



## 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>	2016-05-23
<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
STP9NK50Z	TLDZ*EZ54B61	A	BOUSKOURA B/E	2016-05-23
	Amount	UoM	Unit type	ST ECOPACK Grade
	1900.00	mg	Each	ECOPACK2

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

Package Designator	Size	Nbr of instances	Shape	
SIP	10-9.1-4.5	3	THROUGH HOLE	
Comment	Package: TO 220 AB NON ISOLATED			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	true
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)	FALSE
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 14 August 2015			
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	6.47	die back side/ leadframe metallization	3406
Lead	8.29	soft solder	4363

QueryList : REACH-17th December 2015				
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	TLD2*E254861					
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	9.509	mg	supplier	die	Silicon (Si)	7440-21-3		9.179	mg	965296	4831
				supplier	metallization	Aluminium (Al)	7429-90-5		0.129	mg	13566	68
				supplier	Passivation	Silicon Nitride	12033-89-5		0.043	mg	4522	23
				supplier	Passivation	Silicon Oxide	7631-86-9		0.069	mg	7256	36
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	421	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.063	mg	6625	34
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.022	mg	2314	12
				supplier	alloy	Copper (Cu)	7440-50-8		1251.376	mg	993587	658619
Leadframe	Copper & Its alloys	1259.453	mg	supplier	alloy	Iron (Fe)	7439-89-6		1.253	mg	994	659
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.376	mg	299	198
				supplier	metallization	Nickel (Ni)	7440-02-0		6.408	mg	5088	3373
				supplier	metallization	Phosphorus (P)	12185-10-3		0.040	mg	32	21
Soft solder	Solder	8.681	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	8.290	mg	954959	4363
				supplier	solder	Silver (Ag)	7440-22-4		0.217	mg	24997	114
				supplier	solder	Tin (Sn)	7440-31-5		0.174	mg	20044	92
Bonding wires	Other inorganic materials	0.735	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.734	mg	999047	386
				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	953	0
Encapsulation	Other Organic Materials	615.260	mg	supplier	mold compound	Silica, vitreous	60676-86-0		535.276	mg	870000	281724
				supplier	mold compound	Epoxy resin	25068-38-6		61.526	mg	100000	32382
				supplier	mold compound	Phenol resin	29690-82-2		15.382	mg	25000	8096
				supplier	mold compound	Carbon Black	1333-86-4		3.076	mg	5000	1619
Connections coating	Solder	6.362	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348