Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	**Response Date ***	2015-04-30
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 *	Flavio Di Francesco	**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

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Legal Statement

Supplier Acceptance *	true	**Legal Declaration ***	Standard

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 omprehensive 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
	FYR2*V633BRL	A	ZS1A	2015-04-30
	Amount	UoM	Unit type	ST ECOPACK Grade
	28.00	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 or other bulk termaination : add in comments	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOJ	3 - 3 - 0.85	10	J bend	
Comment	Package: TSSOP 10 BODY 3.0 PITCH 0.50; Md valid for TSV633IST			

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-16th December 2013				
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	FYR2*V633BRL					
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	0.504	mg	supplier	die	Silicon (Si)	7440-21-3		0.481	mg	954365	17179
Silicon Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.006	mg	11905	214
Silicon Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1984	36
Silicon Die				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	3968	71
Silicon Die				supplier	Passivation	Silicon Oxide	7631-86-9		0.014	mg	27778	500
Lead-frame	Copper & its alloys	12.789	mg	supplier	alloy	Copper (Cu)	7440-50-8		12.443	mg	972946	444393
Lead-frame				supplier	alloy	Iron (Fe)	7439-89-6		0.229	mg	17906	8179
Lead-frame				supplier	alloy	Phosphorus (P)	12185-10-3		0.002	mg	156	71
Lead-frame				supplier	alloy	Zinc (Zn)	7440-66-6		0.013	mg	1016	464
Lead-frame				supplier	metallization	Silver (Ag)	7440-22-4		0.102	mg	7976	3643
Die attach	Solder	0.211	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		0.146	mg	691943	5214
Die attach				supplier	glue or tape	methylene diacrylate	42594-17-2		0.053	mg	251185	1893
Die attach				supplier	glue or tape	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.006	mg	28436	214
Die attach				supplier	glue or tape	Polymer of Polybutadiene + Anhydride	Proprietary		0.006	mg	28436	214
Bonding wire	Precious metals	0.317	mg	supplier	wire	Gold (Au)	7440-57-5		0.317	mg	1000000	11321
Encapsulation	Other inorganic materials	13.479	mg	supplier	molding compound	Silica, vitreous	60676-86-0		11.49	mg	852437	410357
Encapsulation				supplier	molding compound	phenolic resin	Proprietary		0.474	mg	35166	16929
Encapsulation				supplier	molding compound	epoxy resin	Proprietary		0.541	mg	40137	19321
Encapsulation				supplier	molding compound	Biphenyl epoxy resin	85954-11-6		0.27	mg	20031	9643
Encapsulation				supplier	molding compound	carbon black	1333-86-4		0.026	mg	1929	929
Encapsulation				supplier	molding compound	Zinc hydroxide	20427-58-1		0.136	mg	10090	4857
Encapsulation				supplier	molding compound	Magnesium hydroxide	1309-42-8		0.542	mg	40211	19357
connections coating	Solder	0.7	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.7	mg	1000000	25000