



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2014-02-06
<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>	Antonella Lanzafame	<b>Representative Title</b>	AMS & IPD Materials Declaration Champion
<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>	true	<b>Legal Declaration *</b>	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
	IYWY*0941AR6	A	ZS1A	2014-02-06
Amount	UoM	Unit type	ST ECOPACK Grade	
17.10	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 o	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	1.60,2.90,1.15	5	gull wing	
Comment	SOT 23-5; MD valid for CP: TS941A1LT,TS941B1LT,TS9411LT.			

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	IYWY*0941AR6					
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	0.835	mg	supplier	Die	Silicon (Si)	7440-21-3		0.829	mg	992814	48480
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	5988	292
Silicon die				supplier	metallization	Copper (Cu)	7440-50-8		0.001	mg	1198	58
Die Attach	Copper & its alloys	7.677	mg	supplier	Alloy	Copper	7440-50-8		7.395	mg	963267	432456
Die Attach				supplier	Alloy	Iron	7439-89-6		0.173	mg	22535	10117
Leadframe				supplier	Alloy	Phosphorus	7723-14-0		0.002	mg	261	117
Leadframe				supplier	Alloy	Zinc	7440-66-0		0.01	mg	1303	585
Leadframe				supplier	Coating	Nickel	7440-02-0		0.088	mg	11463	5146
Leadframe				supplier	Coating	Palladium	7440-05-3		0.008	mg	1042	468
Leadframe				supplier	Coating	Gold	7440-57-5		0.001	mg	130	58
Die attach	Other Organic Materials	0.071	mg	supplier	Glue	Silver	7440-22-4		0.057	mg	802817	3333
Die attach				supplier	Glue	Carbocyclic Acrylates	Proprietary		0.007	mg	98592	409
Die attach				supplier	Glue	Bismaleimide resin	Proprietary		0.003	mg	42254	175
Die attach				supplier	Glue	2-preponoic acid, 2-methyl	68586-19-6		0.002	mg	28169	117
Die attach				supplier	Glue	Additive	Proprietary		0.002	mg	28169	117
Bonding wire	Other inorganic materials	0.152	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.152	mg	1000000	8889
Encapsulation	Other Organic Materials	8.365	mg	supplier	Molding compound	Epoxy resin-1	Proprietary		0.29	mg	34668	16959
Encapsulation				supplier	Molding compound	Epoxy resin-2	Proprietary		0.25	mg	29886	14620
Encapsulation				supplier	Molding compound	Phenol resin	Proprietary		0.375	mg	44830	21930
Encapsulation				supplier	Molding compound	Silica	60676-86-0		7.267	mg	868739	424971
Encapsulation				supplier	Molding compound	Carbon Black	1333-86-4		0.016	mg	1913	936
Encapsulation				supplier	Molding compound	Others (max2%)	Proprietary		0.167	mg	19964	9766