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 *	2015-10-22
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/web/en/support/online_tech_support.html		

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
	HYWY*UY35AAA	A	ZS1A	2015-10-22
	Amount	UoM	Unit type	ST ECOPACK Grade
	16.38	mg	Each	ECOPACK® 3

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	
SOT	2.9 - 1.6 - 1.05	5	gull wing	
Comment	Package: SOT 23-5; MD valid for TSX7191AILT - TSX7191ILT			

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**	**HYWY*UY35AAA**					
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	0.803	mg	supplier	die	Silicon (Si)	7440-21-3		0.752	mg	936488	45924
Silicon Die				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	1245	61
Silicon Die				supplier	Passivation	Silicon Nitride	12033-89-5		0.003	mg	3736	183
Silicon Die				supplier	Passivation	Silicon Oxide	7631-86-9		0.018	mg	22416	1099
Silicon Die				supplier	glass coating	Glass: Silicon Dioxide	7631-86-9		0.018	mg	22416	1099
Silicon Die				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.011	mg	13699	672
Lead-frame	Copper & its alloys	7.23	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.965	mg	963347	425344
Lead-frame				supplier	alloy	Iron (Fe)	7439-89-6		0.163	mg	22545	9954
Lead-frame				supplier	alloy	Phosphorus (P)	12185-10-3		0.002	mg	277	122
Lead-frame				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1245	550
Lead-frame				supplier	metallization	Nickel (Ni)	7440-02-0		0.083	mg	11480	5069
Lead-frame				supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	968	427
Lead-frame				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	138	61
Die attach	Other inorganic materials	0.391	mg	supplier	glue or tape (choose)	Silver (Ag)	7440-22-4		0.313	mg	800512	19115
Die attach				supplier	glue or tape	Isobornyl Methacrylate	7534-94-3		0.033	mg	84399	2015
Die attach				supplier	glue or tape	methylene diacrylate	42594-17-2		0.023	mg	58824	1405
Die attach				supplier	glue or tape	Urethane Methacrylate Resin	5888-33-5		0.02	mg	51151	1221
Die attach				supplier	glue or tape	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.002	mg	5115	122
Bonding Wire	Precious Metals	0.151	mg	Supplier	Bonding Wire	Gold (Au)	7440-57-5		0.151	mg	1000000	9221
encapsulation	Other Inorganic Material	7.8	mg	supplier	mold compound	Silica, vitreous	60676-86-0		6.655	mg	853205	406412
encapsulation				supplier	mold compound	phenolic resin	Proprietary		0.273	mg	35000	16672
encapsulation				supplier	mold compound	epoxy resin	Proprietary		0.311	mg	39872	18992
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.156	mg	20000	9527
encapsulation				supplier	mold compound	carbon black	1333-86-4		0.016	mg	2051	977
encapsulation				supplier	mold compound	Zinc hydroxide	20427-58-1		0.078	mg	10000	4763
encapsulation				supplier	mold compound	Magnesium hydroxide	1309-42-8		0.311	mg	39872	18992