



## 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>

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2017-04-04
<b>Contact Name *</b>	Refer to Supplier Comment section	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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<b>Legal Statement</b>		
<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
SMAJ170CA-TR	8HST*TWB201D	A	64BA	2017-04-04
	Amount	UoM	Unit type	ST ECOPACK Grade
	70.00	mg	Each	ECOPACK2

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	4.14-2.76-1.94	2	J bend	
Comment	SMA			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 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)

Query : California Prop65 list, dated 27th January 2017			
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	0.04	die backside metal - leadframe metal	629
Lead	1.48	soft solder	21086

QueryList : REACH-12th January 2017				
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

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	8H5T*TWB201D					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	1.602	mg	supplier	die	Silicon (Si)	7440-21-3		1.573	mg	981898	22471
				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	3122	71
				supplier	Passivation	Silicon Oxide	7631-86-9		0.006	mg	3745	86
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.006	mg	3745	86
				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	1248	29
Leadframe	Copper & its alloys	29.843	mg	supplier	back side metallization	Nickel (Ni)	7440-02-0		0.010	mg	6242	143
				supplier	alloy	Copper (Cu)	7440-50-8		29.776	mg	997755	425371
				supplier	alloy	CopperPhosphorous (CuP)	12517-41-8		0.030	mg	1005	429
				supplier	metallization	Nickel (Ni)	7440-02-0		0.034	mg	1139	486
				supplier	metallization	Phosphorus (P)	12185-10-3		0.003	mg	101	43
Soft solder	Solder	1.596	mg	JG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	1.476	mg	924812	21086
				supplier	solder	Tin (Sn)	7440-31-5		0.080	mg	50125	1143
				supplier	solder	Silver (Ag)	7440-22-4		0.040	mg	25063	570
Encapsulation	Other Organic Materials	24.737	mg	supplier	mold compound	Amorphous Silica	7631-86-9		18.083	mg	731010	258329
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		4.700	mg	189999	67143
				supplier	mold compound	Phenol resin	9003-35-4		0.742	mg	29996	10600
				supplier	mold compound	Bisphenol A-bisphenol A diglycidyle ether poly	25036-25-3		0.742	mg	29996	10600
				supplier	mold compound	Carbon black	1333-86-4		0.223	mg	9014	3186
				supplier	mold compound	Triphenylphophine	603-35-0		0.173	mg	6994	2471
Connections coating	Solder	0.741	mg	supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		0.074	mg	2991	1057
				supplier	solder alloy	Tin (Sn)	7440-31-5		0.741	mg	1000000	10586
Clip	Copper & its alloys	11.481	mg	supplier	alloy	Copper ( Cu)	7440-50-8		11.481	mg	1000000	164014