



## 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*	2024-11-20
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 : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**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
STM32L496WGY6PST	T343*461XXXB	A	996S	2024-11-20
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	23	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL rating	Classification temperature	Number of reflow cycles		
1	260	3		
Bulk solder termination	Terminal plating	Terminal base alloy	Comment	
Tin/Silver/Copper (SAC405)	Not Applicable	NAC	0	
Package designator	Package size	Number of instances	Shape	
WLCSP	NA	115	Bulk solder	
Comment	Package : B0E8 WLCSP 115L P 0.4 DIE 461 DM00693213			

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
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	T343*461XXB		23.1231		900000.0	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	15.499	mg	supplier	die	Silicon (Si)	7440-21-3		14.994	mg	967430	648459
				supplier	metallization	Aluminium (Al)	7429-90-5		0.024	mg	1543	1034
				supplier	metallization	Copper (Cu)	7440-50-8		0.214	mg	13828	9269
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	57	38
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.069	mg	4457	2987
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	171	115
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	114	76
				supplier	Passivation	Silicon Nitride	12033-89-5		0.054	mg	3486	2337
				supplier	Passivation	Silicon Oxide	7631-86-9		0.138	mg	8914	5975
				supplier	Alloy	Ti	7440-32-6		0.002	mg	200963	106
Plating Seed layer 1	Other inorganic materials	0.012	mg	supplier	Alloy	Cu	7440-50-8		0.010	mg	799037	422
				supplier	Alloy	Ti	7440-32-6		0.002	mg	200963	106
UBM (Cu)	Other inorganic materials	0.433	mg	supplier	Alloy	Cu	7440-50-8		0.433	mg	1000000	18730
Re-passivatipon layer (LTC9320 E19)	Other organic materials	0.219	mg	supplier	Polymer	Proprietary polymer	Proprietary		0.197	mg	900000	8512
				supplier	Polymer	Additives	Proprietary		0.022	mg	100000	946
Redistribution Layer (Cu)	Other inorganic materials	0.537	mg	supplier	Alloy	Cu	7440-50-8		0.537	mg	1000000	23219
Plating Seed layer 2	Other inorganic materials	0.021	mg	supplier	Alloy	Ti	7440-32-6		0.004	mg	200963	185
				supplier	Alloy	Cu	7440-50-8		0.017	mg	799037	736
Re-passivatipon layer (LTC9320 E19)	Other organic materials	0.176	mg	supplier	Polymer	Proprietary polymer	Proprietary		0.158	mg	900000	6831
				supplier	Polymer	Additives	Proprietary		0.018	mg	100000	759
				supplier	Polymer	Additives	Proprietary		0.018	mg	100000	759
Solder ball (SAC405)	Solder	5.449	mg	supplier	Solder	Sn	7440-31-5		5.203	mg	955000	225031
				supplier	Solder	Ag	7440-22-4		0.218	mg	40000	9425
				supplier	Solder	Cu	7440-50-8		0.027	mg	5000	1178
				supplier	Solder	Cu	7440-50-8		0.027	mg	5000	1178
BSC (LC2850)	Other Organic Materials	0.778	mg	supplier	polymer	Polyethylene terephthalate	25038-59-9		0.505	mg	650000	21859
				supplier	polymer	Silicon dioxide	7631-86-9		0.152	mg	195000	6558
				supplier	polymer	Plastic: EP - Epoxide, Epoxy	Proprietary		0.058	mg	75000	2522
				supplier	polymer	Proprietary Material-Other acrylic resins	Proprietary		0.058	mg	75000	2522
				supplier	polymer	Carbon black	1333-86-4		0.004	mg	5000	168