



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-11-28
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Antonella lanzafame	Representative Title	AMS MD CHAMPION
Representative Phone *	Refer to Supplier Comment section	Representative Email *	Refer to Supplier Comment section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

Uncertainty Statement

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Legal Statement

Supplier Acceptance *	true	Legal Declaration *	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
STLQ020PUR	MVTU*VADJAB5	A	CA2A	2018-11-28
	Amount	UoM	Unit type	ST ECOPACK Grade
	11.60	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
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	2x2x.85	16	flat	
Comment	VFQFPN 2X2X0.85 6L PITCH 0.5			

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	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

ELV directive : 2000/53/EC amended 2016/774 _May 2016	
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

Query : California Prop65 list, dated 27th January 2017			
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
Nickel	0.07	frame	6379

QueryList : REACH-27th Jun 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

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	MVTU*VADJAB5									
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Die	Other Inorganic materials	0.401	mg	supplier	die	Silicon (Si)	7440-21-2		0.373	mg	930175	32155				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.004	mg	9975	345				
				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	7481	259				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	2494	86				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.007	mg	17456	603				
				supplier	polymer die coating	PIXI Polyimide	108-65-6		0.008	mg	19950	690				
				supplier	polymer die coating	PIXI Gamma-butyrolactone	96-48-0		0.005	mg	12469	431				
Leadframe	Copper & its alloys	1.063	mg	supplier	alloy	Copper (Cu)	7440-50-8		0.981	mg	922860	84569				
				supplier	alloy	Iron (Fe)	7439-89-6		0.001	mg	941	86				
				supplier	metallization	Nickel (Ni)	7440-02-0		0.074	mg	69614	6379				
				supplier	metallization	Palladium (Pd)	7440-05-3		0.005	mg	4704	431				
				supplier	metallization	Gold (Au)	7440-57-5		0.002	mg	1881	172				
Die attach	Other Organic Materials	0.055	mg	supplier	glue	fused silica	60876-86-0		0.033	mg	600000	2845				
				supplier	glue	Epoxy Resin	120206-26-0		0.011	mg	200000	948				
				supplier	glue	Bisphenol A Epoxy Resin	25068-38-6		0.008	mg	145455	690				
				supplier	glue	Additives	461-58-5		0.003	mg	54545	259				
				supplier	wire	Gold (Au)	7440-57-5		0.055	mg	982143	4741				
Bonding wires	Precious metals	0.056	mg	supplier	wire	Palladium (Pd)	7440-05-3		0.001	mg	17857	86				
				Encapsulation	Other Organic Materials	10.025	mg	supplier	mold compound	silica vitreous	60876-86-0		8.822	mg	880000	760517
								supplier	mold compound	Biphenyl epoxy resin	29690-82-2		0.501	mg	49975	43190
								supplier	mold compound	Phenolic resin	25068-38-6		0.391	mg	39002	33707
								supplier	mold compound	Epoxy resin	25068-38-6		0.201	mg	20050	17328
supplier	mold compound	carbon black	1333-86-4						0.020	mg	1995	1724				
				supplier	mold compound	other	Proprietary		0.090	mg	8978	7759				