



## 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>	2017-11-20
<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
STPSC20065D	HSDK*4L021T7	A	3068	2017-11-20
	Amount	UoM	Unit type	ST ECOPACK Grade
	1870.00	mg	Each	ECOPACK2

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



Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-16.25-4.5	2	Through-hole	
Comment	DO 220			

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	0.12	Die /Leadframe	65
Lead	3.86	Soft solder	2064

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	HSDK*4L021T7					
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	3.934	mg	supplier	die	Silicium carbide	409-21-2		3.757	mg	955008	2009
				supplier	metallization	Aluminium (Al)	7429-90-5		0.042	mg	10676	22
				supplier	metallization	Gold (Au)	7440-57-5		0.006	mg	1526	3
				supplier	metallization	Silver (Ag)	7440-22-4		0.072	mg	18302	39
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	508	1
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	508	1
				supplier	back side metallization	Gold (Au)	7440-57-5		0.006	mg	1525	3
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.029	mg	7372	16
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.018	mg	4575	10
Leadframe	Copper & its alloys	1184.409	mg	supplier	alloy	Copper (Cu)	7440-50-8		1182.771	mg	998617	632498
				supplier	alloy	Iron (Fe)	7439-89-6		1.184	mg	1000	633
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.355	mg	300	190
				supplier	metallization	Nickel (Ni)	7440-02-0		0.092	mg	77	49
				supplier	metallization	Phosphorus (P)	12185-10-3		0.007	mg	6	4
Soft solder	Solder	4.041	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	3.859	mg	954962	2064
				supplier	solder	Silver (Ag)	7440-22-4		0.101	mg	24994	54
				supplier	solder	Tin (Sn)	7440-31-5		0.081	mg	20044	43
Bonding wires	Other inorganic materials	2.770	mg	supplier	wire	Aluminium (Al)	7429-90-5		2.770	mg	1000000	1481
				supplier	mold compound	Silica, vitreous	60676-86-0		583.426	mg	869999	311993
Encapsulation	Other Organic Materials	670.605	mg	supplier	mold compound	Epoxy resin	25068-38-6		67.061	mg	100001	35861
				supplier	mold compound	Phenol resin	29690-82-2		16.765	mg	25000	8965
				supplier	mold compound	Carbon Black	1333-86-4		3.353	mg	5000	1793
Connections coating	Solder	4.241	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.241	mg	1000000	2268