



## 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

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-07-06
<b>Contact Name *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Authorized Representative *</b>	Rossana Bonaccorso
<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
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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
L9911P	K8BV*UH66AA6	A	64BA	2018-07-06
Amount	UoM	Unit type	ST ECOPACK Grade	
5258.00	mg	Each	ECOPACK1	
Comment		ECOPACK® or ECOPACK® 1 is STMicroelectronics trade name for ROHS compliant devices		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
NA	NA	NA		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy		
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape
SIP	10,3-19,6-4,5	8	Through hole
Comment	MULTIWATT 8L ON LINE		

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	FALSE
2 - 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
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	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 : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 25th May 2018			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.12	Die	22
Lead	15.58	Soft solder	2962
Antimony trioxide	18.86	Mold compound	3587

QueryList : REACH-15th January 2018				
Query				Response
1 - Product(s) 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
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	K8BV*UH66AA6					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	23.653	mg	supplier	die	Silicon (Si)	7440-21-3		22.632	mg	956832	4304
				supplier	metallization	Aluminium (Al)	7429-90-5		0.170	mg	7187	32
				supplier	metallization	Titanium (Ti)	7440-32-6		0.022	mg	930	4
				supplier	Passivation	Silicon Nitride	12033-89-5		0.036	mg	1522	7
				supplier	Passivation	Silicon Oxide	7631-86-9		0.456	mg	19280	87
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.013	mg	550	2
				supplier	back side metallization	Gold (Au)	7440-57-5		0.034	mg	1438	6
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.115	mg	4862	22
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.175	mg	7399	35
Leadframe	M-004 Copper and its alloys	4259.669	mg	supplier	alloy	Copper (Cu)	7440-50-8		4251.497	mg	998082	808577
				supplier	alloy	Iron (Fe)	7439-89-6		4.257	mg	999	810
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		1.277	mg	300	243
				supplier	metallization	Silver (Ag)	7440-22-4		2.638	mg	619	502
Soft solder	Solder	15.975	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	15.575	mg	974961	2962
				supplier	solder	Silver (Ag)	7440-22-4		0.240	mg	15023	46
				supplier	solder	Tin (Sn)	7440-31-5		0.160	mg	10016	30
Bonding wires	M-011 Other inorganic materials	9.160	mg	supplier	wire	Gold (Au)	7440-57-5		3.004	mg	327948	571
				supplier	wire	Aluminium (Al)	7429-90-5		6.156	mg	672052	1171
Encapsulation	M-011 Other inorganic materials	943.112	mg	supplier	mold compound	Silica, vitreous	60676-86-0		676.212	mg	717001	128606
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		160.329	mg	170000	30492
				supplier	mold compound	Phenol resin	9003-35-4		67.904	mg	72000	12914
				supplier	mold compound	Brominated epoxy resin	40039-93-8		14.147	mg	15000	2691
				supplier	mold compound	Antimony Trioxide	1309-64-4		18.862	mg	20000	3587
				supplier	mold compound	Bismuth	7440-69-9		2.829	mg	3000	538
				supplier	mold compound	Carbon black	1333-86-4		2.829	mg	2999	538
Connections coating	Solder	6.431	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.431	mg	1000000	1223