



## 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>	2017-04-03
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	FLORIANA SAN BIAGIO	<b>Representative Title</b>	AMG MD 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/web/en/support/support.html">http://www.st.com/web/en/support/support.html</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
	HYW8*3011AAJ	A	ZS1A	2017-04-03
Amount	UoM	Unit type	ST ECOPACK Grade	
6.00	mg	Each	ECOPACK® 3	
	Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

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	
ing is used or other bulk terminati	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
SOT	2x1.26x0.93	5	gull wing	
Comment	Package: W8 SOT 323 5LDS; MDF valid for TS3011ICT			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015

Query		Response
1 - Product(s) meets EU RoHS requirement without any exemptions		true
2 - 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
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)		false
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions		false
5 - Product(s) is obsolete, no information is available		false
6 - Product(s) is unknown, no information is available		false
Exemption Id.	Description	

QueryList : REACH-12th January 2017

Query				Response
1 - Product(s) 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*3011AAJ					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	0.332	mg	supplier	die	Silicon (Si)	7440-21-3		0.143	mg	430723	23833
				supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	6024	333
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	6024	333
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	3012	167
				supplier	Passivation	Silicon Oxide	7631-86-9		0.004	mg	12048	667
				supplier	polymer die coating	PIX1 Polyimide	108-65-6		0.180	mg	542169	30000
Leadframe	Copper & its alloys	2.861	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.065	mg	22719	10833
				supplier	alloy	Copper (Cu)	7440-50-8		2.755	mg	962950	459167
				supplier	alloy	Phosphorus (P)	12185-10-3		0.001	mg	350	167
				supplier	alloy	Zinc (Zn)	7440-66-6		0.004	mg	1398	667
				supplier	metallization	Nickel (Ni)	7440-02-0		0.033	mg	11534	5500
				supplier	metallization	Palladium (Pd)	7440-05-3		0.003	mg	1049	500
Die attach	Other Organic Materials	0.020	mg	supplier	glue	Silver (Ag)	7440-22-4		0.015	mg	750000	2500
				supplier	glue	Carbocyclic Acrylates	Proprietary		0.002	mg	100000	333
				supplier	glue	Bismaleimide resin	35325-39-4		0.002	mg	100000	333
				supplier	glue	2-preponoic acid, 2-methyl	68586-19-6		0.001	mg	50000	167
Bonding wires	Precious metals	0.032	mg	supplier	wire	Gold (Au)	7440-57-6		0.032	mg	1000000	5333
Encapsulation	Other Organic Materials	2.755	mg	supplier	mold compound	Epoxy Resin-1	Proprietary		0.055	mg	19964	9167
				supplier	mold compound	Epoxy Resin-2	Proprietary		0.055	mg	19964	9167
				supplier	mold compound	Epoxy Resin	25068-38-6		0.055	mg	19964	9167
				supplier	mold compound	Phenol resin	29690-82-2		0.110	mg	39927	18333
				supplier	mold compound	Silica	60676-86-0		2.474	mg	898004	412333
				supplier	mold compound	Carbon black	1333-86-4		0.006	mg	2178	1000