



Material declaration form

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

Supplier Information			
Company name*	STMicroelectronics	Response Date*	2025-06-25
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
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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
STM32L431KBU3	77MG*435XXXZ	A	998Z	2025-06-25
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	50	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	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	0	
Package designator	Package size	Number of instances	Shape	
QFN	5x5	32	Flat	
Comment	Package : A0B8 UFQFPN 5X5X0.55 32L 0.5 MM PITCH 8202208			

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	77MG*435XXXZ		49.7509		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	3.511	mg	supplier	die	Silicon (Si)	7440-21-3		3.171	mg	903162	63737.61				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.016	mg	4557	321.59				
				supplier	metallization	Copper (Cu)	7440-50-8		0.144	mg	41014	2894.42				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.047	mg	13386	944.67				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	570	40.23				
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	285	20.11				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.037	mg	10538	743.68				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.093	mg	26488	1869.30				
				Leadframe (C7025 + Ag)	Metals	27.000	mg	supplier	Metals	Nickel (Ni)	7440-02-0		0.793	mg	29365	15936.50
								supplier	Glass	Silicon (Si)	7440-21-3		0.176	mg	6500	3527.58
supplier	Metals	Magnesium (Mg)	7439-95-4						0.042	mg	1565	849.33				
supplier	Metals	Silver (Ag)	7440-22-4						1.701	mg	63000	34190.36				
supplier	Metals	Copper (Cu)	7440-50-8						24.288	mg	899570	488200.29				
supplier	Metals	Silver (Ag)	7440-22-4						0.770	mg	807329	15485.51				
Glue Epoxy (8290)	M-011 Other inorganic materials	0.954	mg	supplier	Metals	Silver (Ag)	7440-22-4		0.770	mg	807329	15485.51				
				supplier	Organic Compounds	Epoxy Resin 1	Proprietary		0.033	mg	34750	666.55				
				supplier	Organic Compounds	Epoxy Resin 2	Proprietary		0.033	mg	34750	666.55				
				supplier	Organic Compounds	Epoxy Resin 3	Proprietary		0.033	mg	34750	666.55				
				supplier	Organic Compounds	Amine	Proprietary		0.028	mg	28879	553.93				
				supplier	Metallic compounds	Copper Oxide	1317-38-0		0.052	mg	54129	1038.26				
				supplier	Organic Compounds	1,4-Bis(2,3-epoxypropoxy) butane	2425-79-8		0.005	mg	5413	103.83				
Encapsulation (G770)	M-011 Other inorganic materials	16.356	mg	supplier	Organic Compounds	Epoxy Resin A	Proprietary		0.324	mg	19837.23296	6521.77				
				supplier	Organic Compounds	Epoxy Resin B	Proprietary		0.324	mg	19837.23296	6521.77				
				supplier	Organic Compounds	Phenol Resin A	Proprietary		0.324	mg	19837.23296	6521.77				
				supplier	Organic Compounds	Phenol Resin B	Proprietary		0.324	mg	19837.23296	6521.77				
				supplier	Glass	Silica (Amorphous) A	60676-86-0		11.980	mg	732451.6785	240803.82				
				supplier	Glass	Silica (Amorphous) B	7631-86-9		2.662	mg	162767.0397	53511.96				
				supplier	Alkali	Metal Hydroxide	Proprietary		0.324	mg	19837.23296	6521.77				
				supplier	Additives	Carbon Black	1333-86-4		0.092	mg	5955.116989	1839.47				
Bonding Wire (Au)	Bonding Wire	0.270	mg	supplier	Metals	Gold (Au)	7440-57-5		0.270	mg	1000000	5423.62				
External Plating (Sn)	Metals	1.659	mg	supplier	Metals	Tin (Sn)	7440-31-5		1.659	mg	1000000	33355.42				