



## 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>2013-07-02</b>
<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>	Antonella Lanzafame	<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/internet/com/support/online_tech_support.jsp">http://www.st.com/internet/com/support/online_tech_support.jsp</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
	HYOF*VA01AAJ	A	SA1A	2013-07-02
Amount	UoM	Unit type	ST ECOPACK Grade	
25.00	mg	Each	ECOPACK® 2	

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 ; if coating is used o	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	2.9,2.9,0.8	16	flat	
Comment	OF VFQFPN 3x3x0.9 1.7 16L			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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				true
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	HYOF*VA01AAJ					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Silicon Die	Other inorganic materials	0.988	mg	supplier	Silicon Die	Silicon (Si)	7440-21-3		0.949	mg	960526	37960
Silicon Die			mg	supplier	metallization	Aluminium (Al)	7429-90-5		0.008	mg	8097	320
Silicon Die			mg	supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1012	40
Silicon Die			mg	supplier	metallization	Titanium Nitride (TiN)	25583-20-4		0.002	mg	2024	80
Silicon Die			mg	supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	1012	40
Silicon Die			mg	supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.003	mg	3036	120
Silicon Die			mg	supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.016	mg	16194	640
Silicon Die			mg	supplier	passivation	Gamma-butyrolactone	96-48-0		0.006	mg	6073	240
Silicon Die			mg	supplier	passivation	Polyhydroxyamide	55295-98-2		0.002	mg	2024	80
Leadframe	Copper and its alloy	9.794	mg	Supplier	Alloy	Copper	7440-50-8		9.461	mg	966000	378440
Leadframe			mg	Supplier	Alloy	Iron	7439-89-6		0.221	mg	22565	8840
Leadframe			mg	Supplier	Alloy	Phosphorus	7723-14-0		0.002	mg	204	80
Leadframe			mg	Supplier	Alloy	Zinc	7440-66-6		0.012	mg	1225	480
Leadframe			mg	Supplier	Alloy	Silver	7440-22-4		0.098	mg	10006	3920
Die Attach	Other Organic Material	0.03	mg	Supplier	Glue	Silver	7440-22-4		0.024	mg	800000	960
Die Attach			mg	Supplier	Glue	Carbocyclic Acrylates	proprietary		0.003	mg	100000	120
Die Attach			mg	Supplier	Glue	Bismaleimide resin	proprietary		0.001	mg	33333	40
Die Attach			mg	Supplier	Glue	2-preponoic acid, 2-methyl	68586-19-6		0.001	mg	33333	40
Die Attach			mg	Supplier	Glue	Additive	proprietary		0.001	mg	33333	40
Bonding Wire	Other Inorganic Material	0.2	mg	Supplier	Bonding Wire	Gold	7440-57-5		0.2	mg	1000000	8000
Encapsulation	Other Organic Material	13.878	mg	Supplier	Molding Compound	Silica Fused	60676-86-0		13.004	mg	937023	520160
Encapsulation			mg	Supplier	Molding Compound	Epoxy Resin	Proprietary		0.416	mg	29976	16640
Encapsulation			mg	Supplier	Molding Compound	Phenol Resin	Proprietary		0.416	mg	29976	16640
Encapsulation			mg	Supplier	Molding Compound	Carbon Black	1333-86-4		0.042	mg	3026	1680
Finishing	Other Inorganic Material	0.11	mg	Supplier	Connection coating	Sn	7440-31-5		0.11	mg	1000000	4400