



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-04-23
Contact Name *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Authorized Representative *	Rossana Bonaccorso
Authorized Representative *	Rossana Bonaccorso	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
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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
	B91T*FB74CAQ	A	1054	2018-04-23
Amount	UoM	Unit type	ST ECOPACK Grade	
1650	mg	Each	ECOPACK2	
	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	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy		
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	24-24-1.4	176	gull wing	
Comment	Package: LQFP 176 24x24x1.4 - MDF valid for CPs: SPC56EC70L7C800Y - SPC56EC70L7C800X - SPC56EC70L7C9E0X			

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 : California Prop65 list, dated 15th December 2017			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Cobalt	0.003	Die	2

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
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

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	B91T*FB74CAQ									
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	36.205	mg	supplier	die	Silicon (Si)	7440-21-3		34.176	mg	943958	20713				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.142	mg	3922	86				
				supplier	metallization	Copper (Cu)	7440-50-8		0.922	mg	25466	559				
				supplier	metallization	Cobalt (Co)	7440-48-4		0.003	mg	83	2				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.128	mg	3535	78				
				supplier	metallization	Tungsten (W)	7440-33-7		0.414	mg	11435	251				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.108	mg	2983	64				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.312	mg	8618	189				
				Leadframe	M-004 Copper and its alloys	440.255	mg	supplier	alloy	Copper (Cu)	7440-50-8		426.444	mg	968630	258451
								supplier	alloy	Iron (Fe)	7439-89-6		0.427	mg	970	259
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.128	mg	290	78				
supplier	tape	poly(4,4'-oxydiphenylene-pyromellitimide)	25036-53-7						9.338	mg	21210	5659				
supplier	tape	bismaleimide	35325-39-4						0.095	mg	216	58				
supplier	tape	Zinc hydroxide	20427-58-1						0.095	mg	216	58				
supplier	metallization	Silver (Ag)	7440-22-4						3.728	mg	8468	2259				
Die attach	M-015 Other organic materials	9.332	mg					supplier	glue	Silver (Ag)	7440-22-4		7.373	mg	790078	4468
								supplier	glue	Urethane acrylate oligomer	Proprietary		0.653	mg	69974	396
								supplier	glue	Isobornyl Methacrylate	7534-94-3		0.653	mg	69974	396
				supplier	glue	Acrylate	Proprietary		0.653	mg	69974	396				
Bonding wires	M-011 Other inorganic materials	1.190	mg	supplier	wire	Copper (Cu)	7440-50-8		1.167	mg	980672	707				
				supplier	wire	Palladium (Pd)	7440-05-3		0.021	mg	17647	13				
				supplier	wire	Silver (Ag)	7440-22-4		0.002	mg	1681	1				
				Encapsulation	M-011 Other inorganic materials	1152.902	mg	supplier	mold compound	Silica, vitreous	60676-86-0		996.106	mg	863999	603701
supplier	mold compound	Epoxy Resin	25068-38-6						86.468	mg	75000	52405				
supplier	mold compound	Phenol Resin	29690-82-2						57.645	mg	50000	34936				
supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0						5.765	mg	5000	3494				
supplier	mold compound	Quartz	14808-60-7						3.459	mg	3000	2096				
supplier	mold compound	Carbon black	1333-86-4						3.459	mg	3001	2096				
Connections coating	Solder	10.116	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		10.116	mg	1000000	6131				