



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2016-06-27</b>
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	<b>Floriana San Biagio</b>	<b>Representative Title</b>	<b>AMG MD CHAMPION</b>
<b>Representative Phone *</b>	Refer to Supplier Comment section		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>	<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
	PYWY*NGVAYPO	A	ZS1A	2016-06-27
Amount	UoM	Unit type	ST ECOPACK Grade	
16.37	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	
NAC	Nicke/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
DSO	2.9 - 1.6 - 1.05	5	gull wing	
Comment	Package: WY SOT 23-5; MDF valid for STWD100NYWY3F			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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
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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	PYWY*N6VAYPO					
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	0.235	mg	supplier	die	Silicon (Si)	7440-21-3		0.227	mg	965957	13867
				supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	8511	122
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	4255	61
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	4255	61
				supplier	Passivation	Silicon Oxide	7631-86-9		0.004	mg	17021	244
Leadframe	Copper & its alloys	7.234	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.640	mg	917888	405620
				supplier	alloy	Iron (Fe)	7439-89-6		0.492	mg	68012	30055
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.002	mg	276	122
				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1244	550
				supplier	metallization	Nickel (Ni)	7440-02-0		0.083	mg	11474	5070
				supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	968	428
				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	138	61
Die attach	Other Organic Materials	0.077	mg	supplier	glue	Silver (Ag)	7440-22-4		0.055	mg	714286	3360
				supplier	glue	methylene diacrylate	42594-17-2		0.013	mg	168831	794
				supplier	glue	Dicyclopentenyl oxethyl methacrylate	68586-19-6		0.003	mg	38961	183
				supplier	glue	Bismaleimide resin	Proprietary		0.003	mg	38961	183
				supplier	glue	Palladium (Pd)	7440-05-3		0.001	mg	12987	61
supplier	glue	Dicumyl peroxide	80-43-3		0.002	mg	25974	122				
Bonding wires	Precious metals	0.152	mg	supplier	wire	Gold (Au)	7440-57-5		0.152	mg	1000000	9285
Encapsulation	Other Organic Materials	8.672	mg	supplier	mold compound	Epoxy Resin	Proprietary		0.343	mg	39553	20953
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.129	mg	14875	7880
				supplier	mold compound	Phenol resin	Proprietary		0.358	mg	41282	21869
				supplier	mold compound	Silica	60676-86-0		6.951	mg	801545	424618
				supplier	mold compound	Carbon Black	1333-86-4		0.016	mg	1845	977
				supplier	mold compound	Zinc hydroxide	20427-58-1		0.160	mg	18450	9774
supplier	mold compound	Magnesium hydroxide	1309-42-8		0.715	mg	82449	43677				