



## 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>	2018-12-05
<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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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
	I927*US48AA6	A	0959	2018-12-05
Amount	UoM	Unit type	ST ECOPACK Grade	
500.00	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	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	3.9-4.9-1.25	20	GULL WING	
Comment	Package: SO 20 .30 TO JEDEC MS-013 - MDF valid for CPs: L9904TR and L9904			

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	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
Exemption Id.	Description

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

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			TRUE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			FALSE
Substance	amount in product (mg)	Application	ppm in product

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				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	I927*US48AA6					
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	8.880	mg	supplier	die	Silicon (Si)	7440-21-3		8.648	mg	973874	17296
				supplier	metallization	Aluminium (Al)	7429-90-5		0.052	mg	5856	104
				supplier	metallization	Copper (Cu)	7440-50-8		0.001	mg	112	2
				supplier	Passivation	Silicon Nitride	12033-89-5		0.019	mg	2140	38
				supplier	Passivation	Silicon Oxide	7631-86-9		0.089	mg	10023	178
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.071	mg	7995	142
Leadframe	M-004 Copper and its alloys	172.380	mg	supplier	alloy	Copper (Cu)	7440-50-8		171.920	mg	997331	343840
				supplier	alloy	Iron (Fe)	7439-89-6		0.172	mg	998	344
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.052	mg	302	104
				supplier	metallization	Silver (Ag)	7440-22-4		0.236	mg	1369	472
				supplier	glue	Silver (Ag)	7440-22-4		1.757	mg	854988	3514
Die attach	M-015 Other organic materials	2.055	mg	supplier	glue	Dodecyl acrylate	2156-97-0		0.051	mg	24818	102
				supplier	glue	methylene diacrylate	42594-17-2		0.164	mg	79805	328
				supplier	glue	Diglycidylphenyl glycidyl ether	13561-08-5		0.041	mg	19951	82
				supplier	glue	Isobornyl Methacrylate	7534-94-3		0.021	mg	10219	42
				supplier	glue	dimethylbenzyl peroxide	80-43-3		0.021	mg	10219	42
				supplier	wire	Copper (Cu)	7440-50-8		0.205	mg	1000000	410
Bonding wires	M-011 Other inorganic materials	0.205	mg	supplier	wire	Copper (Cu)	7440-50-8		0.205	mg	1000000	410
				supplier	mold compound	Silica, vitreous	60676-86-0		271.530	mg	864999	543060
				supplier	mold compound	Epoxy resin	25068-38-6		31.391	mg	100001	62782
				supplier	mold compound	Phenol resin	29690-82-2		9.417	mg	29999	18834
Encapsulation	M-011 Other inorganic materials	313.908	mg	supplier	mold compound	Carbon black	1333-86-4		1.570	mg	5001	3140
				supplier	mold compound	Carbon black	1333-86-4		1.570	mg	5001	3140
				supplier	mold compound	Carbon black	1333-86-4		1.570	mg	5001	3140
Connections coating	Solder	2.572	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.572	mg	1000000	5144