



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2016-11-07</b>
<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		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>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
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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
	RVWV*UL59J51	A	ZS1A	2016-11-07
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		 life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
ating is used or other bulk terminati	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	2.8x1.5x0.9	5	gull wing	
Comment	Package: WV SOT 23 5L; MDF valid for ST715M33R			

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-20th June 2016				
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	RWWV*UL59J51					
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	0.515	mg	supplier	die	Silicon (Si)	7440-21-3		0.487	mg	945631	30438
				supplier	metallization	Aluminium (Al)	7429-90-5		0.006	mg	11650	375
				supplier	metallization	Tungsten (W)	7440-33-7		0.005	mg	9709	313
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	1942	63
				supplier	Passivation	Silicon Oxide	7631-86-9		0.010	mg	19417	625
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.006	mg	11650	375
Leadframe	Copper & its alloys	6.964	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.694	mg	961229	418375
				supplier	alloy	Iron (Fe)	7439-89-6		0.166	mg	23837	10375
				supplier	alloy	Phosphorus (P)	12185-10-3		0.002	mg	287	125
				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1292	563
				supplier	metallization	Nickel (Ni)	7440-02-0		0.085	mg	12206	5313
				supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	1005	438
Die attach	Other Organic Materials	0.069	mg	supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	144	63
				supplier	glue	Silver (Ag)	7440-22-4		0.048	mg	695652	3000
				supplier	glue	methylene diacrylate	42594-17-2		0.017	mg	246377	1063
				supplier	glue	Dicyclopentenloxyethyl methacrylate	68586-19-6		0.002	mg	28986	125
				supplier	glue	Polymer of Polybutadiene + Anhydride	Proprietary		0.002	mg	28986	125
				supplier	wire	Copper (Cu)	7440-50-8		0.097	mg	1000000	6063
Encapsulation	Other Organic Materials	8.355	mg	supplier	mold compound	Silica, vitreous	60676-86-0		7.028	mg	841173	439250
				supplier	mold compound	phenolic resin	Proprietary		0.315	mg	37702	19688
				supplier	mold compound	epoxy resin	Proprietary		0.362	mg	43327	22625
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.180	mg	21544	11250
				supplier	mold compound	carbon black	1333-86-4		0.018	mg	2154	1125
				supplier	mold compound	Zinc hydroxide	20427-58-1		0.090	mg	10772	5625
				supplier	mold compound	Magnesium hydroxide	1309-42-8		0.362	mg	43327	22625