



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 *	2020-09-15
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 Giapello	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
SCT1000N170	T46J*K17F0Z2	A	3068	2020-09-15
	Amount	UoM	Unit type	ST ECOPACK Grade
	4500	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		
Not Applicable	Not Applicable	Not Applicable		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00708200	



Package Designator	Size	Nbr of instances	Shape	
SIP	15.75,20.15,5.15	3	Through hole	
Comment	HiP-247 IN LINE HEAT SINK 2MM			

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	1.26	Die -Leadframe	280
Lead	0.95	Soft solder	211

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	0.95	Soft solder	211
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	0.95	Soft solder	954728

Material Composition Declaration :						Mfr Item Name	T46J*K17F022					
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	1.532		supplier	die	Silicium carbide	409-21-2		1.479	mg	965468	329
				supplier	metallisation	Gold(Au)	7440-57-5		0.005	mg	3264	1
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.020	mg	13056	4
				supplier	metallisation	Silver(Ag)	7440-22-4		0.004	mg	2611	1
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.001	mg	1959	0
				supplier	passivation	Silicon oxide	7631-86-9		0.002	mg	1304	0
Leadframe	M-004 Copper and its alloys	2709.936	mg	supplier	polymer coating	PIX1 Gamma-butyrolactone	proprietary		0.019	mg	12338	4
				supplier	alloy & coating	Copper(Cu)	7440-50-8		2705.049	mg	998197	601122
				supplier	alloy & coating	Nickel(Ni)	7440-02-0		1.242	mg	458	276
				supplier	alloy & coating	Iron(Fe)	7439-89-6		1.246	mg	460	277
				supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8		2.275	mg	839	505
Soft solder	Solder	0.994	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	0.949	mg	954728	211
				supplier	solder	Silver(Ag)	7440-22-4		0.025	mg	25151	6
				supplier	solder	Tin(Sn)	7440-31-5		0.020	mg	20121	4
				supplier	wire	Aluminium (Al)	7429-90-5		0.369	mg	1000000	82
Bonding wires	M-003 Aluminum and its alloys	0.369	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.187	mg	994681	42
Bonding wires 2	M-003 Aluminum and its alloys	0.188	mg	supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	5319	0
Encapsulation	M-011 Other inorganic materials	1765.855	mg	supplier	mold compound	Silica vitreous	60676-86-0		1382.665	mg	783000	307259
				supplier	mold compound	Epoxy Cresol Novolac	29690-82-2		264.878	mg	150000	58862
				supplier	mold compound	Phenol resin	9003-35-4		88.293	mg	50000	19621
				supplier	mold compound	Triphenylphosphine	603-35-0		14.127	mg	8000	3139
				supplier	mold compound	Bismuth compound	7440-69-9		7.063	mg	4000	1570
				supplier	mold compound	Carbon black	1333-86-4		8.829	mg	5000	1962
Connections coating	Solder	21.126	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		21.126	mg	1000000	4695