



## 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  *: Required Field

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2016-07-22
<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>	Antonella Lanzafame	<b>Representative Title</b>	AMG Materials Declaration 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

**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
TS951IYLT	IYWY*0951ARY	A	ZS1A	2016-07-22
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	Nickel/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: SOT 23-5			

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-20th June 2016				
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	IYWY*0951ARY					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Silicon die	Other inorganic materials	0.78	mg	supplier	die	Silicon (Si)	7440-21-3		0.773	mg	991026	47221
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.003	mg	3846	183
Silicon die				supplier	passivation	Silicon Nitride (SiN)	12033-89-5		0.002	mg	2564	122
Silicon die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.002	mg	2564	122
Leadframe	Copper & its alloys	6.685	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.417	mg	959910	391998
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.165	mg	24682	10079
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.002	mg	299	122
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1346	550
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.084	mg	12565	5131
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	1047	428
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	150	61
Die attach	Other inorganic materials	0.079	mg	supplier	glue	Silver (Ag)	7440-22-4		0.057	mg	721519	3482
Die attach				supplier	glue	methylene diacrylate	42594-17-2		0.013	mg	164557	794
Die attach				supplier	glue	Dicyclopentenloxyethyl methacrylate	68586-19-6		0.003	mg	37975	183
Die attach				supplier	glue	Bismaleimide resin	35325-39-4		0.003	mg	37975	183
Die attach				supplier	glue	Palladium (Pd)	7440-05-3		0.001	mg	12658	61
Die attach				supplier	glue	Dicumyl peroxide	80-43-3		0.002	mg	25316	122
Bonding wire	Precious metals	0.153	mg	supplier	wire	Gold (Au)	7440-57-5		0.153	mg	1000000	9346
encapsulation	Other inorganic materials	8.673	mg	supplier	mold compound	Epoxy Resin	25068-38-6		0.242	mg	27903	14783
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.131	mg	15104	8002
encapsulation				supplier	mold compound	Phenol resin	Proprietary		0.363	mg	41854	22175
encapsulation				supplier	mold compound	Silica	60676-86-0		7.035	mg	811138	429750
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.016	mg	1845	977
encapsulation				supplier	mold compound	Zinc hydroxide	20427-58-1		0.162	mg	18679	9896
encapsulation				supplier	mold compound	Magnesium hydroxide	1309-42-8		0.724	mg	83477	44227