



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 *	2018-11-09
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 Giacopello	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
T810-600G-TR	7BD1*086FBC1	A	3068	2018-11-09
Amount	UoM	Unit type	ST ECOPACK Grade	
1380.00	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	
1	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			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 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 : 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	0.22	Die - Leadframe	156
Lead	19.85	Soft solder	14383
Lead-Borate Glass	1.00	Die	721

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	18.85	Die - Soft solder	13662
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	15.46	Die	762808
Lead	1000 ppm	4.39	Soft solder	920193

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	7BD1*086FBC1					
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	20.262	mg	supplier	die	Silicon (Si)	7440-21-3		4.542	mg	224163	3291
				supplier	metallization	Gold (Au)	7440-57-5		0.017	mg	839	12
				supplier	metallization	Nickel (Ni)	7440-02-0		0.091	mg	4491	66
				JIG - R	Passivation	Lead (Pb)	7439-92-1	7c-4-Electrical and e	14.461	mg	713701	10479
				supplier	Passivation	Silicon Oxide	7631-86-9		0.026	mg	1283	19
				supplier	back side metallization	Gold (Au)	7440-57-5		0.006	mg	296	4
Leadframe	M-004 Copper and its alloys	700.748	mg	supplier	back side metallization	Nickel (Ni)	7440-02-0		0.124	mg	6120	90
				JIG - R & California 65	glass coating	Lead-Borate Glass	65997-18-4	7c-4-Electrical and e	0.995	mg	49107	721
				supplier	alloy	Copper (Cu)	7440-50-8		699.837	mg	998700	507128
				supplier	alloy	Iron (Fe)	7439-89-6		0.701	mg	1000	508
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.210	mg	300	152
				supplier	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	4.393	mg	920193	3183
Soft solder	Solder	4.774	mg	JIG - R	solder	Silver (Ag)	7440-22-4		0.119	mg	24927	86
				supplier	solder	Tin (Sn)	7440-31-5		0.238	mg	49853	172
				supplier	solder	Rux residue	Proprietary		0.024	mg	5027	17
				supplier	solder	Silica, vitreous	60676-86-0		468.370	mg	759999	339399
Encapsulation	M-011 Other inorganic materials	616.277	mg	supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		62.860	mg	102000	45551
				supplier	mold compound	Phenol resin	9003-35-4		36.977	mg	60001	26795
				supplier	mold compound	Others	Proprietary		30.814	mg	50000	22329
				supplier	mold compound	Metal hydroxide	Proprietary		12.326	mg	20000	8934
				supplier	mold compound	Carbon black	1333-86-4		4.930	mg	8000	3572
connections coating	Solder	6.314	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.314	mg	1000000	4575
clip	M-004 Copper and its alloys	31.625	mg	supplier	alloy	Copper (Cu)	7440-50-8		31.625	mg	1000000	22917