



## 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
<i>* : Required Field</i>			

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2013-05-14
<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>	Giovanni Giacopello	<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
TSU101ILT	AYWY*V740ABJ	A	ZS1A	2013-05-14
Amount		UoM	Unit type	ST ECOPACK Grade
16.00		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 o	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
SOJ	2.8 - 2.6 - 0.9	5	J bend	
Comment	Package: SOT 23-5			

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-18 June 2012				
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	AYWY*V740ABJ					
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	0.348	mg	supplier	Silicon Die	Silicon (Si)	7440-21-3		0.334	mg	959770	20875
Silicon Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.003	mg	8621	188
Silicon Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	2874	63
Silicon Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.001	mg	2874	63
Silicon Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.006	mg	17241	375
Silicon Die				supplier	passivation	Gamma-butyrolactone	96-48-0		0.002	mg	5747	125
Silicon Die				supplier	passivation	Polyhydroxyamide	55295-98-2		0.001	mg	2874	63
Lead-frame	Copper & its alloys	7.2	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.936	mg	963333	433500
Lead-frame				supplier	alloy	Iron (Fe)	7439-89-6		0.162	mg	22500	10125
Lead-frame				supplier	alloy	Phosphorus (P)	12185-10-3		0.002	mg	278	125
Lead-frame				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1250	563
Lead-frame				supplier	metallization	Nickel (Ni)	7440-02-0		0.083	mg	11528	5188
Lead-frame				supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	972	438
Lead-frame				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	139	63
Die attach	Other inorganic materials	0.07	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		0.048	mg	685714	3000
Die attach				supplier	glue or tape	methylene diacrylate	42594-17-2		0.018	mg	257143	1125
Die attach				supplier	glue or tape	Dicyclopentenloxyethyl methacrylate	68586-19-6		0.002	mg	28571	125
Die attach				supplier	glue or tape	Polymer of Polybutadiene + Anhydride	Proprietary		0.002	mg	28571	125
Bonding wire	Precious metals	0.15	mg	supplier	wire	Gold (Au)	7440-57-5		0.15	mg	1000000	9375
Encapsulation	Other inorganic materials	8.232	mg	supplier	molding compound	Silica, vitreous	60676-86-0		7.027	mg	853620	439188
Encapsulation				supplier	molding compound	phenolic resin	Proprietary		0.287	mg	34864	17938
Encapsulation				supplier	molding compound	epoxy resin	Proprietary		0.328	mg	39845	20500
Encapsulation				supplier	molding compound	Biphenyl epoxy resin	85954-11-6		0.164	mg	19922	10250
Encapsulation				supplier	molding compound	carbon black	1333-86-4		0.016	mg	1944	1000
Encapsulation				supplier	molding compound	Zinc hydroxide	20427-58-1		0.082	mg	9961	5125
Encapsulation				supplier	molding compound	Magnesium hydroxide	1309-42-8		0.328	mg	39845	20500