



## 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

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2016-05-30
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Giovanni Giacobello	<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
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**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
STW13NK100Z	TSLW*EZ096WF	A	Z8GA	2016-05-30
Amount	UoM	Unit type	ST ECOPACK Grade	
4430.00	mg	Each	ECOPACK® 2	

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

Package Designator	Size	Nbr of instances	Shape	
SIP	15.75X20.15X5.15	3	Through-hole	
Comment	Package: TO 247			

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-15th June 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	TSLW*EZ096WF					
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	47.618	mg	supplier	die	Silicon (Si)	7440-21-3		45.963	mg	965244	10375
				supplier	metallization	Aluminium (Al)	7429-90-5		0.647	mg	13587	146
				supplier	Passivation	Silicon Nitride	12033-89-5		0.217	mg	4557	49
				supplier	Passivation	Silicon Oxide	7631-86-9		0.344	mg	7224	78
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.022	mg	462	5
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.314	mg	6594	71
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.111	mg	2331	25
Leadframe	Copper & its alloys	2738.661	mg	supplier	alloy	Copper (Cu)	7440-50-8		2723.161	mg	994340	614709
				supplier	alloy	Iron (Fe)	7439-89-6		1.254	mg	458	283
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		2.291	mg	837	517
				supplier	metallization	Nickel (Ni)	7440-02-0		11.881	mg	4338	2682
				supplier	metallization	Phosphorus (P)	12185-10-3		0.074	mg	27	17
Soft solder	Other Organic Materials	10.176	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met	9.717	mg	954894	2193
				supplier	solder	Silver (Ag)	7440-22-4		0.255	mg	25059	58
				supplier	solder	Tin (Sn)	7440-31-5		0.204	mg	20047	46
				supplier	wire	Aluminium (Al)	7429-90-5		2.696	mg	1000000	609
Encapsulation	Other Organic Materials	1624.697	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1413.487	mg	870000	319072
				supplier	mold compound	Epoxy resin	Proprietary		162.470	mg	100000	36675
				supplier	mold compound	Phenol resin	40.617		40.617	mg	25000	9169
				supplier	mold compound	Carbon Black	1333-86-4		8.123	mg	5000	1834
	Other inorganic materials	6.152	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.152	mg	1000000	1389