



## 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

*\* : Required Field*


Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2016-04-29
<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
<b>Legal Statement</b>	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STB18N65M5	TLD2*M5F3B52	A	SHENZHEN B/E	2016-04-29
	Amount	UoM	Unit type	ST ECOPACK Grade
	1500.00	mg	Each	ECOPACK2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-9.15-4.5	2	GULL WING	
Comment	D2PAK			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	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 : REACH-17th December 2015				
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						Mfr Item Name	TLD2*M5F3B52					
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	8.047	mg	supplier	die	Silicon (Si)	7440-21-3		7.471	mg	928421	4981
				supplier	metallization	Aluminium (Al)	7429-90-5		0.139	mg	17274	93
				supplier	metallization	Titanium (Ti)	7440-32-6		0.005	mg	619	3
				supplier	metallization	Nickel (Ni)	7440-02-0		0.306	mg	38027	204
				supplier	metallization	Silver (Ag)	7440-22-4		0.018	mg	2237	12
				supplier	Passivation	Silicon Nitride	12033-89-5		0.032	mg	3977	21
				supplier	Passivation	Silicon Oxide	7631-86-9		0.003	mg	373	2
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	497	3
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.051	mg	6338	34
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.018	mg	2237	12
Leadframe	Copper & its alloys	779.567	mg	supplier	alloy	Copper (Cu)	7440-50-8		777.537	mg	997396	518358
				supplier	alloy	Iron (Fe)	7439-89-6		0.358	mg	459	239
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.654	mg	839	436
				supplier	metallization	Nickel (Ni)	7440-02-0		1.012	mg	1298	675
				supplier	metallization	Phosphorus (P)	12185-10-3		0.006	mg	8	4
Soft solder	Solder	7.143	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	6.821	mg	954921	4547
				supplier	solder	Silver (Ag)	7440-22-4		0.179	mg	25059	119
				supplier	solder	Tin (Sn)	7440-31-5		0.143	mg	20020	95
Bonding wires	Other inorganic materials	0.686	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.685	mg	998833	457
				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	1167	1
Encapsulation	Other Organic Materials	702.068	mg	supplier	mold compound	Silica, vitreous	60676-86-0		614.310	mg	875001	409540
				supplier	mold compound	Tetramethyl-biphenyl-diyl-bis oxymethylene-b	EC 413-900-7		28.083	mg	40000	18722
				supplier	mold compound	Epoxy Resin	25068-38-6		21.062	mg	30000	14041
				supplier	mold compound	phenol resin	29690-82-2		35.103	mg	49999	23402
Connections coating	Solder	2.489	mg	supplier	mold compound	Carbon black	1333-86-4		3.510	mg	5000	2340
				supplier	solder alloy	Tin (Sn)	7440-31-5		2.489	mg	1000000	1659