



## 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>	2020-11-19
<b>Company Unique ID</b>	NL 008751171B01		
<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>	giovanni giacopello	<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
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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
ECMF4-2459A6M10Y	EC9V*ECMF2CY	A	9957	2020-11-19
	Amount	UoM	Unit type	ST ECOPACK Grade
	7	mg	Each	ECOPACK 2
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
1	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00619150	

Package Designator	Size	Nbr of instances	Shape	
Not Applicable	1.35,2.60,0.75	10	shape	
Comment	DFN.26.135.07-050-10L			

QueryList : RoHS Directive 2011/65/EU-July 2011 Annex II amended by Delegated 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 2020/363_ March 2020	
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 3rd January 2020			
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	0.02	die - leadframe	3286

QueryList : REACH-25th June 2020				
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

Responsible metals sourcing	
Query	Response
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.	true
The following metals are present is the component :	Gold,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

Material Composition Declaration :						Mfr Item Name	EC9V*ECMF2CY					
note : Substance present with less 0.001mg will not be declared in this document												
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	M-011 Other inorganic materials	0.308	mg	supplier	die	Silicon(Si)	7440-21-3		0.289	mg	938311	41283
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.004	mg	12987	571
				supplier	metallisation	Gold(Au)	7440-57-5		0.002	mg	6494	286
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.002	mg	6494	286
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.001	mg	3247	143
				supplier	passivation	Silicon oxide	7631-86-9		0.003	mg	9740	429
				supplier	polymer coating	Durimide	proprietary		0.007	mg	22727	1000
				supplier	alloy & coating	Copper(Cu)	7440-50-8		2.384	mg	965574	340571
Leadframe	M-004 Copper and its alloys	2.469	mg	supplier	alloy & coating	Nickel(Ni)	7440-02-0		0.021	mg	8505	3000
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.058	mg	23491	8286
				supplier	alloy & coating	Phosphorus metal	7723-14-0		0.001	mg	405	143
				supplier	alloy & coating	Zinc(Zn)	7440-66-6		0.003	mg	1215	429
				supplier	alloy & coating	Palladium(Pd)	7440-05-3		0.002	mg	810	286
				supplier	alloy & coating	Silver(Ag)	7440-22-4		0.016	mg	800000	2286
Die attach	M-011 Other inorganic materials	0.020	mg	supplier	glue	Rubber modified epoxy	proprietary		0.002	mg	100000	286
				supplier	glue	Ethoxyethoxy-ethyl acetate	112-15-2		0.002	mg	100000	286
				supplier	tape	Amorphous silica	7631-86-9		0.010	mg	555555	1429
Die attach 2	M-011 Other inorganic materials	0.018	mg	supplier	tape	Epoxy type resin	proprietary		0.005	mg	277778	714
				supplier	tape	Phenol type resin	proprietary		0.003	mg	166667	429
				supplier	wire	Gold(Au)	7440-57-5		0.059	mg	983333	8429
Bonding wires	M-008 Precious metals	0.060	mg	supplier	wire	Palladium(Pd)	7440-05-3		0.001	mg	16667	143
				supplier	mold compound	Silica vitreous	60676-86-0		3.819	mg	925818	545571
Encapsulation	M-011 Other inorganic materials	4.125	mg	supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.165	mg	40000	23571
				supplier	mold compound	Phenol resin	26834-02-6		0.124	mg	30061	17714
				supplier	mold compound	Carbon black	1333-86-4		0.017	mg	4121	2429