



## 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
<i>* : Required Field</i>			

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2013-09-26
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	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>	AMS & IPD Materials 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/online_tech_support.html">http://www.st.com/web/en/support/online_tech_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
	1YND*UA29AB5	A	SA1A	2013-09-26
Amount	UoM	Unit type	ST ECOPACK Grade	
44.10	mg	Each	ECOPACK® 2	

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	
Not Applicable ; if coating is used o	Tin (Sn), matte, annealed	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
QFN	4,4,1	24	No lead	
Comment	Package: VFQFPN 4x4x1.0 24 PITCH 0.5			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	<b>true</b>
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList :REACH-19 Dec 2012				
Query				Response
The product does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				<b>true</b>
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	1YND*UA29AB5					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	2.492	mg	Supplier	die	Silicon (Si)	7440-21-3		2.438	mg	978331	55283
die (s)				Supplier	metallization	Aluminium (Al)	7429-90-5		0.001	mg	401	23
die (s)				Supplier	metallization	Copper (Cu)	7440-50-8		0.001	mg	401	23
die (s)				Supplier	metallization	Chromium (Cr)	7440-47-3		0.002	mg	803	45
die (s)				Supplier	metallization	Gold (Au)	7440-57-5		0.006	mg	2408	136
die (s)				Supplier	metallization	Nickel (Ni)	7440-02-0		0.017	mg	6822	385
die (s)				Supplier	metallization	Vanadium (V)	7440-62-2		0.001	mg	401	23
die (s)				Supplier	passivation	Gamma-butyrolactone	96-48-0		0.017	mg	6816	385
die (s)				Supplier	passivation	Polyhydroxyamide	55295-98-2		0.008	mg	3208	181
die (s)				Supplier	passivation	Alcoxysilane	proprietary		0.001	mg	401	23
Leadframe	Other inorganic materials	19.5	mg	Supplier	alloy	Copper (Cu)	7440-50-8		18.15	mg	930769	411565
Leadframe				Supplier	alloy	Iron (Fe)	7439-89-6		0.437	mg	22410	9909
Leadframe				Supplier	alloy	Zinc (Zn)	7440-66-6		0.022	mg	1128	499
Leadframe				Supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.016	mg	821	363
Leadframe				Supplier	metallization	Silver (Ag)	7440-22-4		0.875	mg	44872	19841
Die attach	Other inorganic materials	0.429	mg	Supplier	glue	Silver (Ag)	7440-22-4		0.294	mg	685315	6667
Die attach				Supplier	glue	methylene diacrylate	42594-17-2		0.107	mg	249417	2426
Die attach				Supplier	glue	Dicyclopentenyl ethyl methacrylate	68586-19-6		0.013	mg	30303	295
Die attach				Supplier	glue	Polymer of Polybutadiene + Anhydride	proprietary		0.013	mg	30303	295
Die attach				Supplier	glue	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.002	mg	4662	45
Bonding wire	Precious metals	0.22	mg	Supplier	Bonding wire	Gold (Au)	7440-57-5		0.22	mg	1000000	4989
encapsulation	Other inorganic materials	20.857	mg	Supplier	Moulding Compound	Silica, vitreous	60676-86-0		19.314	mg	900042	437959
encapsulation				Supplier	Moulding Compound	epoxy resin	85954-11-6		0.834	mg	38865	18912
encapsulation				Supplier	Moulding Compound	phenol resin	26834-02-6		0.626	mg	29172	14195
encapsulation				Supplier	Moulding Compound	carbon black	1333-86-4		0.083	mg	3868	1882
connections coating	Solder	0.602	mg	Supplier	solder alloy	Tin (Sn)	7440-31-5		0.602	mg	28053	