



## 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>	2014-06-24
<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>	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/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

**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
	A8V2*L690AA6	A	BO2A	2014-06-24
Amount	UoM	Unit type	ST ECOPACK Grade	
5600.00	mg	Each	ECOPACK® 1	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
NAC	NAC	NAC		
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	
ZIP	20 - 10.7 - 4.5	15	Through-hole	
Comment	Package: MULTIWATT 15L SPLIT VERT; MD valid for CP: STA540, STA540S.			

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)

QueryList : REACH-16th December 2013				
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	ABV2*L690AA6					
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	10.868	mg	supplier	die	Silicon (Si)	7440-21-3		10.469	mg	963287	1869
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.163	mg	14998	29
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.046	mg	4233	8
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.087	mg	8005	16
die (s)				supplier	passivation	Gamma-butyrolactone	96-48-0		0.062	mg	5705	11
die (s)				supplier	passivation	Polyhydroxyamide	55295-98-2		0.028	mg	2576	5
die (s)				supplier	passivation	Alcoxysilane	proprietary		0.002	mg	184	0
die (s)				supplier	passivation	Aryl Siliclic Acid	proprietary		0.001	mg	92	0
die (s)				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	92	0
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	184	0
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.007	mg	644	1
Leadframe	Copper & its alloys	3048.365	mg	supplier	alloy	Copper (Cu)	7440-50-8		3039.58	mg	997118	542782
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		1.4	mg	459	250
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		2.557	mg	839	457
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		4.828	mg	1584	862
Soft solder	Solder	7.636	mg	JIG Table A	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	7.445	mg	974987	1329
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.115	mg	15060	21
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.076	mg	9953	14
Bonding wire	Precious metals	1.585	mg	supplier	wire	Copper (Cu)	7440-50-8		1.585	mg	1000000	283
encapsulation	Other inorganic materials	2509.576	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1806.895	mg	720000	322660
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		426.628	mg	170000	76184
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		180.689	mg	72000	32266
encapsulation				JIG table B	mold compound	Brominated epoxy resin	40039-93-8		37.644	mg	15000	6722
encapsulation				supplier	mold compound	Carbon black	1333-86-4		7.528	mg	3000	1344
encapsulation				JIG table B	mold compound	Antimony Trioxide	1309-64-4		50.192	mg	20000	8963
connections coating	Solder	21.97	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		21.97	mg	1000000	3923