



## 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>	2016-07-18
<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>	Rossana Bonaccorso	<b>Representative Title</b>	ADG 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/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
<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
TDA2004R	H8V1*L249EA6	A	BO2A	2016-07-18
Amount	UoM	Unit type	ST ECOPACK Grade	
5500.00	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	
NAC	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	10.7x20x4.5	11	flat	
Comment	Package: MULTIWATT 11L SPLIT VERT.			

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 '7a' 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-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	H8V1*L249EAG					
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	4.601	mg	supplier	die	Silicon (Si)	7440-21-3		4.456	mg	968485	810
				supplier	metallization	Aluminium (Al)	7429-90-5		0.056	mg	12171	10
				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.019	mg	4130	3
				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.026	mg	5651	5
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.004	mg	869	1
				supplier	back side metallization	Gold (Au)	7440-57-5		0.009	mg	1956	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.091	mg	6738	6
				Leadframe	Copper & its alloys	4334.536	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						1.992	mg	460	362
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						3.637	mg	839	661
supplier	metallization	Silver (Ag)	7440-22-4						4.339	mg	1001	788
supplier	metallization	Lead (Pb)	7439-92-1					7a-Lead in high me	3.634	mg	975047	661
Die attach	Other inorganic materials	3.727	mg	JIG - R	Soft Solder	Silver (Ag)	7440-22-4		0.056	mg	15025	10
				supplier	Soft Solder	Tin (Sn)	7440-31-5		0.037	mg	9928	7
				supplier	wire	Copper (Cu)	7440-50-8		0.818	mg	1000000	149
Encapsulation	Other organic materials	1130.929	mg	supplier	mold compound	Silica, vitreous	60676-86-0		810.877	mg	717002	147432
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		192.258	mg	170000	34956
				supplier	mold compound	Phenol resin	9003-35-4		81.427	mg	72000	14805
				supplier	mold compound	Brominated epoxy resin	40039-93-8		16.964	mg	15000	3084
				supplier	mold compound	Bismuth	7440-69-9		3.392	mg	2999	617
				supplier	mold compound	Carbon black	1333-86-4		3.392	mg	2999	617
				supplier	mold compound	Antimony Trioxide	1309-64-4		22.619	mg	20000	4113
Connections coating	Solder	25.389	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		25.389	mg	1000000	4616