



## 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>	2016-11-04
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Giovanni Giacopello	<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
ESDA5V3SC5	8BWJ*EAX5V34	A	Z8GA	2016-11-04
Amount		UoM	Unit type	ST ECOPACK Grade
16.00		mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
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	
DSO	2.8 - 1.5 - 0.9	5	gull wing	
Comment	Package: SOT 23 5 LEADS TRANSIL ARRAY			

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	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
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-20th June 2016				
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	88WJ*EAX5V34					
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	0.600	mg	supplier	die	Silicon (Si)	7440-21-3		0.506	mg	843333	31625
				supplier	metallization	Aluminium (Al)	7429-90-5		0.081	mg	135000	5063
				supplier	Passivation	Silicon Oxide	7631-86-9		0.007	mg	11667	438
				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	1667	63
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.005	mg	8333	313
Leadframe	Other inorganic materials	7.016	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.776	mg	965792	423500
				supplier	alloy	Iron (Fe)	7439-89-6		0.159	mg	22662	9938
				supplier	alloy	Phosphorus (P)	12185-10-3		0.002	mg	285	125
				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1283	563
				supplier	metallization	Silver (Ag)	7440-22-4		0.070	mg	9977	4370
Die Attach	Other inorganic materials	0.067	mg	supplier	glue	Silver (Ag)	7440-22-4		0.055	mg	820896	3438
				supplier	glue	Acrylate resins	7534-94-3		0.008	mg	119403	500
				supplier	glue	Heterocyclic organic compound	3006-93-7		0.002	mg	29851	125
				supplier	glue	Treated silica	Proprietary		0.002	mg	29851	125
Bonding wire	Other inorganic materials	0.069	mg	supplier	wire	Copper (Cu)	7440-50-8		0.069	mg	1000000	4313
Encapsulation	Other inorganic materials	7.854	mg	supplier	mold compound	Epoxy Resin	25068-38-6		0.589	mg	74994	36813
				supplier	mold compound	Phenol Resin	29690-82-2		0.393	mg	50038	24563
				supplier	mold compound	Silica, vitreous	60676-86-0		6.802	mg	866056	425125
				supplier	mold compound	Carbon black	1333-86-4		0.039	mg	4966	2438
				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.031	mg	2047	1938
Connections coating	Solder	0.394	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.394	mg	1000000	24625