



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 *	2018-11-26
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
SMB6F13A	8H6Y*TFU015D	A	64BA	2018-11-26
	Amount	UoM	Unit type	ST ECOPACK Grade
	56.00	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 25th May 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	0.02	Die	304
Lead	1.43	Soft solder	25536

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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	1.43	Soft solder	25536
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	1.43	Soft solder	924968

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	8HEV*TFU015D					
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	1.336	mg	supplier	die	Silicon (Si)	7440-21-3		1.258	mg	941617	22464
				supplier	metallization	Aluminium (Al)	7429-90-5		0.009	mg	6735	160
				supplier	metallization	Gold (Au)	7440-57-5		0.007	mg	5240	125
				supplier	metallization	Nickel (Ni)	7440-02-0		0.007	mg	5240	125
				supplier	Passivation	Silicon Oxide	7631-86-9		0.009	mg	6737	161
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.006	mg	4491	107
				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	1497	36
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.010	mg	7485	179
				supplier	polymer die coating	Durimide	Proprietary		0.028	mg	20958	500
				supplier	alloy	Copper (Cu)	7440-50-8		22.100	mg	998690	394643
Leadframe	M-004 Copper and its alloys	22.129	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.022	mg	994	393
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.007	mg	316	125
				supplier	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	1.430	mg	924968	25536
Soft solder	Solder	1.546	mg	supplier	solder	Tin (Sn)	7440-31-5		0.039	mg	25226	696
				supplier	solder	Silver (Ag)	7440-22-4		0.077	mg	49806	1375
				supplier	solder	Amorphous Silica	7631-86-9		24.487	mg	885030	437268
Encapsulation	M-011 Other inorganic materials	27.668	mg	supplier	mold compound	Epoxy resin	29690-82-2		1.660	mg	59997	29643
				supplier	mold compound	Phenol resin	9003-35-4		1.245	mg	44998	22232
				supplier	mold compound	Carbon black	1333-86-4		0.111	mg	4011	1982
				supplier	mold compound	Magnesium oxide	1309-48-4		0.055	mg	1988	982
				supplier	mold compound	Aluminium hydroxide	21645-51-2		0.055	mg	1988	982
				supplier	mold compound	Mercaptopropyl trimethoxysilane	4420-74-0		0.055	mg	1988	982
				supplier	solder alloy	Tin (Sn)	7440-31-5		0.153	mg	1000000	2732
connections coating	Solder	0.153	mg	supplier	alloy	Copper (Cu)	7440-50-8		3.165	mg	999053	56518
Clip	M-004 Copper and its alloys	3.168	mg	supplier	alloy	CopperPhosphorous (CuP)	12517-41-8		0.003	mg	947	54