



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 *	2019-05-22
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

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
SM15T100A	8HZH*TWU101K	A	64BA	2019-05-22
Amount	UoM	Unit type	ST ECOPACK Grade	
250.00	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	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOJ	6.69-5.63-2.38	2	J bend	
Comment	SMC CLIP (SOD 15); MDF valid also for CP: STRVS118X02C			

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 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	0.82	Die - Leadframe	3284
Lead	3.91	Soft solder	15620

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	3.91	Soft solder	15620
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	3.905	Soft solder	920339

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	8ZH*TWU101K					
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	5.063	mg	supplier	die	Silicon (Si)	7440-21-3		4.909	mg	969583	19636
				supplier	metallization	Aluminium (Al)	7429-90-5		0.028	mg	5530	112
				supplier	metallization	Gold (Au)	7440-57-5		0.020	mg	3950	80
				supplier	metallization	Nickel (Ni)	7440-02-0		0.021	mg	4148	84
				supplier	Passivation	Silicon Oxide	7631-86-9		0.028	mg	5530	112
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.019	mg	3753	76
				supplier	back side metallization	Gold (Au)	7440-57-5		0.007	mg	1383	28
Leadframe	M-004 Copper and its alloys	79.540	mg	supplier	back side metallization	Nickel (Ni)	7440-02-0		0.031	mg	6123	124
				supplier	alloy	Copper (Cu)	7440-50-8		78.668	mg	989037	314672
				supplier	alloy	Iron (Fe)	7439-89-6		0.079	mg	993	316
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.024	mg	302	96
				supplier	metallization	Nickel (Ni)	7440-02-0		0.769	mg	9668	3076
Soft solder	Solder	4.243	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	3.905	mg	920339	15620
				supplier	solder	Silver (Ag)	7440-22-4		0.106	mg	24983	424
				supplier	solder	Tin (Sn)	7440-31-5		0.211	mg	49729	844
				supplier	solder	flux residue	Proprietary		0.021	mg	4949	84
Encapsulation	M-011 Other inorganic materials	119.668	mg	supplier	mold compound	Amorphous Silica	7631-86-9		87.477	mg	730997	349908
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		22.737	mg	190001	90948
				supplier	mold compound	Phenol resin	9003-35-4		3.590	mg	30000	14360
				supplier	mold compound	Bisphenol A-bisphenol A diglycidyle ether poly	25036-25-3		3.590	mg	30000	14360
				supplier	mold compound	Carbon black	1333-86-4		1.077	mg	9000	4308
				supplier	mold compound	Triphenylphosphine	603-35-0		0.838	mg	7002	3352
connections coating	Solder	1.972	mg	supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		0.359	mg	3000	1436
				supplier	solder alloy	Tin (Sn)	7440-31-5		1.972	mg	1000000	7888
Clip		39.514	mg	supplier	alloy	Copper (Cu)	7440-50-8		39.514	mg	1000000	158056