



## Materials Declaration Form

<b>IPC</b>	<b>1752</b>	<b>Version</b>	<b>2</b>
<b>Form Type *</b>	<b>Distribute</b>		
<b>Sectionals *</b>	<b>Material Info</b> <b>Manufacturing Info</b>	<b>Subsectionals *</b>	<b>A-D</b>
<i>* : Required Field</i>			

<b>Supplier Information</b>			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2018-02-23</b>
<b>Contact Name *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Authorized Representative *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	<b>Giovanni Giacobello</b>	<b>Representative Title</b>	<b>ADG MD Champion</b>
<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>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
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**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
	A677*UG01BC1	A	0959	2018-02-23
Amount	UoM	Unit type	ST ECOPACK Grade	
1914	mg	Each	ECOPACK2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	15.9-11-3.5	20	gull wing	
Comment	Package: PowerSO 20 .43 SLUG DOWN. MDF valid for CPs: L9349TR-LF and L9349-LF			

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)

QueryList : California Prop65 list, dated 15th December 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	28
Lead	7.62	Soft solder	3982

QueryList : REACH-15th January 2018				
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
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	A677*UG01BC1					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	11.119	mg	supplier	die	Silicon (Si)	7440-21-3		10.639	mg	956831	5559
				supplier	metallization	Aluminium (Al)	7429-90-5		0.080	mg	7195	42
				supplier	metallization	Titanium (Ti)	7440-32-6		0.010	mg	899	5
				supplier	Passivation	Silicon Nitride	12033-89-5		0.017	mg	1529	9
				supplier	Passivation	Silicon Oxide	7631-86-9		0.215	mg	19336	112
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.006	mg	539	3
				supplier	back side metallization	Gold (Au)	7440-57-5		0.016	mg	1439	8
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.054	mg	4857	28
Leadframe	M-004 Copper and its alloys	436.261	mg	supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.082	mg	7375	43
				supplier	alloy	Copper (Cu)	7440-50-8		430.813	mg	987512	225085
				supplier	alloy	Iron (Fe)	7439-89-6		0.431	mg	988	225
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.129	mg	296	67
				supplier	metallization	Silver (Ag)	7440-22-4		4.888	mg	11204	2554
Soft solder	Solder	7.817	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	7.622	mg	975054	3982
				supplier	solder	Silver (Ag)	7440-22-4		0.117	mg	14967	61
				supplier	solder	Tin (Sn)	7440-31-5		0.078	mg	9979	42
Bonding wires	M-011 Other inorganic materials	3.015	mg	supplier	wire	Gold (Au)	7440-57-5		3.015	mg	1000000	1575
Encapsulation	M-011 Other inorganic materials	1451.649	mg	supplier	mold compound	silica vitreous	60676-86-0		1274.548	mg	878000	665908
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		87.099	mg	60000	45506
				supplier	mold compound	Phenol Resin	205830-20-2		58.066	mg	40000	30338
				supplier	mold compound	epoxy resin	25068-38-6		29.033	mg	20000	15169
				supplier	mold compound	carbon black	1333-86-4		2.903	mg	2000	1517
Connections coating	Solder	4.139	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.139	mg	1000000	2162