



## 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>	2018-09-19
<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
T1635T-8G	7BD1*168SAS1	A	3068	2018-09-19
	Amount	UoM	Unit type	ST ECOPACK Grade
	1600.00	mg	Each	ECOPACK2
	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
3	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-10.5-1.27	3	gull wing	
Comment	D2PAK CLIP; MDF valid also for T1635T-8G-TR			

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)
7c-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)
10a	Electrical and electronic components which contain lead in a glass or ceramic, in a glass or ceramic matrix compound, in a glass-ceramic material, or in a glass-ceramic matrix compound. This exemption does not cover the use of lead in: — glass in bulbs and glaze of spark plugs, — dielectric ceramic materials of components listed under 10(b), 10(c) and 10(d)

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	0.31	Die	196
Lead	27.35	Die - Soft solder	17094
Lead-Borate Glass	1.45	Die	906

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	27.351	Soft solder	17094
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	21.068	Die	713710
Lead	1000 ppm	6.283	Soft solder	920316

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	7BD1*168SA51					
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	29.519	mg	supplier	die	Silicon (Si)	7440-21-3		6.617	mg	224161	4136
				supplier	metallization	Gold (Au)	7440-57-5		0.025	mg	847	16
				supplier	metallization	Nickel (Ni)	7440-02-0		0.133	mg	4506	83
				JIG - R	Passivation	Lead (Pb)	7439-92-1	7a-Lead in high mel	21.068	mg	713710	13168
				supplier	Passivation	Silicon Oxide	7631-86-9		0.038	mg	1286	24
				supplier	back side metallization	Gold (Au)	7440-57-5		0.008	mg	271	5
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.180	mg	6098	113
Leadframe	M-004 Copper and its alloys	700.749	mg	JIG-R & California 65	glass coating	Lead-Borate Glass	65997-18-4		1.450	mg	49121	906
				supplier	alloy	Copper (Cu)	7440-50-8		699.838	mg	998700	437399
				supplier	alloy	Iron (Fe)	7439-89-6		0.701	mg	1000	438
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.210	mg	300	131
				JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	6.283	mg	920316	3927
Soft solder	Soldier	6.827	mg	supplier	solder	Silver (Ag)	7440-22-4		0.170	mg	24902	106
				supplier	solder	Tin (Sn)	7440-31-5		0.340	mg	49802	213
				supplier	solder	flux residue	Proprietary		0.034	mg	4980	21
Encapsulation	M-011 Other inorganic materials	824.966	mg	supplier	mold compound	Silica, vitreous	60676-86-0		626.974	mg	760000	391859
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		84.147	mg	102000	52590
				supplier	mold compound	Phenol resin	9003-35-4		49.498	mg	60000	30936
				supplier	mold compound	Others	Proprietary		41.248	mg	50000	25780
				supplier	mold compound	Metal hydroxide	Proprietary		16.499	mg	20000	10312
				supplier	mold compound	Carbon black	1333-86-4		6.600	mg	8000	4125
connections coating	Soldier	6.314	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.314	mg	1000000	3946
Clip	M-004 Copper and its alloys	31.625	mg	supplier	alloy	Copper ( Cu)	7440-50-8		31.625	mg	1000000	19766