



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2019-03-20
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	Rossana Bonaccorso	<b>Representative Title</b>	ADG MD Champion
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty Statement**


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Legal Statement		
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>
		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
SMBJ100CA-TR	8HZG*TWB121G	A	64BA	2019-03-20
Amount	UoM	Unit type	ST ECOPACK Grade	
98.00	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	
SOJ	4.2-3.7-2.37	2	J bend	
Comment	SMB CLIP (SOD 6)			

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 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	0.07	Die - Leadframe	735
Lead	1.55	Soft solder	15776

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
Lead	1000 ppm	1.546	Soft solder	15776
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
Lead	1000 ppm	1.546	Soft solder	920238

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	8HZG*TWB121G					
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	1.824	mg	supplier	die	Silicon (Si)	7440-21-3		1.789	mg	980811	18255
				supplier	metallization	Aluminium (Al)	7429-90-5		0.010	mg	5482	102
				supplier	metallization	Gold (Au)	7440-57-5		0.007	mg	3838	71
				supplier	metallization	Nickel (Ni)	7440-02-0		0.008	mg	4387	82
				supplier	Passivation	Silicon Oxide	7631-86-9		0.010	mg	5482	102
Leadframe	M-004 Copper and its alloys	40.745	mg	supplier	alloy	Copper (Cu)	7440-50-8		40.623	mg	997006	414520
				supplier	alloy	Iron (Fe)	7439-89-6		0.041	mg	1006	418
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.012	mg	295	122
				supplier	metallization	Nickel (Ni)	7440-02-0		0.064	mg	1570	653
				supplier	metallization	Phosphorus (P)	7723-14-0		0.005	mg	123	51
Soft solder	Solder	1.680	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	1.546	mg	920238	15776
				supplier	solder	Silver (Ag)	7440-22-4		0.042	mg	25000	429
				supplier	solder	Tin (Sn)	7440-31-5		0.084	mg	50000	857
				supplier	solder	flux residue	Proprietary		0.008	mg	4762	82
				supplier	mold compound	Amorphous Silica	7631-86-9		25.300	mg	731003	258163
Encapsulation	M-011 Other inorganic materials	34.610	mg	supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		6.576	mg	190003	67102
				supplier	mold compound	Phenol resin	9003-35-4		1.038	mg	29991	10592
				supplier	mold compound	Bisphenol A-bisphenol A diglycidyle ether poly	25036-25-3		1.038	mg	29991	10592
				supplier	mold compound	Carbon black	1333-86-4		0.312	mg	9015	3184
				supplier	mold compound	Triphenylphosphine	603-35-0		0.242	mg	6992	2469
Connections coating	Solder	0.811	mg	supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		0.104	mg	3005	1061
				supplier	solder alloy	Tin (Sn)	7440-31-5		0.811	mg	1000000	8276
Clip		18.330	mg	supplier	alloy	Copper (Cu)	7440-50-8		18.330	mg	1000000	187041