



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2015-07-10</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>	<b>Floriana San Biagio</b>	<b>Representative Title</b>	<b>AMS Materials Declaration 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/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
	AYNB*V393ABL	A	Z6HA	2015-07-10
Amount	UoM	Unit type	ST ECOPACK Grade	
8.07	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 or other bulk termination : add in comments	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	2 - 2 - 0.6	8	No lead	
Comment	Package: UFSON 2x2x0.6 8 PITCH 0.5; MDF valid for TS3321Q2T			

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-17th December 2014				
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	AYNB*V393ABL					
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	0.296	mg	supplier	die	Silicon (Si)	7440-21-3		0.279	mg	942568	34572
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	16892	620
Silicon die				supplier	metallization	Titanium (Ti)	12033-89-5		0.001	mg	3378	124
Silicon die				supplier	passivation	Silicon Nitride (SiN)	7631-86-9		0.001	mg	3378	124
Silicon die				supplier	passivation	Silicon Oxide (SiO2)	7631-86-9		0.01	mg	33784	1239
Leadframe	Copper & its alloys	3.051	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.866	mg	939364	355143
Leadframe				supplier	alloy	Silicon (Si)	7440-21-3		0.016	mg	5244	1983
Leadframe				supplier	alloy	Nickel (Ni)	7440-02-0		0.105	mg	34415	13011
Leadframe				supplier	alloy	Magnesium (Mg)	7439-95-4		0.004	mg	1311	496
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.003	mg	983	372
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.016	mg	5244	1983
Leadframe				supplier	alloy	Manganese (Mn)	7439-96-5		0.002	mg	656	248
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.035	mg	11472	4337
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.003	mg	983	372
Leadframe				supplier	metallization	Gold (Au)	25068-38-6		0.001	mg	328	124
Die attach	Other inorganic materials	0.117	mg	supplier	glue	Epoxyde Bisphenol A Resin	60676-86-0		0.011	mg	94017	1363
Die attach				supplier	glue	Silica, vitreous	112-15-2		0.035	mg	299145	4337
Die attach				supplier	glue	Ethoxyethoxy-ethyl Acetate	1344-28-1		0.025	mg	213675	3098
Die attach				supplier	glue	Aluminium oxide	25036-25-3		0.024	mg	205128	2974
Die attach				supplier	glue	Bisphenol A diglycidyl ether polymer	Proprietary		0.017	mg	145299	2107
Die attach				supplier	glue	Glycol ether ester	80-08-0		0.002	mg	17094	248
Die attach				supplier	glue	Diaminodiphenylsulfone	919-30-2		0.002	mg	17094	248
Die attach				supplier	glue	Aminopropyltriethoxysilane	919-30-2		0.001	mg	8547	124
Bonding wire	Precious metals	0.161	mg	supplier	wire	Gold (Au)	7440-57-5		0.161	mg	1000000	19950
encapsulation	Other inorganic materials	4.035	mg	supplier	mold compound	Silica Fused	60676-86-0		3.535	mg	876084	438042
encapsulation				supplier	mold compound	Epoxy Resin	85954-11-6		0.238	mg	58984	29492
encapsulation				supplier	mold compound	Phenol Resin	26834-02-6		0.238	mg	58984	29492
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.024	mg	5948	2974
Finishing	Other inorganic materials	0.408	mg	supplier	connection coating	Tin (Sn)	7440-31-5		0.408	mg	1000000	50558