



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2019-01-29
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 *	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

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
	B9YE*FC70ACQ	A	1054	2019-01-29
Amount	UoM	Unit type	ST ECOPACK Grade	
520.00	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	Comment	
NA	NiPdAu	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	14-14-1	100	gull wing	
Comment	Package: TQFP 100 14x14x1.0 1.0 ExpadDown - MDF for CPs: SPC584B70E3EHC0X and SPC584B64E3ND00X			

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 26th October 2018			
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	1.68	Die - Leadframe	3235

QueryList : REACH-15th January 2019				
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	B9YE*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	40.195	mg	supplier	die	Silicon (Si)	7440-21-3		39.440	mg	981217	75846
				supplier	metallization	Aluminium (Al)	7429-90-5		0.083	mg	2065	160
				supplier	metallization	Copper (Cu)	7440-50-8		0.259	mg	6444	498
				supplier	metallization	Nickel (Ni)	7440-02-0		0.001	mg	24	2
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.042	mg	1045	81
				supplier	metallization	Titanium (Ti)	7440-32-6		0.007	mg	174	13
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	25	2
				supplier	Passivation	Silicon Nitride	12033-89-5		0.059	mg	1468	113
				supplier	Passivation	Silicon Oxide	7631-86-9		0.303	mg	7538	583
				Leadframe	M-004 Copper and its alloys	220.336	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						0.219	mg	994	421
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.066	mg	300	124
supplier	metallization	Nickel (Ni)	7440-02-0						1.681	mg	7629	3233
supplier	metallization	Palladium (Pd)	7440-05-3						0.108	mg	490	208
supplier	metallization	Gold (Au)	7440-57-5						0.045	mg	204	87
supplier	glue	Silver (Ag)	7440-22-4						4.742	mg	891856	9119
Die attach	M-015 Other organic materials	5.317	mg	supplier	glue	Isobornyl Methacrylate	7534-94-3		0.399	mg	75042	767
				supplier	glue	Bismaleimide resin	35325-39-4		0.160	mg	30092	308
				supplier	glue	Epoxyoctahydroxyethyltrimethoxysilane	3388-04-3		0.016	mg	3009	31
				supplier	wire	Copper (Cu)	7440-50-8		0.784	mg	1000000	1508
Encapsulation	M-011 Other inorganic materials	253.368	mg	supplier	mold compound	Silica, vitreous	60676-86-0		218.910	mg	864000	420981
				supplier	mold compound	Epoxy Resin	25068-38-6		19.003	mg	75002	36544
				supplier	mold compound	Phenol Resin	29690-82-2		12.668	mg	49998	24362
				supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		1.267	mg	5001	2437
				supplier	mold compound	Quartz	14808-60-7		0.760	mg	3000	1462
				supplier	mold compound	Carbon black	1333-86-4		0.760	mg	3000	1462