



## 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>	2016-03-10
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	Refer to "Supplier Comment" section
<b>Contact Phone *</b>	Refer to "Supplier Comment" section	<b>Contact Email *</b>	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/online_tech_support.html">http://www.st.com/web/en/support/online_tech_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
	HUWY*0461AR6	A	Z8GA	2016-03-10
Amount	UoM	Unit type	ST ECOPACK Grade	
16.37	mg	Each	ECOPACK® 3	

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	
Not Applicable ; if coating is used o	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	2.9x1.6x1.05	5	gull wing	
Comment	Package: WY SOT 23 - 5; MDF valid for TS971ILT			

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-15th 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	HUWY*0461AR6		16.37			
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	0.595	mg	supplier	die	Silicon (Si)	7440-21-3		0.59	mg	991597	36042
Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	3361	122
Die				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	3361	122
Die				supplier	Passivation	Silicon Oxide	7631-86-9		0.001	mg	1681	61
Leadframe	Copper & its alloys	6.269	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.11	mg	974637	373244
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.144	mg	22970	8797
Leadframe				supplier	alloy	Phosphorus (P)	12185-10-3		0.008	mg	1276	489
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.007	mg	1117	428
Die Attach	Other inorganic materials	0.095	mg	supplier	glue	Silver (Ag)	7440-22-4		0.077	mg	810526	4704
Die Attach				supplier	glue	Acrylate resins	7534-94-3		0.011	mg	115789	672
Die Attach				supplier	glue	Heterocyclic organic compound	3006-93-7		0.003	mg	31579	183
Die Attach				supplier	glue	Fluoroaliphatic Polymeric Esters	1017237-78-3		0.001	mg	10526	61
Die Attach				supplier	glue	Treated silica	Proprietary		0.003	mg	31579	183
Bonding wire	Precious metals	0.116	mg	supplier	wire	Gold (Au)	7440-57-5		0.116	mg	1000000	7086
encapsulation	Other inorganic materials	8.944	mg	supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.743	mg	83072	45388
encapsulation				supplier	mold compound	Phenol Resin	26834-02-6		0.372	mg	41592	22724
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		7.727	mg	863931	472022
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.046	mg	5143	2810
encapsulation				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.056	mg	6261	3421
connection coating	Solder	0.351	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.351	mg	1000000	21442