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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 *	2015-09-15
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 *	Floriana San Biagio	Representative Title	AMS 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	
<p>While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.</p>	
Legal Statement	
Supplier Acceptance *	true
Legal Declaration *	Standard
Legal Statement	<p>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.</p>

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
	HYNB*VA16AAJ	A	Z6HA	2015-09-15
Amount	UoM	Unit type	ST ECOPACK Grade	
8.07	mg	Each	ECOPACK® 3	
Comment		ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

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 or other bulk termination : add in comments	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	2x2x0.6	8	No lead	
Comment	Package: NB UFSON 2x2x0.6 8 PITCH 0.5; MDF valid for TSZ122IQ2T-OA2ZHA22Q			

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-15th June 2015				
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	HYNB*VA16AAJ					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	0.357	mg	supplier	die	Silicon (Si)	7440-21-3		0.329	mg	921569	40768
Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	14006	620
Die				supplier	metallization	Titanium (Ti)	12033-89-5		0.001	mg	2801	124
Die				supplier	metallization	Tungsten (W)	7631-86-9		0.001	mg	2801	124
Die				supplier	passivation	Silicon Nitride (SiN)	12033-89-5		0.002	mg	5602	248
Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.011	mg	30812	1363
Die				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.008	mg	22409	991
Leadframe	Copper & its alloys	3.028	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.844	mg	939234	352416
Leadframe				supplier	alloy	Silicon (Si)	7440-21-3		0.016	mg	5284	1983
Leadframe				supplier	alloy	Nickel (Ni)	7440-02-0		0.104	mg	34346	12887
Leadframe				supplier	alloy	Magnesium (Mg)	7439-95-4		0.004	mg	1321	496
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.003	mg	991	372
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.016	mg	5284	1983
Leadframe				supplier	alloy	Manganese (Mn)	7439-96-5		0.002	mg	661	248
Leadframe				supplier	metallization	Nickel (Ni)	25068-38-6		0.035	mg	11559	4337
Leadframe				supplier	metallization	Palladium (Pd)	60676-86-0		0.003	mg	991	372
Leadframe				supplier	metallization	Gold (Au)	112-15-2		0.001	mg	330	124
Die attach	Other inorganic materials	0.117	mg	supplier	glue	Epoxye Bisphenol A Resin	1344-28-1		0.011	mg	94017	1363
Die attach				supplier	glue	Silica, vitreous	25036-25-3		0.035	mg	299145	4337
Die attach				supplier	glue	Ethoxyethoxy-ethyl Acetate	Proprietary		0.025	mg	213675	3098
Die attach				supplier	glue	Aluminium oxide	80-08-0		0.024	mg	205128	2974
Die attach				supplier	glue	Bisphenol A diglycidyl ether polymer	919-30-2		0.017	mg	145299	2107
Die attach				supplier	glue	Glycol ether ester	Proprietary		0.002	mg	17094	248
Die attach				supplier	glue	Diaminodiphenylsulfone	80-08-0		0.002	mg	17094	248
Die attach				supplier	glue	Aminopropyltriethoxysilane	919-30-2		0.001	mg	8547	124
Bonding wire	Precious metals	0.16	mg	supplier	wire	Gold (Au)	7440-57-5		0.16	mg	1000000	19827
encapsulation	Other inorganic materials	4.004	mg	supplier	mold compound	Silica Fused	60676-86-0		3.508	mg	876124	434696
encapsulation				supplier	mold compound	Epoxy Resin	85954-11-6		0.236	mg	58941	29244
encapsulation				supplier	mold compound	Phenol Resin	26834-02-6		0.236	mg	58941	29244
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.024	mg	5994	2974
Finishing	Other inorganic materials	0.405	mg	supplier	connection coating	Tin (Sn)	7440-31-5		0.405	mg	1000000	50186