




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 *	31-10-2023
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	<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
STM32F401CUB6 STM32F401CUB6TR	72MI*423XXXZ	A	998Z	31-10-2023
	Amount	UoM	Unit type	ST ECOPACK Grade
	102.52	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
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	Tin (Sn), immersion	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	7x7x0.55	48	flat	
Comment	Package : A0B9 UFQFPN 7X7X0.55 48L 0.5 MM PITCH 8202210			

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				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	72MI*423XXZ				6000000.0	1000007.8
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	2.527	mg	supplier	die	Silicon (Si)	7440-21-3		2.110	mg	834982	20582
				supplier	metallization	Aluminium (Al)	7429-90-5		0.029	mg	11476	283
				supplier	metallization	Copper (Cu)	7440-50-8		0.190	mg	75188	1853
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	396	10
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.026	mg	10289	254
				supplier	metallization	Tungsten (W)	7440-33-7		0.085	mg	33637	829
				supplier	Passivation	Silicon Nitride	12033-89-5		0.022	mg	8706	215
				supplier	Passivation	Silicon Oxide	7631-86-9		0.064	mg	25326	624
				supplier	Metals	Silver (Ag)	7440-22-4		0.735	mg	855000	7166
				Glue Epoxy (8290)	M-011 Other inorganic materials	0.859	mg	Supplier	Plastics/polymers	Epoxy resin 1	Trade Secret	
Supplier	Organic Compounds	Epoxy resin 2	Trade Secret						0.017	mg	20000	168
Supplier	Organic Compounds	.gamma.-Butyrolactone	96-48-0						0.026	mg	30000	251
Supplier	Organic Compounds	Epoxy resin 3	Trade Secret						0.017	mg	20000	168
Supplier	Organic Compounds	Amine	Trade Secret						0.017	mg	20000	168
Supplier	Metallic compounds	Copper oxide	1317-38-0						0.026	mg	30000	251
Supplier	Organic Compounds	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8						0.004	mg	5000	42
Supplier	Organic Compounds	Epoxy Resin A	Trade Secret						0.762	mg	21000	7432
Supplier	Organic Compounds	Epoxy Resin B	Trade Secret						0.762	mg	21000	7432
Supplier	Organic Compounds	Phenol Resin A	Trade Secret						0.762	mg	21000	7432
Encapsulation (EME G770)	M-011 Other inorganic materials	36.281	mg	Supplier	Glass	Silica(Amorphous)A	60676-86-0		28.316	mg	780450	276199
				Supplier	Glass	Silica(Amorphous)B	7631-86-9		4.184	mg	115320	40811
				Supplier	Organic Compounds	Carbon Black	1333-86-4		0.226	mg	6230	2205
				Supplier	Metallic compounds	Metal Hydroxide	Trade Secret		0.508	mg	14000	4955
				Supplier	Organic Compounds	Phenol Resin B	Trade Secret		0.762	mg	21000	7432
				Supplier	Metals	Gold (Au)	7440-57-5		0.742	mg	1000000	7238
				Supplier	Metals	Tin (Sn)	7440-31-5		1.078	mg	1000000	10519
Gold Wire (Au)	Bonding Wire	0.742	mg	Supplier	Metals	Copper (Cu)	7440-50-8		55.975	mg	917140	545994
Plating (Sn)	M-011 Other inorganic materials	1.078	mg	Supplier	Metals	Nickel (Ni)	7440-02-0		1.373	mg	22500	13395
Leadframe (C7025 + Ag)	Copper & its alloys	61.032	mg	Supplier	Metals	Silicon (Si)	7440-21-3		0.159	mg	2600	1548
				Supplier	Metals	Magnesium (Mg)	7439-95-4		0.070	mg	1150	685
				Supplier	Metals	Silver (Ag)	7440-22-4		3.455	mg	56610	33701