



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2019-10-30
Company Unique ID	NL 008751171B01		
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 *	Giovanni Giacobello	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

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
T2035H-8I	7BVT*208SAMS	A	SH1A	2019-10-30
	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 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				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. 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 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	4.05	Die - Leadframe	2131	
Lead	24.23	Soft solder - solder paste	12752	
Lead-Borate Glass	2.39	Die	1260	

QueryList : REACH-16th July 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	26.62	Die - Soft solder - solder paste	14012
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	10.16	Soft solder	920261
Lead	1000 ppm	14.07	Solder paste	849964
Lead-Borate Glass	1000 ppm	2.39	Die	171257

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	78VT*208SAMS									
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	13.979	mg	supplier	die	Silicon (Si)	7440-21-3		10.925	mg	781529	5750				
				supplier	metallization	Gold (Au)	7440-57-5		0.042	mg	3005	22				
				supplier	passivation	Nickel (Ni)	7440-02-0		0.219	mg	15666	115				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.088	mg	6295	46				
				supplier	back side metallization	Gold (Au)	7440-57-5		0.014	mg	1002	7				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.297	mg	21246	156				
Leadframe	M-004 Copper and its alloys	1600.341	mg	JIG-R & California 65	glass coating	Lead-Borate Glass	65997-18-4	7c-1-Electrical and e	2.394	mg	171257	1260				
				supplier	alloy	Copper (Cu)	7440-50-8		1594.960	mg	996638	839453				
				supplier	alloy	Iron (Fe)	7439-89-6		0.735	mg	458	388				
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		1.342	mg	839	706				
				supplier	metallization	Nickel (Ni)	7440-02-0		3.304	mg	2065	1739				
Soft solder	Solder	11.036	mg	SVHC	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	10.156	mg	920261	5345				
				supplier	solder	Silver (Ag)	7440-22-4		0.275	mg	24918	145				
				supplier	solder	Tin (Sn)	7440-31-5		0.550	mg	49837	289				
				supplier	solder	flux residue	Proprietary		0.055	mg	4984	29				
				supplier	clip	Copper (Cu)	7440-50-8		31.625	mg	1000000	16645				
Clip	M-004 Copper and its alloys	31.625	mg	supplier	clip	Copper (Cu)	7440-50-8		31.625	mg	1000000	16645				
				Encapsulation	M-011 Other inorganic materials	197.391	mg	supplier	mold compound	Silica, vitreous	60676-86-0		150.017	mg	759999	78956
								supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		20.134	mg	102001	10597
								supplier	mold compound	Phenol resin	9003-35-4		11.843	mg	59998	6233
								supplier	mold compound	Others	Proprietary		9.870	mg	50002	5195
supplier	mold compound	Metal hydroxide	Proprietary		3.948	mg	20001	2078								
Solder paste	Solder	16.556	mg	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				
				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				
				supplier	ceramic	Alumina	1344-28-1		22.530	mg	989982	11858				
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				