



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2015-05-06
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
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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
	HYW8*Z121AFJ	A	ZS1A	2015-05-06
Amount	UoM	Unit type	ST ECOPACK Grade	
6.00	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 or other bulk termination : add in comments	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
SOJ	1.80 - 1.15 - 0.8	5	gull wing	
Comment	Package: SOT 323 5LDS; MD valid for OA1ZHA22C; TSZ121ICT			

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-17th December 2014				
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	HYW8*Z121AFJ					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or Dies	Other inorganic materials	0.308	mg	supplier	die	Silicon (Si)	7440-21-3		0.29	mg	941558	48333
Die or Dies				supplier	metallization	Aluminium (Al)	7429-90-5		0.004	mg	12987	667
Die or Dies				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	3247	167
Die or Dies				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	3247	167
Die or Dies				supplier	Passivation	Silicon Oxide	7631-86-9		0.007	mg	22727	1167
Die or Dies				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.005	mg	16234	833
Leadframe	Copper & its alloys	2.999	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.889	mg	963321	481500
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.067	mg	22341	11167
Leadframe				supplier	alloy	Phosphorus (P)	12185-10-3		0.001	mg	333	167
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.004	mg	1334	667
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.034	mg	11337	5667
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.003	mg	1000	500
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	333	167
Die attach	Other inorganic materials	0.03	mg	supplier	glue or tape	Epoxyde Bisphenol A Resin	25068-38-6		0.003	mg	100000	500
Die attach				supplier	glue or tape	Diaminodiphenylsulfone	80-08-0		0.001	mg	33333	167
Die attach				supplier	glue or tape	Ethoxyethoxy-ethyl Acetate	112-15-2		0.006	mg	200000	1000
Die attach				supplier	glue or tape	Bisphenol A diglycidyl ether polymer	25036-25-3		0.004	mg	133333	667
Die attach				supplier	glue or tape	Glycol ether ester	Proprietary		0.001	mg	33333	167
Die attach				supplier	glue or tape	Silica, vitreous	60676-86-0		0.009	mg	300000	1500
Die attach				supplier	glue or tape	Aluminium oxide	1344-28-1		0.006	mg	200000	1000
Bonding wire	Precious metals	0.024	mg	supplier	wire	Gold (Au)	7440-57-5		0.024	mg	1000000	4000
encapsulation	Other inorganic materials	2.639	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1.844	mg	698750	307333
encapsulation				supplier	mold compound	phenolic resin	Proprietary		0.17	mg	64418	28333
encapsulation				supplier	mold compound	epoxy resin	Proprietary		0.329	mg	124668	54833
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.284	mg	107617	47333
encapsulation				supplier	mold compound	carbon black	1333-86-4		0.012	mg	4547	2000