0.062	mg	30000	118
				Supplier	Organic Compounds	Dodecyloxirane	3234-28-4		0.062	mg	30000	118
				Supplier	Organic Compounds	Hexahydromethylphthalic anhydride	25550-51-0		0.062	mg	30000	118
				Supplier	Organic Compounds	Epoxy resin modifier	Proprietary		0.062	mg	30000	118
				Supplier	Metallic compounds	Copper oxide	1317-38-0		0.010	mg	5000	20
Encapsulation (EME-G631SHQ)	M-011 Other inorganic materials	352.124	mg	Supplier	Plastics/polymers	Epoxy Resin A	Trade Secret		7.395	mg	21000	14120
				Supplier	Plastics/polymers	Epoxy Resin B	Trade Secret		7.395	mg	21000	14120
				Supplier	Plastics/polymers	Phenol Resin	Trade Secret		19.719	mg	56000	37653
				Supplier	Glass	Silica(Amorphous)A	60676-86-0		274.815	mg	780450	524760
				Supplier	Glass	Silica(Amorphous)B	7631-86-9		40.607	mg	115320	77539
				Supplier	Non-metals	Carbon Black	1333-86-4		2.194	mg	6230	4189
Bonding Wire (Au)	Bonding Wire	0.971	mg	Supplier	Metals	Gold (Au)	7440-57-5		0.971	mg	1000000	1855
External Platin (Sn)	M-011 Other inorganic materials	1.797	mg	Supplier	Metals	Tin (Sn)	7440-31-5		1.797	mg	1000000	3432
Leadframe (C194 + Ag)	Copper & its alloys	151.300	mg	Supplier	Metals	Copper (Cu)	7440-50-8		147.094	mg	972200	280876
				Supplier	Metals	Iron (Fe)	7439-89-6		3.465	mg	22900	6616
				Supplier	Metals	Zinc (Zn)	7440-66-6		0.227	mg	1500	433
				Supplier	Metals	Phophorus (P)	7723-14-0		0.045	mg	300	87
				Supplier	Metals	Silver (Ag)	7440-22-4		0.469	mg	3100	896