



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 *	2017-10-20
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	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
SM15T12A	8HZK*TWU012K	A	ZA41	2017-10-20
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	2	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)

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	0.05	die metal & backside metal	208
Lead	3.82	soft solder	15280

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						Mfr Item Name	8HZK*TWU012K					
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	10.028	mg	supplier	die	Silicon (Si)	7440-21-3		9.818	mg	979059	39272
				supplier	metallization	Aluminium (Al)	7429-90-5		0.056	mg	5584	224
				supplier	metallization	Nickel (Ni)	7440-02-0		0.021	mg	2094	84
				supplier	metallization	Gold (Au)	7440-57-5		0.020	mg	1994	80
				supplier	Passivation	Silicon Oxide	7631-86-9		0.056	mg	5584	224
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.019	mg	1895	76
				supplier	back side metallization	Gold (Au)	7440-57-5		0.007	mg	699	28
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.031	mg	3091	124
Leadframe & clips	Copper & its alloys	86.737	mg	supplier	alloy	Copper (Cu)	7440-50-8		86.695	mg	999516	346780
				supplier	alloy	Zinc (Zn)	7440-66-6		0.004	mg	46	16
				supplier	alloy	Iron (Fe)	7439-89-6		0.009	mg	104	36
				supplier	alloy	Phosphorus (P)	12185-10-3		0.029	mg	334	116
Soft solder	Solder	4.130	mg	JIG - R	soft solder	Lead (Pb)	7439-92-1	7a-Lead in high me	3.820	mg	924939	15280
				supplier	soft solder	Tin (Sn)	7440-31-5		0.207	mg	50122	828
				supplier	soft solder	Silver (Ag)	7440-22-4		0.103	mg	24939	412
Bonding wire	Other inorganic materials	90.282	mg	supplier	mold compound	Amorphous Silica	7631-86-9		90.282	mg	1000000	361128
				supplier	mold compound	Quartz	14808-60-7		29.408	mg	518130	117632
Encapsulation	Other inorganic materials	56.758	mg	supplier	mold compound	epoxy resin	25068-38-6		17.644	mg	310864	70576
				supplier	mold compound	phenolic resin	29690-82-2		8.823	mg	155449	35292
				supplier	mold compound	Carbon black	1333-86-4		0.883	mg	15557	3532
Connections coating	Solder	2.065	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.065	mg	1000000	8260