



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 *	2022-08-12
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
STM32G431R8T6	745W*468XXX	A	998Z	2022-08-12
	Amount	UoM	Unit type	ST ECOPACK Grade
	363.09	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	Tin (Sn), immersion	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	10x10	64	L bend	
Comment	Package : 5W LQFP 64 10x10x1.4 1 0051434			

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	745W*468XXXX				9999999.0	999994.2
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	8.862	mg	Supplier	die	Silicon (Si)	7440-21-3		8.525	mg	961972	23479
				Supplier	metallization	Aluminium (Al)	7429-90-5		0.016	mg	1805	44
				Supplier	metallization	Copper (Cu)	7440-50-8		0.143	mg	16136	394
				Supplier	metallization	Tantalum (Ta)	7440-25-7		0.046	mg	5191	127
				Supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	226	6
				Supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	113	3
				Supplier	Passivation	Silicon Nitride	12033-89-5		0.036	mg	4062	99
				Supplier	Passivation	Silicon Oxide	7631-86-9		0.093	mg	10494	256
Glue epoxy_3230_henkel	M-011 Other inorganic materials	1.187	mg	Supplier	Metals	Silver	7440-22-4		0.967	mg	815000	2664
				Supplier	Plastics/polymers	2,2'-(Methylenebis(phenyleneoxymethylene))	39817-09-9		0.036	mg	30000	98
				Supplier	Organic Compounds	Dihydro-3-(tetrapropenyl)furan-2,5-dione	26544-38-7		0.036	mg	30000	98
				Supplier	Organic Compounds	Epoxy resin	Proprietary		0.036	mg	30000	98
				Supplier	Organic Compounds	Dodecylloxirane	3234-28-4		0.036	mg	30000	98
				Supplier	Organic Compounds	Hexahydromethylphthalic anhydride	25550-51-0		0.036	mg	30000	98
				Supplier	Organic Compounds	Epoxy resin modifier	Proprietary		0.036	mg	30000	98
				Supplier	Metallic compounds	Copper oxide	1317-38-0		0.006	mg	5000	16
Encapsulation_eme-g631shq_sumitoh	M-011 Other inorganic materials	246.219	mg	Supplier	Plastics/polymers	Epoxy Resin A	Trade Secret		5.171	mg	21000	14240
				Supplier	Plastics/polymers	Epoxy Resin B	Trade Secret		5.171	mg	21000	14240
				Supplier	Plastics/polymers	Phenol Resin	Trade Secret		13.788	mg	56000	37975
				Supplier	Glass	Silica(Amorphous)A	60676-86-0		192.162	mg	780450	529237
				Supplier	Glass	Silica(Amorphous)B	7631-86-9		28.394	mg	115320	78201
				Supplier	Non-metals	Carbon Black	1333-86-4		1.534	mg	6230	4225
Wire_Auha3_Heraeus	Bonding Wire	1.083	mg	Supplier	Metals	Gold	7440-57-5		1.083	mg	1000000	2984
Plating Anode_Pure Tin_Asahi	M-011 Other inorganic materials	1.438	mg	Supplier	Metals	Tin	7440-31-5		1.438	mg	1000000	3960
Leadframe_C194+Ag_Mitsui	Copper & its alloys	104.300	mg	Supplier	Metals	Copper	7440-50-8		101.400	mg	972200	279269
				Supplier	Metals	Iron	7439-89-6		2.388	mg	22900	6578
				Supplier	Metals	Zinc	7440-66-6		0.156	mg	1500	431
				Supplier	Non-Metals	Phosphorus	7723-14-0		0.031	mg	300	86
				Supplier	Metals	Silver	7440-22-4		0.323	mg	3100	890