



## 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>	2017-10-24
<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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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
SM15T220A	8HZH*TWU221K	A	64BA	2017-10-24
	Amount	UoM	Unit type	ST ECOPACK Grade
	250.00	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	6.69-5.63-2.38	2	J bend	
Comment	SMC CLIP (SOD 15)			

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	0.80	Die/Leadframe	3200
Lead	3.91	Soft solder	15620

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	8ZH*TWU221K					
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	4.999	mg	supplier	die	Silicon (Si)	7440-21-3		4.909	mg	981996	19636
				supplier	metallization	Aluminium (Al)	7429-90-5		0.014	mg	2801	56
				supplier	Passivation	Silicon Oxide	7631-86-9		0.019	mg	3801	76
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.019	mg	3801	76
				supplier	back side metallization	Gold (Au)	7440-57-5		0.007	mg	1400	28
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.031	mg	6201	124
Leadframe	Copper & its alloys	79.541	mg	supplier	alloy	Copper (Cu)	7440-50-8		78.669	mg	989037	314676
				supplier	alloy	Iron (Fe)	7439-89-6		0.079	mg	993	316
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.024	mg	302	96
				supplier	metallization	Nickel (Ni)	7440-02-0		0.769	mg	9668	3076
Soft solder	Solder	4.243	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	3.905	mg	920339	15620
				supplier	solder	Silver (Ag)	7440-22-4		0.106	mg	24983	424
				supplier	solder	Tin (Sn)	7440-31-5		0.211	mg	49729	844
				supplier	solder	flux residue	Proprietary		0.021	mg	4949	84
				supplier	solder	Amorphous Silica	7631-86-9		87.523	mg	730997	350092
Encapsulation	Other Organic Materials	119.731	mg	supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		22.749	mg	190001	90996
				supplier	mold compound	Phenol resin	9003-35-4		3.592	mg	30001	14368
				supplier	mold compound	Bisphenol A-bisphenol A diglycidyle ether poly	25036-25-3		3.592	mg	30001	14368
				supplier	mold compound	Carbon black	1333-86-4		1.078	mg	9003	4312
				supplier	mold compound	Triphenylphosphine	603-35-0		0.838	mg	6999	3352
				supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		0.359	mg	2998	1436
				supplier	mold compound							
Connections coating	Solder	1.972	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.972	mg	1000000	7888
Clip	Copper & its alloys	39.514	mg	supplier	alloy	Copper (Cu)	7440-50-8		39.514	mg	1000000	158056