



## 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>	2018-06-15
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier Comment section		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>	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

**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
SCTW90N65G2V	T46J*SQFJ0V2	A	3068	2018-06-15
	Amount	UoM	Unit type	ST ECOPACK Grade
	5380	mg	Each	ECOPACK® 2
Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant ( in each organic material)			

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
Not Applicable	Not Applicable	Not Applicable		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	x	3	Through-hole	
Comment	Package: HIP-247 IN LINE HEAT SINK 2MM			

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
8a	Lead in solders to attach electrical and electronic components to electronic circuit boards and lead in finishes on terminations of components other than electrolyte aluminium capacitors, on component pins and on electronic circuit boards

QueryList : California Prop65 list, dated 29th December 2017			
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	12.06	Die - Leadframe	2241
Lead	11.31	Soft solder	2102

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
-	-			0
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
-	-	0.00		

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	T46J*SQFJ0VZ					
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	12.106	mg	supplier	die	Silicium carbide	409-21-2		11.438	mg	944821	2126
				supplier	metallization	Aluminium (Al)	7429-90-5		0.257	mg	21229	48
				supplier	Passivation	Silicon Nitride	12033-89-5		0.061	mg	5039	11
				supplier	Passivation	Silicon Oxide	7631-86-9		0.091	mg	7517	17
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.006	mg	496	1
				supplier	back side metallization	Gold (Au)	7440-57-5		0.019	mg	1569	4
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.088	mg	7269	16
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.146	mg	12060	27
				supplier	alloy	Copper (Cu)	7440-50-8		4084.027	mg	995768	759113
				supplier	alloy	Iron (Fe)	7439-89-6		4.089	mg	997	760
Leadframe	M-004 Copper and its alloys	4101.385	mg	supplier	alloy	Iron Phosphide (FeP)	26508-33-8		1.227	mg	299	228
				supplier	metallization	Nickel (Ni)	7440-02-0		11.968	mg	2918	2225
				supplier	metallization	Phosphorus (P)	7723-14-0		0.074	mg	18	14
				supplier	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	11.307	mg	954983	2102
				supplier	solder	Silver (Ag)	7440-22-4		0.296	mg	25000	55
Soft solder	Solder	11.840	mg	supplier	solder	Tin (Sn)	7440-31-5		0.237	mg	20017	44
				supplier	wire	Aluminium (Al)	7429-90-5		6.926	mg	1000000	1287
				supplier	mold compound	Silica, vitreous	60676-86-0		970.045	mg	783000	180306
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		185.832	mg	150000	34541
Encapsulation	M-011 Other inorganic materials	1238.882	mg	supplier	mold compound	Phenol resin	9003-35-4		61.944	mg	50000	11514
				supplier	mold compound	Triphenylphosphine	603-35-0		9.911	mg	8000	1842
				supplier	mold compound	Bismuth compound	7440-69-9		4.956	mg	4000	921
				supplier	mold compound	Carbon Black	1333-86-4		6.194	mg	5000	1151
				supplier	solder alloy	Tin (Sn)	7440-31-5		8.861	mg	1000000	1647
connections coating	Solder	8.861	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		8.861	mg	1000000	1647