



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D
<i>* : Required Field</i>			

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2016-08-30
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Floriana San Biagio	Representative Title	AMG MD CHAMPION
Representative Phone *	Refer to Supplier Comment section	Representative Email *	Refer to Supplier Comment section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

Uncertainty Statement

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Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	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
	ZPO7*LWA2FC1	A	SH1A	2016-08-30
Amount	UoM	Unit type	ST ECOPACK Grade	
80.00	mg	Each	ECOPACK® 2	
	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)		

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	Nicke/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
DSO	4.85x3.9x1.52	8	gull wing	
Comment	Package: 07 SO 08 .15 JEDEC; MDF valid for L4931ABD120TR			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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
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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	ZPO7*LWA2FC1					
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	2.167	mg	supplier	die	Silicon (Si)	7440-21-3		2.098	mg	968159	26225
				supplier	metallization	Aluminium (Al)	7429-90-5		0.027	mg	12460	338
				supplier	Passivation	Silicon Nitride	12033-89-5		0.009	mg	4153	113
				supplier	Passivation	Silicon Oxide	7631-86-9		0.012	mg	5538	150
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	923	25
				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	1846	50
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.015	mg	6922	188
				supplier	back side metallization	Copper (Cu)	7440-50-8		34.057	mg	969898	425713
Leadframe	Copper & its alloys	35.114	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.801	mg	22811	10013
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.048	mg	1367	600
				supplier	alloy	Zinc (Zn)	7440-66-6		0.042	mg	1196	525
				supplier	metallization	Nickel (Ni)	7440-02-0		0.151	mg	4300	1888
				supplier	metallization	Palladium (Pd)	7440-05-3		0.005	mg	142	63
				supplier	metallization	Gold (Au)	7440-57-5		0.005	mg	142	63
				supplier	metallization	Silver (Ag)	7440-22-4		0.005	mg	142	63
				supplier	metallization	Silver (Ag)	7440-22-4		0.005	mg	142	63
Die attach	Other Organic Materials	0.792	mg	supplier	glue	Silver (Ag)	7440-22-4		0.696	mg	878788	8700
				supplier	glue	Isobornyl Methacrylate	7534-94-3		0.040	mg	50505	500
				supplier	glue	Urethane Methacrylate Resin	5888-33-5		0.040	mg	50505	500
				supplier	glue	Acrylate polymer	87320-05-6		0.016	mg	20202	200
				supplier	wire	Copper (Cu)	7440-50-8		0.084	mg	1000000	1050
Bonding wires	Other inorganic materials	0.084	mg	supplier	wire	Copper (Cu)	7440-50-8		0.084	mg	1000000	1050
				supplier	mold compound	Silica, vitreous	60676-86-0		36.237	mg	866023	452963
				supplier	mold compound	Epoxy Resin	Proprietary		3.138	mg	74995	39225
				supplier	mold compound	Phenol Resin	Proprietary		2.092	mg	49996	26150
				supplier	mold compound	Carbon black	1333-86-4		0.209	mg	4995	2613
Encapsulation	Other Organic Materials	41.843	mg	supplier	mold compound	Bismuth compound	7440-69-9		0.167	mg	3991	2088
				supplier	mold compound	Bismuth compound	7440-69-9		0.167	mg	3991	2088