



## 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>	2017-12-11
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Rossana Bonaccorso	<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
STD46P4LLF6	TXDP*6B44B62	A	3068	2017-12-11
	Amount	UoM	Unit type	ST ECOPACK Grade
	290.00	mg	Each	ECOPACK2

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-April 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)

Query : California Prop65 list, dated 27th January 2017			
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	0.12	Die / Leadframe	403
Lead	3.43	Soft solder	11841
Cobalt	0.46	Leadframe	1593

QueryList : REACH-12th January 2017				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	TXDP*6B44B62					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	2.741	mg	supplier	die	Silicon (Si)	7440-21-3		2.657	mg	969354	9162
				supplier	metallization	Aluminium (Al)	7429-90-5		0.032	mg	11675	110
				supplier	Passivation	Silicon Oxide	7631-86-9		0.015	mg	5472	52
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.003	mg	1095	10
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.025	mg	9121	86
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.009	mg	3283	31
Leadframe	Copper & its alloys	165.043	mg	supplier	alloy	Copper (Cu)	7440-50-8		164.152	mg	994601	566041
				supplier	alloy	CopperPhosphorous (CuP)	12517-41-8		0.330	mg	1999	1138
				supplier	alloy	Cobalt (Co)	7440-48-4		0.462	mg	2799	1593
				supplier	metallization	Nickel (Ni)	7440-02-0		0.092	mg	557	317
				supplier	metallization	Phosphorus (P)	12185-10-3		0.007	mg	44	24
				supplier	metallization	Lead (Pb)	7439-92-1	7a-Lead in high me	3.434	mg	954950	11841
Soft solder	Solder	3.596	mg	JIG - R	solder	Silver (Ag)	7440-22-4		0.090	mg	25028	310
				supplier	solder	Tin (Sn)	7440-31-5		0.072	mg	20022	248
				supplier	solder	Aluminium (Al)	7429-90-5		1.005	mg	996036	3466
Bonding wires	Other inorganic materials	1.009	mg	supplier	wire	Magnesium (Mg)	7439-95-4		0.004	mg	3964	14
				supplier	wire	Aluminium (Al)	7429-90-5		1.005	mg	996036	3466
Encapsulation	Other Organic Materials	116.566	mg	supplier	mold compound	Silica, vitreous	60676-86-0		101.995	mg	874998	351707
				supplier	mold compound	Tetramethyl-biphenyl-diyl-bis oxymethylene-b	EC 413-900-7		4.663	mg	40003	16079
				supplier	mold compound	Epoxy Resin	25068-38-6		3.497	mg	30000	12059
				supplier	mold compound	phenol resin	29690-82-2		5.828	mg	49997	20097
				supplier	mold compound	Carbon black	1333-86-4		0.583	mg	5002	2012
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Connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3603