



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*	2024-09-24
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
STM32L4P5VET6	241L*471XXXZ	A	9991	2024-09-24
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	677	mg	Each	ECOPACK® 3

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	Copper Alloy	0	
Package designator	Package size	Number of instances	Shape	
QFP	14x14	100	Gull wing	
Comment	Package : 1L LQFP 100 14x14x1.4 1 0086901			

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-27th June 2024				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	241L*471XXXZ		676.7656		600000.0	100000.0
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	17.586	mg	supplier	die	Silicon (Si)	7440-21-3		17.159	mg	975755	25355.04482
				supplier	metallization	Aluminium (Al)	7429-90-5		0.020	mg	1151	29.90879533
				supplier	metallization	Copper (Cu)	7440-50-8		0.181	mg	10288	267.3342193
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.058	mg	3309	85.98453845
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	144	3.741847548
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	72	1.870923774
				supplier	Passivation	Silicon Nitride	12033-89-5		0.046	mg	2590	67.30128576
				supplier	Passivation	Silicon Oxide	7631-86-9		0.118	mg	6691	173.8659857
				Leadframe (C7025 + Ag)	Copper & its alloys	190.000	mg	supplier	Leadframe	Copper (Cu)	7440-50-8	
supplier	Leadframe	Nickel (Ni)	7440-02-0						5.890	mg	31000	8703.161199
supplier	Leadframe	Silicon (Si)	7440-21-3						2.280	mg	12000	3368.965625
supplier	Leadframe	Magnesium (Mg)	7439-95-4						0.570	mg	3000	842.2414064
supplier	Leadframe	Silver (Ag)	7440-22-4						6.650	mg	35000	9826.149741
Glue Epoxy (EN-4900G)	Precious metals	3.634	mg	supplier	Glue or tape	Silver (Ag)	7440-22-4		2.831	mg	779000	4182.731355
				supplier	Glue or tape	Cresol Novolac Epoxy Resins	Proprietary		0.091	mg	25000	134.2339973
				supplier	Glue or tape	Bisphenol A Diacrylate	Proprietary		0.222	mg	61000	327.5309534
				supplier	Glue or tape	Dicyclopentyl group containing Acrylate	Proprietary		0.200	mg	55000	295.314794
				supplier	Glue or tape	Butadiene copolymer	Proprietary		0.036	mg	10000	53.69359891
				supplier	Glue or tape	Polybutadiene epoxidized derivative	Proprietary		0.200	mg	55000	295.314794
				supplier	Glue or tape	Peroxy Ketals	Proprietary		0.018	mg	5000	26.84679946
				supplier	Glue or tape	Substitutedalkoxyalkyl trimethoxysilane	Proprietary		0.018	mg	5000	26.84679946
				supplier	Glue or tape	Methacrylate multialkoxy-substituted alkyl ester	Proprietary		0.018	mg	5000	26.84679946
				Bonding wire (Cu)	Precious metals	1.287	mg	supplier	Bonding wire	Copper (Cu)	7440-50-8	
supplier	Bonding wire	Palladium (Pd)	7440-05-3						0.040	mg	31000	58.9524656
supplier	Bonding wire	Silver (Ag)	7440-22-4						0.005	mg	3500	6.655923535
Encapsulation (EME-G631SH)	M-011 Other inorganic materials	443.359	mg	supplier	Molding Compound	2,2'-(3,3',5,5'-Tetramethyl-(1,1'-biphenyl)-4,4'-diyl)	85954-11-6		17.734	mg	40000	26204.583
				supplier	Molding Compound	Epoxy resin	Proprietary		8.867	mg	20000	13102.2915
				supplier	Molding Compound	Phenol Resin	Proprietary		33.252	mg	75000	49133.59312
				supplier	Molding Compound	Silica(Amorphous) A	60676-86-0		314.563	mg	709500	464803.7909
				supplier	Molding Compound	Silica(Amorphous) B	7631-86-9		66.504	mg	150000	98267.18623
				supplier	Molding Compound	Carbon black	1333-86-4		2.438	mg	5500	3603.130162
External Plating (Sn)	M-011 Other inorganic materials	20.900	mg	supplier	Matte Sn	Tin (Sn)	7440-31-5		20.898	mg	999900	30879.09668
				supplier	Matte Sn	Impurities	Proprietary		0.002	mg	100	3.08821849