



Materials Declaration Form

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

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2020-04-14
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
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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
T410-800T	7BVP*048FBC1	A	3068	2020-04-14
	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	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	CD00407446	

Package Designator	Size	Nbr of instances	Shape	
SIP	10.00,9.10,4.50	3	Through hole	
Comment	TO 220 NI CLIP. MDF valid for CPs: T410-700T,T410-800T			

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 3rd January 2020			
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	0.19	die	98
Lead	3.13	soft solder	1645
Lead-Borate Glass	0.86	die	453

QueryList : REACH-16th January 2020				
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	2.26	Soft solder	1192
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	2.264	Soft solder	920325

Material Composition Declaration :						Mfr Item Name	7BVP*048FBC1					
note : Substance present with less 0.001mg will not be declared in this document												
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	5.026	mg	supplier	die	Silicon(Si)	7440-21-3		3.927	mg	781337	2067
				supplier	metallisation	Gold(Au)	7440-57-5		0.020	mg	3979	11
				supplier	metallisation	NickeI(Ni)	7440-02-0		0.186	mg	37008	97
				supplier	passivation	Silicon oxide	7631-86-9		0.032	mg	6367	17
				JIG-R & California 65	glass	Lead-BorateGlass	65997-18-4	7c-I-Electrical and electronic	0.861	mg	171309	453
Leadframe	M-004 Copper and its alloys	1253.000	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		1251.747	mg	999000	658814
				supplier	alloy & coating	Copper Posphorous(CuP)	12517-41-8		1.253	mg	1000	659
Soft solder	Solder	2.460	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	2.264	mg	920325	1192
				supplier	solder	Silver(Ag)	7440-22-4		0.061	mg	24797	32
				supplier	solder	Tin(Sn)	7440-31-5		0.123	mg	50000	65
				supplier	solder	Flux residue	proprietary		0.012	mg	4878	6
Encapsulation	M-011 Other inorganic materials	601.536	mg	supplier	mold compound	Silica vitreous	60676-86-0		446.340	mg	742000	234916
				supplier	mold compound	Phenol resin	9003-35-4		30.077	mg	50000	15830
				supplier	mold compound	Epoxy Cresol Novolac	29690-82-2		66.169	mg	110000	34826
				supplier	mold compound	other	proprietary		54.138	mg	90000	28494
				supplier	mold compound	Carbon black	1333-86-4		4.812	mg	8000	2533
connections coating	Solder	6.362	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348
Clip	M-004 Copper and its alloys	31.616	mg	supplier	alloy	Copper(Cu)	7440-50-8		31.616	mg	1000000	16640