



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2016-06-06</b>
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	<b>Floriana San Biagio</b>	<b>Representative Title</b>	<b>AMG MD CHAMPION</b>
<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>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
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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
	RQWQ*UC22AA6	A	Z6HA	2016-06-06
Amount	UoM	Unit type	ST ECOPACK Grade	
17.10	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		
3	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	3x3x1	10	No lead	
Comment	Package:WQ VDFPN 3x3x1.0 10 PITCH 0.50; MDF valid for STEF12EPUR			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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-17th December 2015				
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	RQWQ*UC22AA6					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	Other inorganic materials	1.694	mg	supplier	die	Silicon (Si)	7440-21-3		1.642	mg	969303	96023
				supplier	metallization	Aluminium (Al)	7429-90-5		0.010	mg	5903	585
				supplier	Passivation	Silicon Nitride	12033-89-5		0.004	mg	2361	234
				supplier	Passivation	Silicon Oxide	7631-86-9		0.017	mg	10035	994
				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	590	58
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.006	mg	3542	351
Leadframe	Copper & its alloys	10.106	mg	supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.014	mg	8264	819
				supplier	alloy	Copper (Cu)	7440-50-8		10.057	mg	995151	588129
				supplier	alloy	Iron (Fe)	7439-89-6		0.005	mg	495	292
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.008	mg	792	468
				supplier	metallization	Nickel (Ni)	7440-02-0		0.033	mg	3265	1930
				supplier	metallization	Palladium (Pd)	7440-05-3		0.002	mg	198	117
Die attach	Other Organic Materials	0.368	mg	supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	99	58
				supplier	glue	Silver (Ag)	7440-22-4		0.252	mg	684783	14737
				supplier	glue	methylene diacrylate	42594-17-2		0.092	mg	250000	5380
				supplier	glue	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.011	mg	29891	643
				supplier	glue	Polymer of Polybutadiene + Anhydride	Proprietary		0.011	mg	29891	643
				supplier	glue	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.002	mg	5435	117
Die attach 2	Other Organic Materials	0.363	mg	supplier	glue	Silver (Ag)	7440-22-4		0.297	mg	818182	17368
				supplier	glue	acrylate	65983-31-5		0.022	mg	60606	1287
				supplier	glue	poly butadiene derivative	Proprietary		0.022	mg	60606	1287
				supplier	glue	Epoxy Cresol Novolak	29690-82-2		0.011	mg	30303	643
				supplier	glue	[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	2530-83-8		0.007	mg	19284	409
				supplier	glue	Butadiene copolymer	68891-50-9		0.004	mg	11019	234
Bonding wires	Precious metals	0.180	mg	supplier	wire	Gold (Au)	7440-57-5		0.127	mg	705556	7427
				supplier	wire	Copper (Cu)	7440-50-8		0.053	mg	294444	3099
Encapsulation	Other Organic Materials	4.389	mg	supplier	mold compound	Silica, vitreous	60676-86-0		4.064	mg	925951	237661
				supplier	mold compound	epoxy resin	85954-11-6		0.176	mg	40100	10292
				supplier	mold compound	phenol resin	26834-02-6		0.132	mg	30075	7719
				supplier	mold compound	carbon black	1333-86-4		0.017	mg	3873	994