



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 *	2019-03-18
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
STD11N65M5	TQDP*M5FCB5V	A	994X	2019-03-18
Amount	UoM	Unit type	ST ECOPACK Grade	
330.00	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	
SIP	6.5-6.1-2.3	3	GULL WING	
Comment	TO 252 DPAK			

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	0.20	Die	618
Lead	3.96	Soft solder	11985

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	3.955	Soft solder	11985
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	3.955	Soft solder	954853

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	TQDP**MSFCBSV									
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	4.627	mg	supplier	die	Silicon (Si)	7440-21-3		4.269	mg	922628	12936				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.080	mg	17290	242				
				supplier	metallization	Copper (Cu)	7440-50-8		0.029	mg	6268	88				
				supplier	metallization	Nickel (Ni)	7440-02-0		0.175	mg	37821	530				
				supplier	metallization	Silver (Ag)	7440-22-4		0.010	mg	2162	30				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	648	9				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.018	mg	3890	55				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.002	mg	432	6				
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	432	6				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.029	mg	6268	88				
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.010	mg	2161	30				
				Leadframe	M-004 Copper and its alloys	164.943	mg	supplier	alloy	Copper (Cu)	7440-50-8		164.151	mg	995198	497427
								supplier	alloy	CopperPhosphorous (CuP)	12517-41-8		0.330	mg	2001	1000
supplier	alloy	Cobalt (Co)	7440-48-4						0.462	mg	2801	1400				
Soft solder	Solder	4.142	mg	8G- R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	3.955	mg	954853	11985				
				supplier	solder	Silver (Ag)	7440-22-4		0.104	mg	25108	315				
				supplier	solder	Tin (Sn)	7440-31-5		0.083	mg	20039	252				
Bonding wires	M-003 Aluminum and its alloys	0.923	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.923	mg	1000000	2797				
Encapsulation	M-011 Other inorganic materials	154.320	mg	supplier	mold compound	Fused Silica	60676-86-0		131.943	mg	854996	399827				
				supplier	mold compound	Phenol resin Novolak	26834-02-6		7.716	mg	50000	23382				
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		7.716	mg	50000	23382				
				supplier	mold compound	Poly Phenyl Glycidyl Ether co-Dicyclopentadien	119345-05-0		5.401	mg	34998	16368				
				supplier	mold compound	Benzaldehyde hydroxy polymer	106466-55-1		0.772	mg	5003	2339				
connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3167				