



## Materials Declaration Form

<b>IPC Form Type *</b>	1752 Distribute	<b>Version</b>	2
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D  <i>* : Required Field</i>

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-09-13
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	Giovanni Giapello	<b>Representative Title</b>	ADG MD Champion
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty Statement**


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Legal Statement		
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>
		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
STD12NF06T4	TODP*AD6AB3F	A	998G	2018-09-13
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	TRUE
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)	FALSE
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 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	1.12	Die - Leadframe	3385
Lead	1.47	Soft solder	4461

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	1.472	Soft solder	4461
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	1.472	Soft solder	924623

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	TODP*AD6AB3F					
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	1.592	mg	supplier	die	Silicon (Si)	7440-21-3		1.508	mg	947236	4570
				supplier	metallization	Aluminium (Al)	7429-90-5		0.053	mg	33291	161
				supplier	metallization	Titanium (Ti)	7440-32-6		0.010	mg	6281	30
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	1258	6
				supplier	Passivation	Silicon Oxide	7631-86-9		0.006	mg	3769	18
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	628	3
				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	1256	6
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.010	mg	6281	30
Leadframe	M-004 Copper and its alloys	166.051	mg	supplier	alloy	Copper (Cu)	7440-50-8		164.729	mg	992039	499179
				supplier	alloy	Iron (Fe)	7439-89-6		0.165	mg	994	500
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.050	mg	300	152
				supplier	metallization	Nickel (Ni)	7440-02-0		1.107	mg	6667	3355
Soft solder	Solder	1.592	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	1.472	mg	924623	4461
				supplier	solder	Tin (Sn)	7440-31-5		0.080	mg	50251	242
				supplier	solder	Silver (Ag)	7440-22-4		0.040	mg	25126	121
				supplier	wire	Aluminium (Al)	7429-90-5		0.923	mg	1000000	2797
Encapsulation	M-011 Other inorganic materials	158.797	mg	supplier	mold compound	Silica Fused	60676-86-0		120.685	mg	759995	365712
				supplier	mold compound	Silica amorphous	7631-86-9		11.275	mg	71003	34167
				supplier	mold compound	Epoxy resin.	Proprietary		15.880	mg	100002	48121
				supplier	mold compound	Phenolic Resin	Proprietary		6.352	mg	40001	19248
				supplier	mold compound	Flame Retardant	Proprietary		3.176	mg	20000	9624
connections coating	Solder	1.045	mg	supplier	mold compound	Carbon Black	1333-86-4		1.429	mg	8999	4330
				supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3167