



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 *	2013-06-20
Contact Name *	Refer to "Supplier Comment" section	Contact Title	Refer to "Supplier Comment" section
Contact Phone *	Refer to "Supplier Comment" section	Contact Email *	Refer to "Supplier Comment" section
Authorized Representative *	Giovanni Giacopello	Representative Title	AMS & IPD Materials Declaration 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/internet/com/support/online_tech_support.jsp		

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
	AA72*UL18BC5	A	ZW1A	2013-06-20
Amount	UoM	Unit type	ST ECOPACK Grade	
29.80	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
3	225	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used o	Nicke/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
QFN	3,3,1	16	No lead	
Comment	Package: VFQFPN 16 3x3x1.0 PITCH 0.50			

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-18 June 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	AA72*UL18BC5					
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	2.074	mg	supplier	Silicon Die	Silicon (Si)	7440-21-3		2.002	mg	965284	67181
Silicon Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.016	mg	7715	537
Silicon Die				supplier	metallization	Tungsten (W)	7440-33-7		0.013	mg	6268	436
Silicon Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.003	mg	1446	101
Silicon Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.027	mg	13018	906
Silicon Die				supplier	passivation	Gamma-butyrolactone	96-48-0		0.009	mg	4339	302
Silicon Die				supplier	passivation	Polyhydroxyamide	55295-98-2		0.004	mg	1929	134
Lead-frame	Copper & its alloys	15.987	mg	supplier	alloy	Copper (Cu)	7440-50-8		15.332	mg	959029	514497
Lead-frame				supplier	alloy	Iron (Fe)	7439-89-6		0.37	mg	23144	12416
Lead-frame				supplier	alloy	Phosphorus (P)	7723-14-0		0.005	mg	313	168
Lead-frame				supplier	alloy	Zinc (Zn)	7440-66-6		0.019	mg	1188	638
Lead-frame				supplier	metallization	Nickel (Ni)	7440-02-0		0.255	mg	15950	8557
Lead-frame				supplier	metallization	Palladium (Pd)	7440-05-3		0.005	mg	313	168
Lead-frame				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	63	34
Die attach	Other inorganic materials	0.943	mg	supplier	glue or tape	Proprietary Acrylates	Proprietary		0.123	mg	130435	4128
Die attach				supplier	glue or tape	Silver (Ag)	7440-22-4		0.755	mg	800636	25336
Die attach				supplier	glue or tape	Proprietary Bismaleimide	Proprietary		0.028	mg	29692	940
Die attach				supplier	glue or tape	Methacrylate Ester	Proprietary		0.028	mg	29692	940
Die attach				supplier	glue or tape	Proprietary polymer	Proprietary		0.009	mg	9544	302
Bonding wire	Precious metals	0.164	mg	supplier	wire	Gold (Au)	7440-57-5		0.164	mg	1000000	5503
Encapsulation	Other inorganic materials	10.632	mg	supplier	mold compound	Epoxy resin	Proprietary		0.532	mg	50038	17852
Encapsulation				supplier	mold compound	Silica fused (SiO2)	60676-86-0		9.462	mg	889955	317517
Encapsulation				supplier	mold compound	Phenol Resin	Proprietary		0.319	mg	30004	10705
Encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.021	mg	1975	705
Encapsulation				supplier	mold compound	Metal Hydroxide	Proprietary		0.298	mg	28029	10000