




## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2013-01-08
<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>	Giovanni Giacopello	<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
<b>Legal Statement</b>	<p>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.</p>

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
TN815-600B	8GDP*TD4NRTS	A	LGGA	2013-01-08
	Amount	UoM	Unit type	ST ECOPACK Grade
	320.00	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	
Not Applicable ; if coating is used on	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	6.5 - 6.1 - 2.3	3	Through-hole	
Comment				

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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)
7c-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a g

QueryList : REACH-18 June 2012				
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	8GDP*TD4NRTS					
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	3.381	mg	supplier	die	Silicon (Si)	7440-21-3		3.006	mg	889086	9394
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.087	mg	25732	272
die (s)				supplier	passivation	Alumina	1344-28-1		0.024	mg	7098	75
die (s)				supplier	passivation	Lead silicate Glass	65997-18-4	7c-1-Electrical and d	0.22	mg	65070	688
die (s)				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.015	mg	4437	47
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.005	mg	1479	16
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.024	mg	7098	75
Leadframe	Copper & its alloys	165.948	mg	supplier	alloy	Copper (Cu)	7440-50-8		164.528	mg	991443	514150
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.165	mg	994	516
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.045	mg	295	153
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		1.199	mg	7225	3747
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.007	mg	42	22
Soft solder	Solder	2.744	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.62	mg	954810	8188
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.069	mg	25146	216
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.055	mg	20044	172
Bonding wire	Aluminium & its alloys	0.173	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.172	mg	994220	538
Bonding wire				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	5780	3
encapsulation	Other Organic Materials	146.709	mg	supplier	mold compound	Epoxy Resin	Proprietary		4.401	mg	29998	13753
encapsulation				supplier	mold compound	2,2'-(3,3',5,5'-tetramethyl-1,1'-biphenyl)-4,4'	EC 413-900-7		5.868	mg	39998	18338
encapsulation				supplier	mold compound	phenol resin	Proprietary		7.335	mg	49997	22922
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		128.371	mg	875004	401159
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.734	mg	5003	2294
connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3266