



## 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*	2024-03-07
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
STM32H523HEY6TR	E1W0*478XXXA	A	997C	2024-03-07
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	10	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	39	Bulk Solder
Comment	Package : B0MM WLCSP 39L DIE 478 PITCH 0.4 DM00943058		

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
<b>Exemption Id.</b>	<b>Description</b>

QueryList : REACH-23rd January 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
	0			

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	E1W0*478XXXA		9.7409		1000000.0	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	6.102	mg	supplier	die	Silicon (Si)	7440-21-3		5.865	mg	961313	602150
				supplier	metallization	Aluminium (Al)	7429-90-5		0.012	mg	1907	1195
				supplier	metallization	Copper (Cu)	7440-50-8		0.100	mg	16347	10239
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.032	mg	5313	3328
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	136	85
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	136	85
				supplier	Passivation	Silicon Nitride	12033-89-5		0.026	mg	4223	2645
				supplier	Passivation	Silicon Oxide	7631-86-9		0.065	mg	10625	6655
				supplier	Coating film	Silica	Proprietary		0.199	mg	574000	20430
				supplier	Coating film	Epoxy resin	Proprietary		0.074	mg	213000	7581
Coating film (LC2850)		0.347	mg	supplier	Coating film	Acrylic resin	Proprietary		0.074	mg	213000	7581
				supplier	Solder ball	Tin	7440-31-5		1.750	mg	955000	179645
				supplier	Solder ball	Silver	7440-22-4		0.073	mg	40000	7524
				supplier	Solder ball	Copper	7440-50-8		0.009	mg	5000	941
Repassivation (LTC9320)		0.229	mg	supplier	Repassivation polymer(LTC9320)	Gamma-Butyrolactone	96-48-0		0.103	mg	450000	10571
				supplier	Repassivation polymer(LTC9320)	Polyamic acid ester	Proprietary		0.080	mg	350000	8222
				supplier	Repassivation polymer(LTC9320)	Dimethyl sulfoxide	67-68-5		0.030	mg	130000	3054
				supplier	Repassivation polymer(LTC9320)	Tetraethylene glycol dimethacrylate	Proprietary		0.011	mg	50000	1175
				supplier	Repassivation polymer(LTC9320)	Trialkoxylated amidocarboxylic silane	Proprietary		0.002	mg	10000	235
				supplier	Repassivation polymer(LTC9320)	Oxime derivative	Proprietary		0.002	mg	10000	235
RDL (Ti)		0.008	mg	supplier	Runner/UBM (Metal Sputter)	Titanium	7440-32-6		0.008	mg	1000000	780
RDL (Cu)		0.030	mg	supplier	Runner/UBM (Metal Sputter)	Copper	7440-50-8		0.030	mg	1000000	3074
UBM (Ti)		0.004	mg	supplier	Runner/UBM (Metal Sputter)	Titanium	7440-32-6		0.004	mg	1000000	390
UBM (Cu)		0.015	mg	supplier	Runner/UBM (Metal Sputter)	Copper	7440-50-8		0.015	mg	1000000	1537
RDL (Cu)		0.554	mg	supplier	RDL Copper	Copper	7440-50-8		0.554	mg	1000000	56864
UBM (Cu)		0.621	mg	supplier	UBM Copper	Copper	7440-50-8		0.621	mg	1000000	63780