



Materials Declaration Form

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

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2015-11-03
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 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*V811AAAY	A	ZS1A	2015-11-03
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	
SOJ	2.9x1.6x1.05	5	J bend	
Comment	Package: SOT 23-5; MD valid for LMV821AIYLT - LMV821IYLT			

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-15 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*V811AAY					
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	0.349	mg	supplier	die	Silicon (Si)	7440-21-3		0.331	mg	948424	20214
Silicon Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.003	mg	8596	183
Silicon Die				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	2865	61
Silicon Die				supplier	Passivation	Silicon Oxide	7631-86-9		0.007	mg	20057	427
Silicon Die				supplier	glass coating	Glass: Silicon Dioxide	7631-86-9		0.007	mg	20057	427
Leadframe	Copper & its alloys	8.078	mg	supplier	Alloy	Copper	7440-50-8		7.782	mg	963357	475237
Leadframe				supplier	Alloy	Iron	7439-89-6		0.182	mg	22530	11115
Leadframe				supplier	Alloy	Phosphorus	7723-14-0		0.002	mg	248	122
Leadframe				supplier	Alloy	Zinc	7440-66-6		0.011	mg	1362	672
Leadframe				supplier	Alloy	Nickel	7440-02-0		0.092	mg	11389	5618
Leadframe				supplier	Alloy	Palladium	7440-05-3		0.008	mg	990	489
Leadframe				supplier	Alloy	Gold	7440-57-5		0.001	mg	124	61
Die Attach	Other Organic Materials	0.154	mg	supplier	glue or tape (choose)	Silver (Ag)	7440-22-4		0.106	mg	688312	6473
Die Attach				supplier	glue or tape	methylene diacrylate	42594-17-2		0.039	mg	253247	2382
Die Attach				supplier	glue or tape	Dicyclopentenylxyethyl methacrylate	68586-19-6		0.004	mg	25974	244
Die Attach				supplier	glue or tape	Polymer of Polybutadiene + Anhydride	Proprietary		0.004	mg	25974	244
Die Attach				supplier	glue or tape	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.001	mg	6494	61
Bonding wire	Precious metals	0.16	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.16	mg	1000000	9771
Encapsulation	Other Organic Materials	7.634	mg	supplier	Molding compound	Silica, vitreous	60676-86-0		6.51	mg	852764	397557
Encapsulation				supplier	Molding compound	phenolic resin	Proprietary		0.267	mg	34975	16305
Encapsulation				supplier	Molding compound	epoxy resin	Proprietary		0.306	mg	40084	18687
Encapsulation				supplier	Molding compound	Biphenyl epoxy resin	85954-11-6		0.152	mg	19911	9282
Encapsulation				supplier	Molding compound	carbon black	1333-86-4		0.016	mg	2096	977
Encapsulation				supplier	Molding compound	Zinc hydroxide	20427-58-1		0.077	mg	10086	4702
Encapsulation				supplier	Molding compound	Magnesium hydroxide	1309-42-8		0.306	mg	40084	18687