



## 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>	2016-04-08
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Giovanni Giacobello	<b>Representative Title</b>	IPD 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
STGWA15H120DF2	TDWT*KGJFT5F	A	Z8GA	2016-04-08
Amount	UoM	Unit type	ST ECOPACK Grade	
6100.00	mg	Each	ECOPACK® 2	

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	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	15.8 - 19.9 - 5	3	Through-hole	
Comment	Package: TO247 3L LONG LEADS			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	<b>true</b>
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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	false
Exemption Id.	Description

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				<b>true</b>
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	TDWT*KGIFTSF					
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	11.567	mg	supplier	die	Silicon (Si)	7440-21-3		10.760	mg	930233	1764
				supplier	metallization	Aluminium (Al)	7429-90-5		0.467	mg	40373	77
				supplier	Passivation	Silicon Nitride	12033-89-5		0.085	mg	7348	14
				supplier	Passivation	Silicon Oxide	7631-86-9		0.187	mg	16167	31
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.011	mg	951	2
				supplier	back side metallization	Gold (Au)	7440-57-5		0.006	mg	519	1
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.008	mg	692	1
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.043	mg	3717	7
Leadframe	Copper & its alloys	3993.656	mg	supplier	alloy	Copper(CU)	7440-50-8		3988.464	mg	998700	653847
				supplier	alloy	Iron (Fe)	7439-89-6		3.993	mg	1000	655
				supplier	alloy	Phosphorus(P)	12185-10-3		1.199	mg	300	197
				supplier	solder	Tin(Sn)	7440-31-5		2.435	mg	649853	399
Solder paste	Solder	3.747	mg	supplier	solder	Silver(Ag)	7440-22-4		0.937	mg	250067	154
				supplier	solder	antimony	7440-36-0		0.375	mg	100080	61
				supplier	wire	Aluminium (Al)	7429-90-5		4.887	mg	1000000	801
Bonding wires	Other organic materials	4.887	mg	supplier	mold compound	Epoxy resin	29690-82-2		143.355	mg	70000	23501
				supplier	mold compound	Phenol resin	9003-35-4		51.198	mg	25000	8393
				supplier	mold compound	Silica	60676-86-0		1535.945	mg	750000	251794
				supplier	mold compound	Metal hydroxide	proprietary	307.188	mg	150000	50359	
				supplier	mold compound	Carbon black	1333-86-4		10.240	mg	5000	1679
Finishing	Solder	38.217	mg	supplier	solder alloy	Tin(Sn)	7440-31-5		38.217	mg	1000000	6265