



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2020-10-15
<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>	Floriana SAN BIAGIO	<b>Representative Title</b>	AMS product group Material Declaration 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
	MVTU*V280AB5	A	P1C7	2020-10-15
	Amount	UoM	Unit type	ST ECOPACK Grade
	11.6	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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Package Size	Nbr of instances	Shape	
QFN	2 x 2	6	Flat	
Comment	A07B VFQFPN 2X2X0.85 6L PITCH 0.5; MDF is valid for STLQ020PU28R			

QueryList : RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 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	0.06	alloy&coating	5345

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

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update	
Query	Response
The Product does contain at least one of the substances listed in Chemical Control Act	false

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	MVTU*V280AB5	11.6		5000002.0	1000000.0	
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	0.396	mg	supplier	die	Silicon(Si)	7440-21-3		0.376	mg	949495	32414
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.004	mg	10101	345
				supplier	metallisation	Tungsten(W)	7440-33-7		0.003	mg	7576	259
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.001	mg	2525	86
				supplier	passivation	Silicon oxide	7631-86-9		0.007	mg	17677	603
				supplier	polymer coating	polyimide	proprietary		0.005	mg	12626	431
				supplier	alloy	Copper(Cu)	7440-50-8		3.188	mg	958797	274828
Leadframe	M-004 Copper and its alloys	3.325	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.056	mg	16842	4828
				supplier	alloy	Iron phosphide	26508-33-8		0.013	mg	3910	1121
				supplier	metallization	Nickel (Ni)	7440-02-0		0.062	mg	18647	5345
				supplier	metallization	Palladium (Pd)	7440-05-3		0.005	mg	1504	431
				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	301	86
				supplier	tape	Silica vitreous	60676-86-0		0.018	mg	692308	1552
				supplier	tape	Benzaldehyde, 2-hydroxy- polymer	120206-26-0		0.004	mg	153846	345
Die attach	M-015 Other organic materials	0.026	mg	supplier	tape	Bisphenol A Glycidylether	25068-38-6		0.003	mg	115385	259
				supplier	tape	Cyanoguanidine	461-58-5		0.001	mg	38462	86
				supplier	wire	Gold(Au)	7440-57-5		0.029	mg	1000000	2500
Bonding wires	M-008 Precious metals	0.029	mg	supplier	wire	Gold(Au)	7440-57-5		0.029	mg	1000000	2500
				supplier	mold compound	Silica vitreous	60676-86-0		6.885	mg	879985	593534
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.391	mg	49974	33707
				supplier	mold compound	Phenolic resin	205830-20-2		0.305	mg	38983	26293
				supplier	mold compound	Epoxy type resin	proprietary		0.157	mg	20066	13534
Encapsulation	M-011 Other inorganic materials	7.824	mg	supplier	mold compound	Carbon black	1333-86-4		0.016	mg	2045	1379
				supplier	mold compound	other	proprietary		0.070	mg	8947	6034