



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 *	2019-04-16
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
SMB15F16A	8H6Y*TFU019I	A	64BA	2019-04-16
	Amount	UoM	Unit type	ST ECOPACK Grade
	60.00	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
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	4.14-2.76-1.94	2	Flat	
Comment	SMB Flat NEP			

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	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 23rd November 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	0.05	Die	783
Lead	3.77	Soft solder	62783

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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	3.77		62783
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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	1000 ppm	3.77	Soft solder	954880

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	8HG7*TFU019I					
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	3.740	mg	supplier	die	Silicon (Si)	7440-21-3		3.523	mg	941979	58717
				supplier	metallization	Aluminium (Al)	7429-90-5		0.043	mg	11497	717
				supplier	metallization	Gold (Au)	7440-57-5		0.024	mg	6417	400
				supplier	metallization	Nickel (Ni)	7440-02-0		0.047	mg	12567	783
				supplier	passivation	Silicon Oxide	7631-86-9		0.025	mg	6684	417
				supplier	polymer die coating	Durimide	Proprietary		0.078	mg	20856	1300
Leadframe	M-004 Copper and its alloys	22.128	mg	supplier	alloy	Copper (Cu)	7440-50-8		22.099	mg	998689	368317
				supplier	alloy	Iron (Fe)	7439-89-6		0.022	mg	995	367
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.007	mg	316	115
Soft solder	Solder	3.945	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met	3.767	mg	954880	62783
				supplier	solder	Silver (Ag)	7440-22-4		0.099	mg	25095	1650
				supplier	solder	Tin (Sn)	7440-31-5		0.079	mg	20025	1317
Encapsulation	M-011 Other inorganic materials	26.866	mg	supplier	mold compound	Amorphous Silica	7631-86-9		23.775	mg	884948	396250
				supplier	mold compound	Epoxy resin	29690-82-2		1.612	mg	60001	26867
				supplier	mold compound	Phenol resin	9003-35-4		1.209	mg	45001	20150
				supplier	mold compound	Carbon black	1333-86-4		0.108	mg	4020	1800
				supplier	mold compound	Magnesium oxide	1309-48-4		0.054	mg	2010	900
				supplier	mold compound	Aluminium hydroxide	21645-51-2		0.054	mg	2010	900
Connections coating	Solder	0.153	mg	supplier	solder alloy	Mercaptopropyl trimethoxysilane	4420-74-0		0.054	mg	2010	900
				supplier	solder alloy	Tin (Sn)	7440-31-5		0.153	mg	1000000	2550
Clip	M-004 Copper and its alloys	3.168	mg	supplier	alloy	Copper (Cu)	7440-50-8		3.165	mg	999053	52750
				supplier	alloy	CopperPhosphorous (CuP)	12517-41-8		0.003	mg	947	50