




## 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>	2017-04-13
<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 omprehensive 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
ESDA14V2SC5	8BWJ*EAW14V4	A	Z8GA	2017-04-13
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	 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	
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

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	0.01	die backside metal	313

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						Mfr Item Name	8BWJ*EAW14V4		16.0000			
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	0.689	mg	supplier	die	Silicon (Si)	7440-21-3		0.594	mg	862119	37125
				supplier	metallization	Aluminium (Al)	7429-90-5		0.081	mg	117562	5063
				supplier	Passivation	Silicon Oxide	7631-86-9		0.007	mg	10160	438
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	1451	63
				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	1451	63
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.005	mg	7257	313
Leadframe	Other inorganic materials	6.974	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.735	mg	965730	420938
				supplier	alloy	Iron (Fe)	7439-89-6		0.158	mg	22656	9875
				supplier	alloy	Phosphorus (P)	12185-10-3		0.002	mg	286	125
				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1291	563
				supplier	metallization	Silver (Ag)	7440-22-4		0.070	mg	10037	4375
				supplier	glue	Silver (Ag)	7440-22-4		0.055	mg	820895	3438
Die Attach	Other inorganic materials	0.067	mg	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
				supplier	wire	Copper (Cu)	7440-50-8		0.069	mg	1000000	4313
Encapsulation	Other inorganic materials	7.809	mg	supplier	mold compound	Epoxy Resin	25068-38-6		0.586	mg	75042	36625
				supplier	mold compound	Phenol Resin	29690-82-2		0.391	mg	50070	24438
				supplier	mold compound	Silica, vitreous	60676-86-0		6.762	mg	865924	422625
				supplier	mold compound	Carbon black	1333-86-4		0.039	mg	4994	2438
				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.031	mg	3970	1932
Connections coating	Solder	0.392	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.392	mg	1000000	24500