



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D <i>* : Required Field</i>

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	23-02-2023
Company Unique ID	NL 008751171B01		
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 *	Material Declaration champion	Representative Title	Material 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

Legal Statement

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	Mfr Site	Date
STM32U535NEY6QTR	T19F*455XXXZ	A	9965	23-02-2023
	Amount	UoM	Unit type	ST ECOPACK Grade
	13.00	mg	Each	ECOPACK® 2
	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Tin/Silver/Copper (SAC405)	NAC	NAC		

Package Designator	Size	Nbr of instances	Shape	
WLCSP	Not applicable	56	No lead	
Comment	Package : B0H4 WLCSP 56L DIE 455 PITCH 0.4 MM DM00780234			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	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-10 Jun 2022				
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

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	T19P*455XXXZ				8000000.0	1000039.9
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or dies	M-011 Other inorganic materials	9.153	mg	supplier	die	Silicon (Si)	7440-21-3		8.757	mg	956735	673564
				supplier	metallization	Aluminium (Al)	7429-90-5		0.044	mg	4807	3384
				supplier	metallization	Copper (Cu)	7440-50-8		0.130	mg	14203	9999
				supplier	metallization	Nickel (Ni)	7440-02-0		0.001	mg	109	77
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.022	mg	2404	1692
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	656	462
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	109	77
				supplier	Passivation	Silicon Nitride	12033-89-5		0.031	mg	3387	2384
				supplier	Passivation	Silicon Oxide	7631-86-9		0.161	mg	17590	12384
				Plating Seed layer 1	M-011 Other inorganic materials	0.012	mg	supplier	Alloy	Ti	7440-32-6	
Re-passivatipon layer	M-011 Other inorganic materials	0.116	mg	supplier	Alloy	Cu	7440-50-8		0.010	mg	799037	761
				supplier	Polymer	Gamma - Butyrolactone	96-48-0		0.054	mg	465500	4140
				supplier	Polymer	Polyamic acide ester	Proprietary		0.040	mg	345500	3073
				supplier	Polymer	Dimethyl sulfoxide	67-68-5		0.015	mg	125500	1116
				supplier	Polymer	Methacrylate monomer	Proprietary		0.006	mg	50500	449
Redistribution Layer	M-011 Other inorganic materials	0.297	mg	supplier	Polymer	1,2-Octanedione, 1-[4-(phenylthio)phenyl]-,2-(253585-83-0		0.002	mg	13000	116
				supplier	Alloy	Cu	7440-50-8		0.297	mg	1000000	22815
Plating Seed layer 2	M-011 Other inorganic materials	0.012	mg	supplier	Alloy	Ti	7440-32-6		0.002	mg	200963	191
				supplier	Alloy	Cu	7440-50-8		0.010	mg	799037	761
Re-passivatipon layer	M-011 Other inorganic materials	0.097	mg	supplier	Polymer	Gamma - Butyrolactone	96-48-0		0.045	mg	465500	3457
				supplier	Polymer	Polyamic acide ester	Proprietary		0.033	mg	345500	2566
				supplier	Polymer	Dimethyl sulfoxide	67-68-5		0.012	mg	125500	932
				supplier	Polymer	Methacrylate monomer	Proprietary		0.005	mg	50500	375
				supplier	Polymer	1,2-Octanedione, 1-[4-(phenylthio)phenyl]-,2-(253585-83-0		0.001	mg	13000	97
UBM	M-011 Other inorganic materials	0.202	mg	supplier	Alloy	Cu	7440-50-8		0.202	mg	1000000	15573
Solder ball SAC405	Solder	2.653	mg	supplier	Solder	Sn	7440-31-5		2.534	mg	955000	194899
				supplier	Solder	Ag	7440-22-4		0.106	mg	40000	8163
				supplier	Solder	Cu	7440-50-8		0.013	mg	5000	1020
Back Side Coating LC2850	M-011 Other inorganic materials	0.459	mg	supplier	Polymer	Polybutylene terephthalate (PBT)	25038-59-9		0.298	mg	650000	22958
				supplier	Polymer	Silica	Proprietary		0.090	mg	195000	6887
				supplier	Polymer	Proprietary Material-Other Epoxy resins	Proprietary		0.034	mg	75000	2649
				supplier	Polymer	Proprietary Material-Other Acrylic resins	Proprietary		0.034	mg	75000	2649
				supplier	Polymer	Carbon black	1333-86-4		0.002	mg	5000	177