



## 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>	2018-07-20
<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>	MD CHAMPION NAME	<b>Representative Title</b>	Group 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
BTA06-600BRG	7BVT*066VHL1	A	3068	2018-07-20
	Amount	UoM	Unit type	ST ECOPACK Grade
	1900	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, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10 - 15.5 - 4.5	3	Through-hole	
Comment	TO 220 I CLIP			

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	3.74	Die - Leadframe	1968
Lead	19.28	Soft solder - solder paste	10146
Lead-Borate Glass	0.96	Die	506

QueryList : REACH-27th June 2018				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	18.32	Soft solder - solder paste	9640
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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	1000 ppm	18.32	Soft solder - solder paste	18316000

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	7BVT*066VHL1					
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	5.610	mg	supplier	die	Silicon (Si)	7440-21-3		4.384	mg	781462	2307
				supplier	metallization	Gold (Au)	7440-57-5		0.017	mg	3030	9
				supplier	passivation	Nickel (Ni)	7440-02-0		0.088	mg	15686	46
				supplier	Passivation	Silicon Oxide	7631-86-9		0.035	mg	6239	18
				supplier	back side metallization	Gold (Au)	7440-57-5		0.006	mg	1070	3
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.119	mg	21212	63
Leadframe	M-004 Copper and its alloys	1613.505	mg	supplier	alloy	Lead-Borate Glass	65997-18-4	7c-I-Electrical and e	0.961	mg	171301	506
				supplier	alloy	Copper (Cu)	7440-50-8		1608.107	mg	996654	846372
				supplier	alloy	Iron (Fe)	7439-89-6		0.741	mg	459	390
Soft solder	Solder	4.612	mg	supplier	alloy	Iron Phosphide (FeP)	26508-33-8		1.353	mg	839	712
				supplier	metallization	Nickel (Ni)	7440-02-0		3.304	mg	2048	1739
				SVHC	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	4.244	mg	920208	2234
				supplier	solder	Silver (Ag)	7440-22-4		0.115	mg	24935	61
				supplier	solder	Tin (Sn)	7440-31-5		0.230	mg	49870	121
				supplier	solder	flux residue	Proprietary		0.023	mg	4987	12
Encapsulation	M-011 Other inorganic materials	199.020	mg	supplier	clip	Copper (Cu)	7440-50-8		31.625	mg	1000000	16645
				supplier	mold compound	Silica, vitreous	60676-86-0		151.256	mg	760004	79608
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		20.300	mg	102000	10684
				supplier	mold compound	Phenol resin	9003-35-4		11.941	mg	59999	6285
				supplier	mold compound	Others	Proprietary		9.951	mg	50000	5237
solder paste	Solder	16.556	mg	supplier	mold compound	Metal hydroxide	Proprietary		3.980	mg	19998	2095
				supplier	mold compound	Carbon black	1333-86-4		1.592	mg	7999	838
				SVHC	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	14.072	mg	849964	7406
				supplier	solder	Antimony (Sb)	7440-36-0		1.656	mg	100024	872
connections coating	Solder	6.314	mg	supplier	solder	Tin (Sn)	7440-31-5		0.828	mg	50012	436
				supplier	solder alloy	Tin (Sn)	7440-31-5		6.314	mg	1000000	3323
Ceramic	M-010 Ceramics / glass	22.758	mg	supplier	ceramic	Alumina	1344-28-1		22.530	mg	989982	11858
				supplier	metallization	Nickel (Ni)	7440-02-0		0.228	mg	10018	120