



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 *	2019-01-22
Company Unique ID	NL 008751171801		
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
	B9A4*FH86BBQ	A	1054	2019-01-22
Amount	UoM	Unit type	ST ECOPACK Grade	
1650.00	mg	Each	ECOPACK2	
	Comment	ECOPACK2 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	Package: LQFP 176L 24X24X1.4 Exposed Pad - MDF valid for CPs: SPC58EE80E7QMHAY - SPC58EE80E7QMSAY - SPC58EE84E7QMSAR - SPC58NE70E7QM HAR - SPC58NE80E7QMHAY - SPC58NE84E7QM HAR - SPC58NE84E7QMHAY - SPC58NE84E7QMSAR			

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	2.27	Die - Leadframe	1376

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 :						Mfr Item Name	B9A4*FH86BBQ					
note : Substance present with less 0.001mg. will not be declared in this document												
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	78.304	mg	supplier	die	Silicon (Si)	7440-21-3		76.421	mg	975953	46316
				supplier	metallization	Aluminium (Al)	7429-90-5		0.214	mg	2733	130
				supplier	metallization	Copper (Cu)	7440-50-8		0.671	mg	8569	407
				supplier	metallization	Nickel (Ni)	7440-02-0		0.003	mg	38	2
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.109	mg	1392	66
				supplier	metallization	Titanium (Ti)	7440-32-6		0.019	mg	243	12
				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	38	2
				supplier	Passivation	Silicon Nitride	12033-89-5		0.079	mg	1009	48
				supplier	Passivation	Silicon Oxide	7631-86-9		0.785	mg	10025	476
				Leadframe	M-004 Copper and its alloys	442.729	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						0.427	mg	962	259
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.128	mg	289	78
supplier	tape	poly(4,4'-oxydiphenylene-pyromellitimide)	25036-53-7						9.338	mg	21092	5659
supplier	tape	bismaleimide	35325-39-4						0.095	mg	215	58
supplier	tape	Zinc hydroxide	20427-58-1						0.095	mg	215	58
supplier	metallization	Nickel (Ni)	7440-02-0						2.268	mg	5123	1375
supplier	metallization	Palladium (Pd)	7440-05-3						0.145	mg	328	88
supplier	metallization	Gold (Au)	7440-57-5						0.061	mg	138	37
supplier	metallization	Silver (Ag)	7440-22-4						3.728	mg	8421	2259
Die attach	M-015 Other organic materials	12.642	mg	supplier	glue	Silver (Ag)	7440-22-4		11.315	mg	895032	6858
				supplier	glue	Isobornyl Methacrylate	7534-94-3		0.948	mg	74988	571
				supplier	glue	Bismaleimide resin	Proprietary		0.379	mg	29980	230
				supplier	wire	Copper (Cu)	7440-50-8		2.490	mg	1000000	1509
Encapsulation	M-011 Other inorganic materials	1113.835	mg	supplier	mold compound	Silica, vitreous	60676-86-0		962.352	mg	863999	583244
				supplier	mold compound	Epoxy Resin	25068-38-6		83.538	mg	75000	50629
				supplier	mold compound	Phenol Resin	29690-82-2		55.692	mg	50000	33753
				supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		5.569	mg	5001	3375
				supplier	mold compound	Quartz	14808-60-7		3.342	mg	3000	2025
				supplier	mold compound	Carbon black	1333-86-4		3.342	mg	3000	2025