



## 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

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2016-12-19
<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
SMCJ12A-TR	8HZK*TWU014K	A	ZA41	2016-12-19
Amount		UoM	Unit type	ST ECOPACK Grade
250.00		mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
SOJ	4.5X2.16X3.68	1	J bend	
Comment	Package: SMC CLIP (SOD 15 NEW)			

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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	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 : REACH-20th June 2016				
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						Mfr Item Name	8HZK*TWU014K					
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	5.538	mg	supplier	die	Silicon (Si)	7440-21-3		4.909	mg	886421	19636
				supplier	metallization	Aluminium (Al)	7429-90-5		0.527	mg	95161	2108
				supplier	Passivation	Silicon Oxide	7631-86-9		0.045	mg	8126	180
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.019	mg	3431	76
				supplier	back side metallization	Gold (Au)	7440-57-5		0.007	mg	1263	28
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.031	mg	5598	124
Leadframe & Clip	Copper and its alloy	88.359	mg	supplier	alloy	Copper (Cu)	7440-50-8		88.316	mg	999513	353264
				supplier	alloy	Zinc (Zn)	7440-66-6		0.004	mg	45	16
				supplier	alloy	Iron (Fe)	7439-89-6		0.009	mg	102	36
				supplier	alloy	Phosphorus (P)	12185-10-3		0.030	mg	340	120
Die Attach	Solder	4.208	mg	JIG - R	soft solder	Lead (Pb)	7439-92-1	7a-Lead in high me	3.892	mg	924905	15568
				supplier	soft solder	Tin (Sn)	7440-31-5		0.211	mg	50143	844
				supplier	soft solder	Silver (Ag)	7440-22-4		0.105	mg	24952	420
Encapsulation	Other organic material	149.791	mg	supplier	Moulding Compound	Amorphous Silica	7631-86-9		91.971	mg	613996	367884
				supplier	Moulding Compound	Quartz	14808-60-7		29.959	mg	200005	119836
				supplier	Moulding Compound	epoxy resin	25068-38-6		17.974	mg	119994	71896
				supplier	Moulding Compound	phenolic resin	29690-82-2		8.988	mg	60004	35952
				supplier	Moulding Compound	Carbon black	1333-86-4		0.899	mg	6001	3596
Finishing	Solder	2.104	mg	supplier	connection coating	Tin (Sn)	7440-31-5		2.104	mg	1000000	8416