



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D * : Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2019-03-12
Company Unique ID	NL 008751171801		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	Representative Title	ADG MD CHAMPION
Representative Phone *	Refer to Supplier Comment section	Representative Email *	Refer to Supplier Comment section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

Uncertainty Statement

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Legal Statement

Supplier Acceptance *	true	Legal Declaration *	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
T1625T-8I	7BVT*168NGS1	A	SH1A	2019-03-12
	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)
7c-l	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- 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	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)
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.

QueryList : California Prop65 list, dated 23rd November 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	3.85	Die - Leadframe	2024
Lead	20.35	Soft solder - solder paste	10710
Lead-Borate Glass	1.45	Die	763

QueryList : REACH-15th January 2019				
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	20.35	Soft solder - solder paste	10710
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	20.35	Soft solder - solder paste	1770210

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	7BVT*168NGS1					
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	8.466	mg	supplier	die	Silicon (Si)	7440-21-3		6.617	mg	781597	3483
				supplier	metallization	Gold (Au)	7440-57-5		0.025	mg	2953	13
				supplier	passivation	Nickel (Ni)	7440-02-0		0.133	mg	15710	70
				supplier	Passivation	Silicon Oxide	7631-86-9		0.053	mg	6260	28
				supplier	back side metallization	Gold (Au)	7440-57-5		0.008	mg	945	4
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.180	mg	21262	95
Leadframe	M-004 Copper and its alloys	1608.998	mg	JIG-R & California 65	glass coating	Lead-Borate Glass	65997-18-4	7c-I-Electrical and e	1.450	mg	171273	763
				supplier	alloy	Copper (Cu)	7440-50-8		1603.606	mg	996649	844003
				supplier	alloy	Iron (Fe)	7439-89-6		0.739	mg	459	389
Soft solder	Solder	6.821	mg	SVHC	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	6.277	mg	920246	3304
				supplier	solder	Silver (Ag)	7440-22-4		0.170	mg	24923	89
				supplier	solder	Tin (Sn)	7440-31-5		0.340	mg	49846	179
				supplier	solder	flux residue	Proprietary		0.034	mg	4985	18
				supplier	solder	Nickel (Ni)	7440-02-0		3.304	mg	2053	1739
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		1.349	mg	839	710
Clip	M-004 Copper and its alloys	31.625	mg	supplier	clip	Copper (Cu)	7440-50-8		31.625	mg	1000000	16645
				supplier	metallization	Nickel (Ni)	7440-02-0		3.304	mg	2053	1739
Encapsulation	M-011 Other inorganic materials	198.462	mg	supplier	mold compound	Silica, vitreous	60676-86-0		150.831	mg	759999	79385
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		20.243	mg	101999	10654
				supplier	mold compound	Phenol resin	9003-35-4		11.908	mg	60001	6267
				supplier	mold compound	Others	Proprietary		9.923	mg	49999	5223
				supplier	mold compound	Metal hydroxide	21645-51-2		3.969	mg	19999	2089
				supplier	mold compound	Carbon black	1333-86-4		1.588	mg	8003	835
Solder paste	Solder	16.556	mg	SVHC	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	14.072	mg	849964	7406
				supplier	solder	Antimony (Sb)	7440-36-0		1.656	mg	100024	872
				supplier	solder	Tin (Sn)	7440-31-5		0.828	mg	50012	436
Connections coating	Solder	6.314	mg	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