



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 *	2018-11-20
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 Giacopello	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
SPC584B70E7NG00X	B9A4*FC70ACQ	A	1054	2018-11-20
	Amount	UoM	Unit type	ST ECOPACK Grade
	1650.00	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	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	NiPdAu	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	24-24-1.4	176	gull wing	
Comment	LQFP 176L 24X24X1.4 Exposed Pad			

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

California 65 list			
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
Nickel	0.51	Die - Leadframe	307

QueryList : REACH-27th June 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	B9A4*FC70ACQ					
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	30.213	mg	supplier	die	Silicon (Si)	7440-21-3		29.517	mg	976964	17889
				supplier	metallization	Aluminium (Al)	7429-90-5		0.083	mg	2747	50
				supplier	metallization	Copper (Cu)	7440-50-8		0.259	mg	8572	157
				supplier	metallization	Nickel (Ni)	7440-02-0		0.001	mg	33	1
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.042	mg	1390	25
				supplier	metallization	Titanium (Ti)	7440-32-6		0.007	mg	232	4
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	33	1
				supplier	Passivation	Silicon Oxide	7631-86-9		0.303	mg	10029	184
				supplier	alloy	Copper (Cu)	7440-50-8		426.445	mg	975668	258452
				supplier	alloy	Iron (Fe)	7439-89-6		0.427	mg	977	259
Leadframe	M-004 Copper and its alloys	437.080	mg	supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.128	mg	293	79
				supplier	tape	poly(4,4'-oxydiphenylene-pyromellitimide)	25036-53-7		9.338	mg	21365	5659
				supplier	tape	bismaleimide	35325-39-4		0.095	mg	217	58
				supplier	tape	Zinc hydroxide	20427-58-1		0.095	mg	217	58
				supplier	metallization	Nickel (Ni)	7440-02-0		0.506	mg	1158	307
				supplier	metallization	Palladium (Pd)	7440-05-3		0.032	mg	73	19
				supplier	metallization	Gold (Au)	7440-57-5		0.014	mg	32	8
				supplier	glue or tape (choose)	Silver (Ag)	7440-22-4		4.591	mg	894932	2782
				supplier	glue or tape	Isobornyl Methacrylate	7534-94-3		0.385	mg	75049	233
				supplier	glue or tape	Bismaleimide resin	Proprietary		0.154	mg	30019	93
Bonding wires	M-004 Copper and its alloys	2.507	mg	supplier	wire	Copper (Cu)	7440-50-8		2.507	mg	1000000	1519
Encapsulation	M-011 Other inorganic materials	1175.070	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1015.261	mg	864000	615310
				supplier	mold compound	Epoxy Resin	25068-38-6		88.130	mg	75000	53412
				supplier	mold compound	Phenol Resin	29690-82-2		58.754	mg	50000	35608
				supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		5.875	mg	5000	3561
				supplier	mold compound	Quartz	14808-60-7		3.525	mg	3000	2136
supplier	mold compound	Carbon black	1333-86-4		3.525	mg	3000	2136				