



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 *	2015-10-07
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 *	Legal Declaration *
true	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 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*V911ARY	A	ZS1A	2015-10-07
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 termination : 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 TSV911IYLT - TSV911AIYLT			

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 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		IYWY*V911ARY					
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	0.556	mg	supplier	die	Silicon (Si)	7440-21-3		0.527	mg	947842	32183	
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	8993	305	
Silicon die				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1799	61	
Silicon die				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	1799	61	
Silicon die				supplier	Passivation	Silicon Oxide	7631-86-9		0.011	mg	19784	672	
Silicon die				supplier	glass coating	Glass: Silicon Dioxide	7631-86-9		0.011	mg	19784	672	
Leadframe	Copper & its alloys	6.782	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.515	mg	960631	397863	
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.164	mg	24182	10015	
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.002	mg	295	122	
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1327	550	
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.084	mg	12386	5130	
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	1032	427	
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	147	61	
Die attach	Other inorganic materials	0.221	mg	supplier	glue or tape (choose)	Silver (Ag)	7440-22-4		0.149	mg	674208	9099	
Die attach				supplier	glue or tape	methylene diacrylate	42594-17-2		0.055	mg	248869	3359	
Die attach				supplier	glue or tape	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.007	mg	31674	427	
Die attach				supplier	glue or tape	Polymer of Polybutadiene + Anhydride	Proprietary		0.007	mg	31674	427	
Die attach				supplier	glue or tape	Bis(α,α -dimethylbenzyl) peroxide	80-43-3		0.001	mg	4525	61	
Die attach				supplier	glue	Dicumyl peroxide	80-43-3		0.002	mg	9050	122	
Bonding wire	Precious metals	0.039	mg	supplier	wire	Gold (Au)	7440-57-5		0.039	mg	1000000	2382	
encapsulation	Other inorganic materials	8.777	mg	supplier	mold compound	Epoxy Resin	Proprietary		0.351	mg	39991	21435	
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.131	mg	14925	8000	
encapsulation				supplier	mold compound	Phenol resin	Proprietary		0.362	mg	41244	22107	
encapsulation				supplier	mold compound	Silica	60676-86-0		7.031	mg	801071	429374	
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.016	mg	1823	977	
encapsulation				supplier	mold compound	Zinc hydroxide	20427-58-1		0.162	mg	18457	9893	
encapsulation				supplier	mold compound	Magnesium hydroxide	1309-42-8		0.724	mg	82488	44214	