



Material declaration form

General Information			
IPC	1752	Version	2
Form type*	Distribute		
Sectionals*	Material information	Subsectionals*	A-D
	Manufacturing information		*: Required Field

Supplier Information			
Company name*	STMicroelectronics	Response Date*	2025-07-08
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*	MDG CHAMPION	Representative title	MDGMaterial 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
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	Manufacturing site	date
STM32G431RBI3	542I*468XXXX	A	9996	2025-07-08
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	27	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL rating	Classification temperature	Number of reflow cycles		
3	260	3		
Bulk solder termination	Terminal plating	Terminal base alloy	Comment	
Tin - 3.5Ag	Not Applicable	NAC	0	
Package designator	Package size	Number of instances	Shape	
BGA	5x5	64	Bulk solder	
Comment	Package : A019 UFBGA 5X5X0.6 64L P 0.5 MM 8526322			

QueryList : RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 March 2015			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-21st January 2025				Response
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
,	#N/A			



Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	5421468XXX		27.0200		6000000.0	1000000.0
Homogeneous material	Material group	Mass	Unit of measure	Level	Substance category	Substance	CAS	Exempt	Mass	Unit of measure	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or dies	M-011 Other inorganic materials	1.773	mg	supplier	die	Silicon (Si)	7440-21-3		1.703	mg	960597	63032.51
				supplier	metallization	Aluminium (Al)	7429-90-5		0.003	mg	1876	123.10
				supplier	metallization	Copper (Cu)	7440-50-8		0.030	mg	16686	1094.90
				supplier	metallization	Cobalt (Co)	7440-48-4		0.000	mg	67	4.40
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.010	mg	5428	356.17
				supplier	metallization	Titanium (Ti)	7440-32-6		0.000	mg	201	13.19
				supplier	metallization	Tungsten (W)	7440-33-7		0.000	mg	134	8.79
Substrate (101427659)	Other organic materials	8.340	mg	supplier	Passivation	Silicon Nitride	12033-89-5		0.007	mg	4222	277.04
				supplier	Passivation	Silicon Oxide	7631-86-9		0.019	mg	10789	707.95
				supplier	CORE	Fibrous-Glass-Wool	65997-17-3		1.174	mg	140762.1818	43447.69
				supplier	CORE	Formaldehyde Polymer with (Chloromethyl)Oxirane	28906-96-9		0.299	mg	35828.50909	11058.84
				supplier	CORE	Triazine	25722-66-1		0.299	mg	35828.50909	11058.84
				supplier	CORE	Silicon dioxide	7631-86-9		0.730	mg	87580.8	27032.71
				supplier	COPPER FOIL	Copper (Cu)	7440-50-8		2.502	mg	300000	92598.08
				supplier	SOLDERMASK (AUS320)	Cured Resin	Proprietary		1.385	mg	166118.1055	51274.06
				supplier	SOLDERMASK (AUS320)	Phthalocyanine Blue	147-14-8		0.004	mg	440.0479616	135.83
				supplier	SOLDERMASK (AUS320)	Organic Pigment	Proprietary		0.004	mg	440.0479616	135.83
				supplier	SOLDERMASK (AUS320)	Silica	Proprietary		0.009	mg	1100.119904	339.56
				supplier	SOLDERMASK (AUS320)	Barium sulfate	7727-43-7		0.382	mg	45784.98801	14125.83
				supplier	SOLDERMASK (AUS320)	Talc	14807-96-6		0.039	mg	4620.503597	1426.17
				supplier	SOLDERMASK (AUS320)	Antifoamer and Leveling Agent	Proprietary		0.013	mg	1540.167866	475.39
				supplier	NI PLATING	Nickel (Ni)	7440-02-0		0.136	mg	16306.95444	5033.31
				supplier	AU PLATING	Gold (Au)	7440-57-5		1.365	mg	163669.0647	50518.13
				supplier	GLUE	Synthetic Rubber	Proprietary		0.116	mg	400000	4293.12
				supplier	GLUE	Amorphous Silica	7631-86-9		0.145	mg	500000	5366.40
				supplier	GLUE	Phenol Resin	Proprietary		0.029	mg	100000	1073.28
Bonding Wire (Cu)	Other inorganic materials	0.152	mg	supplier	BONDING WIRE	Copper (Cu)	7440-50-8		0.148	mg	970500	5459.51
				supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.004	mg	28000	157.51
Solderballs (Sn3.5Ag)	Other inorganic materials	1.987	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.000	mg	1500	8.44
				supplier	SOLDERBALL	Tin (Sn)	7440-31-5		1.917	mg	965000	70964.29
Encapsulation (G770FE)	Other organic materials	14.478	mg	supplier	SOLDERBALL	Silver (Ag)	7440-22-4		0.070	mg	35000	2573.83
				supplier	MOLDING COMPOUND	Epoxy Resin A	Proprietary		0.434	mg	30000	16074.76
				supplier	MOLDING COMPOUND	Epoxy Resin B	1675-54-3		0.434	mg	30000	16074.76
				supplier	MOLDING COMPOUND	Phenol Resin	Proprietary		0.666	mg	46000	24647.96
				supplier	MOLDING COMPOUND	Silica(Amorphous) A	60676-86-0		10.482	mg	724000	387937.53
				supplier	MOLDING COMPOUND	Silica(Amorphous) B	7631-86-9		2.172	mg	150000	80373.80
				supplier	MOLDING COMPOUND	Aluminum Hydroxide	21645-51-2		0.217	mg	15000	8037.38
				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		0.072	mg	5000	2679.13