



## 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>	10/14/2014
<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>	Giuseppe Vitali Palma	<b>Representative Title</b>	AMS/IPD 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/internet/com/support/online_tech_support.jsp">http://www.st.com/internet/com/support/online_tech_support.jsp</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
	PZO7*LWA2FC1	A	SH1A	10/14/2014
Amount	UoM	Unit type	ST ECOPACK Grade	
80.00	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	
NAC	nickel/Palladium/Gold/Ag (Ni/Pd/Au/Ag)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	4.85X3.9X1.52	5	gull wing	
Comment	Package: SO 08 .15 JEDEC; MD valid for L4931CD120-TR			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
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)	true
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-16th June 2014				
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	PZ07*LWA2FC1					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	2.167	mg	supplier	die	Silicon (Si)	7440-21-3		2.098	mg	968159	26225
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.027	mg	12460	338
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.009	mg	4153	113
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.012	mg	5538	150
die (s)				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	923	25
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	1846	50
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.015	mg	6922	188
Leadframe	Copper & its alloys	37.906	mg	supplier	alloy	Copper (Cu)	7440-50-8		37.81	mg	997467	472625
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.017	mg	448	213
Leadframe				supplier	alloy	Iron Phosphide (Fe2P)	1310-43-6		0.032	mg	844	400
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.044	mg	1161	550
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.001	mg	26	13
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	26	13
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		0.001	mg	26	13
Die attach	Other Organic Materials	0.726	mg	supplier	glue	Silver (Ag)	7440-22-4		0.661	mg	910468	8263
Die attach				supplier	glue	acrylate	Proprietary		0.036	mg	49587	450
Die attach				supplier	glue	Methacrylate	Proprietary		0.029	mg	39945	363
Bonding wire	Other inorganic materials	0.057	mg	supplier	wire	Copper (Cu)	7440-50-8		0.057	mg	1000000	713
encapsulation	Other Organic Materials	39.144	mg	supplier	mold compound	Epoxy Resin	Proprietary		2.936	mg	75005	36700
encapsulation	Other Organic Materials			supplier	mold compound	Phenol Resin	Proprietary		1.957	mg	49995	24463
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		33.898	mg	865982	423725
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.196	mg	5007	2450
encapsulation				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.157	mg	4011	1963