



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 *	2017-02-24
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	FLORIANA SAN BIAGIO	Representative Title	AMG 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

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
	MVBY*U1L6AC5	A	CA2A	2017-02-24
Amount	UoM	Unit type	ST ECOPACK Grade	
3.7	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		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Nicke/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
QFN	1.5x1.5.0.55	8	flat	
Comment	Package: A06V VFQFPN 1.5X1.5X0.55 8L PITCH 0.5: MDF valid for TS3312AQPR/AP			

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

QueryList : REACH-12th January 2017				
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 :						Mfr Item Name	MVBY*U1L6ACS					
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)
Die	Other Inorganic materials	0.287	mg	supplier	die	Silicon (Si)	7440-21-3		0.263	mg	916376	71081
				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	17422	1351
				supplier	metallization	Tungsten (W)	7440-33-7		0.004	mg	13937	1081
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	3484	270
				supplier	Passivation	Silicon Oxide	7631-86-9		0.009	mg	31359	2432
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.005	mg	17422	1351
Leadframe	Copper & its alloys	1.310	mg	supplier	alloy	Copper (Cu)	7440-50-8		1.298	mg	990840	350811
				supplier	alloy	Iron (Fe)	7439-89-6		0.001	mg	763	270
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.001	mg	763	270
				supplier	metallization	Nickel (Ni)	7440-02-0		0.009	mg	6870	2432
				supplier	metallization	Palladium (Pd)	7440-05-3		0.001	mg	763	270
Die attach	Other Organic Materials	0.045	mg	supplier	tape	fused silica	60676-86-0		0.027	mg	600000	7297
				supplier	tape	Epoxy Resin	120206-26-0		0.009	mg	200000	2432
				supplier	tape	Bisphenol A Epoxy Resin	25068-38-6		0.007	mg	155556	1892
				supplier	tape	Additives	461-58-5		0.002	mg	44444	541
Bonding wires	Precious metals	0.041	mg	supplier	wire	Gold (Au)	7440-57-5		0.041	mg	1000000	11081
Encapsulation	Other Organic Materials	2.017	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1.826	mg	905305	493514
				supplier	mold compound	Epoxyde Bisphenol A Resin	25068-38-6		0.050	mg	24789	13514
				supplier	mold compound	Epoxy Resin	Proprietary		0.081	mg	40159	21892
				supplier	mold compound	Phenol Resin	29690-82-2		0.050	mg	24789	13514
				supplier	mold compound	Carbon black	1333-86-4		0.010	mg	4958	2703