



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 *	2018-06-21
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 *	Giovanni Giapello	Representative Title	ADG MD 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
L9924LTR	C993*MT70BC2	A	9998	2018-06-21
	Amount	UoM	Unit type	ST ECOPACK Grade
	260.00	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
3	225	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	10x10x1	44	gull wing	
Comment	Package: TQFP 44 10x10x1.0 1.0 ExPad Down			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 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 : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

QueryList : California Prop65 list, dated 25th May 2018			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			TRUE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			FALSE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.10	Die	396

QueryList : REACH-15th January 2018				
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
-	-			0
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
-	-	0.00		

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	C993*MT708C2									
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Die	M-011 Other inorganic materials	15.280	mg	supplier	die	Silicon (Si)	7440-21-3		14.156	mg	926440	54446				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.035	mg	2291	135				
				supplier	metallization	Copper (Cu)	7440-50-8		0.647	mg	42343	2488				
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	65	5				
				supplier	passivation	Nickel (Ni)	7440-02-0		0.075	mg	4908	288				
				supplier	metallization	Platinum (Pt)	7440-06-4		0.042	mg	2749	162				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.003	mg	196	12				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.010	mg	654	38				
				supplier	metallization	Tungsten (W)	7440-33-7		0.035	mg	2291	135				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.011	mg	720	42				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.215	mg	14071	827				
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.006	mg	393	23				
				supplier	back side metallization	Gold (Au)	7440-57-5		0.015	mg	982	58				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.028	mg	1832	108				
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.001	mg	65	4				
				Leadframe	M-004 Copper and its alloys	87.339	mg	supplier	alloy	Copper (Cu)	7440-50-8		84.650	mg	969212	325577
								supplier	alloy	Iron (Fe)	7439-89-6		2.040	mg	23357	7846
supplier	alloy	Phosphorus metal	7723-14-0						0.026	mg	298	100				
supplier	alloy	Zinc (Zn)	7440-66-6						0.105	mg	1202	404				
supplier	metallization	Silver (Ag)	7440-22-4						0.518	mg	5931	1992				
supplier	metallization	Silver (Ag)	7440-22-4						2.937	mg	789517	11296				
Die attach	M-011 Other inorganic materials	3.720	mg	supplier	glue	2,2' -[methylenebis(phenyleneoxymethylene)]	39817-09-9		0.246	mg	66129	946				
				supplier	glue	Dodecylsuccinic anhydride	25377-73-5		0.246	mg	66129	946				
				supplier	glue	2,6-Diglycidyl phenyl allyl ether	EC 417-470-1		0.097	mg	26075	373				
				supplier	glue	epoxy polymerised resin	Proprietary		0.097	mg	26075	373				
				supplier	glue	1,4-bis(2,3-epoxypropoxy)butane	2425-79-8		0.097	mg	26075	373				
				supplier	wire	Gold (Au)	7440-57-5		1.216	mg	674058	4677				
Bonding wires	M-008 Precious metals	1.804	mg	supplier	wire	Copper (Cu)	7440-50-8		0.558	mg	309313	2146				
	M-004 Copper and its alloys			supplier	wire	Palladium (Pd)	7440-05-3		0.030	mg	16629	115				
	supplier			wire	Proprietary			10.175	mg	69989	39135					
Encapsulation	M-011 Other inorganic materials	145.381	mg	supplier	mold compound	Epoxy Resin	Proprietary		10.175	mg	69989	39135				
				supplier	mold compound	Phenol Resin	29690-82-2		3.634	mg	24996	13977				
				supplier	mold compound	Silica(Amorphous) A	60676-86-0		104.662	mg	719915	402546				
				supplier	mold compound	Silica(Amorphous) B	7631-86-9		26.166	mg	179982	100638				
				supplier	mold compound	Carbon Black	1333-86-4		0.727	mg	5001	2796				
				supplier	mold compound	Lithium oxide	12057-24-8		0.017	mg	117	65				
connections coating	Solder	6.476	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.476	mg	1000000	24908				