



## 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

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2019-01-14
<b>Company Unique ID</b>	NL 008751171801		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	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
	G6EH*UN64AA1	A	0959	2019-01-14
Amount	UoM	Unit type	ST ECOPACK Grade	
484.70	mg	Each	ECOPACK2	
	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant ( in each organic material)		

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

Package Designator	Size	Nbr of instances	Shape
QFP	10.3-7.5-2.28	36	Gull Wing
Comment	Package: PowerSSO36 - MDF valid for L9952GXPTR - L9952GXP		

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 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 : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 25th May 2018			
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	0.06	Die	120
Lead	8.14	Soft solder	16798

QueryList : REACH-27th June 2018				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	8.14	Soft solder	16798
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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	1000 ppm	8.14	Soft solder	974973

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	G6EH*UN64AA1					
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	11.933	mg	supplier	die	Silicon (Si)	7440-21-3		11.369	mg	952736	23456
				supplier	metallization	Aluminium (Al)	7429-90-5		0.075	mg	6285	155
				supplier	metallization	Tungsten (W)	7440-33-7		0.119	mg	9972	246
				supplier	Passivation	Silicon Nitride	12033-89-5		0.018	mg	1508	37
				supplier	Passivation	Silicon Oxide	7631-86-9		0.175	mg	14665	361
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.007	mg	587	14
				supplier	back side metallization	Gold (Au)	7440-57-5		0.017	mg	1425	35
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.058	mg	4860	120
				supplier	glass coating	Glass: Silicon Dioxide	7631-86-9		0.007	mg	587	14
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.088	mg	7375	182
Leadframe	M-004 Copper and its alloys	161.653	mg	supplier	alloy	Copper (Cu)	7440-50-8		159.255	mg	985166	328564
				supplier	alloy	Iron (Fe)	7439-89-6		0.160	mg	990	330
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.048	mg	296	100
				supplier	metallization	Silver (Ag)	7440-22-4		2.190	mg	13548	4518
				supplier	metallization	Lead (Pb)	7439-92-1	7a-Lead in high met	8.142	mg	974973	16798
Soft solder	Solder	8.351	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met	8.142	mg	974973	16798
				supplier	solder	Silver (Ag)	7440-22-4		0.125	mg	14968	258
				supplier	solder	Tin (Sn)	7440-31-5		0.084	mg	10059	173
Bonding wires	M-011 Other inorganic materials	1.464	mg	supplier	wire	Gold (Au)	7440-57-5		1.449	mg	989754	2989
				supplier	wire	Copper (Cu)	7440-50-8		0.009	mg	6148	19
				supplier	wire	Palladium (Pd)	7440-05-3		0.004	mg	2732	8
				supplier	wire	Platinum (Pt)	7440-06-4		0.002	mg	1366	4
Encapsulation	M-015 Other organic materials	297.047	mg	supplier	mold compound	silica vitreous	60676-86-0		260.807	mg	877999	538079
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		17.823	mg	60001	36771
				supplier	mold compound	Phenol Resin	205830-20-2		11.882	mg	40000	24514
				supplier	mold compound	epoxy resin	25068-38-6		5.941	mg	20000	12257
				supplier	mold compound	carbon black	1333-86-4		0.594	mg	2000	1226
Connections coating	Solder	4.252	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.252	mg	1000000	8772