



## 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*


Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2016-07-08
<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 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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
L9177ATR	CA91*UN66CA1	A	ZY1A	2016-07-08
Amount		UoM	Unit type	ST ECOPACK Grade
260.00		mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	10x10x1	64	gull wing	
Comment	Package: TQFP 64 10x10x1.0 1.0 ExPad Down			

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
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	CA91*UN66CA1					
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	18.527	mg	supplier	die	Silicon (Si)	7440-21-3		17.388	mg	938522	66877
				supplier	metallization	Aluminium (Al)	7429-90-5		0.153	mg	8258	588
				supplier	metallization	Tungsten (W)	7440-33-7		0.243	mg	13116	935
				supplier	Passivation	Silicon Nitride	12033-89-5		0.037	mg	1997	142
				supplier	Passivation	Silicon Oxide	7631-86-9		0.359	mg	19377	1381
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.013	mg	702	50
				supplier	back side metallization	Gold (Au)	7440-57-5		0.035	mg	1889	135
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.119	mg	6423	458
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.180	mg	9716	692
Leadframe	Copper and its alloy	99.338	mg	supplier	alloy	Copper (Cu)	7440-50-8		95.098	mg	957317	365762
				supplier	alloy	Iron (Fe)	7439-89-6		2.342	mg	23576	9008
				supplier	alloy	Phosphorous (P)	12185-10-3		0.029	mg	292	112
				supplier	alloy	Zinc (Zn)	7440-66-6		0.117	mg	1178	450
				supplier	metallization	Silver (Ag)	7440-22-4		1.752	mg	17637	6738
				supplier	glue	Silver(Ag)	7440-22-4		1.829	mg	664849	7035
Die attach	Other organic materials	2.751	mg	supplier	glue	2,2'-(Methylenebis(phenyleneoxymethylene))	39817-09-9		0.151	mg	54889	581
				supplier	glue	Dihydro-3-(tetrapropenyl)-2,5-furandione	26544-38-7		0.151	mg	54889	581
				supplier	glue	Epoxy resin	25068-38-6		0.151	mg	54889	581
				supplier	glue	Dodecylolxirane	3234-28-4		0.151	mg	54889	581
				supplier	glue	Hexahydro-5-methyl-1,3-isobenzofurandione	19438-60-9		0.151	mg	54889	581
				supplier	glue	2,2'-(1,4-Butanedylbis(oxymethylene))bis[oxirane]	2425-79-8		0.152	mg	55253	585
				supplier	glue	Copper monoxide	1317-38-0		0.015	mg	5453	58
				supplier	bonding wire	Copper (Cu)	7440-50-8		1.500	mg	541712	5769
				supplier	bonding wire	Palladium (Pd)	7440-41-7		0.032	mg	11556	123
Encapsulation	Other Organic Materials	133.139	mg	supplier	bonding wire	Gold (Au)	7440-57-5		1.237	mg	446732	4758
				supplier	mold compound	Epoxy Resin	25068-38-6		9.320	mg	70002	35846
				supplier	mold compound	Silica fused (SiO2) A	60676-86-0		95.859	mg	719992	368688
				supplier	mold compound	Silica fused (SiO2) B	7631-86-9		23.965	mg	180000	92173
				supplier	mold compound	Phenol Resin	205830-20-2		3.329	mg	25004	12804
Connection coating	Solder	3.476	mg	supplier	mold compound	Carbon Black	1333-86-4		0.666	mg	5002	2562
				supplier	solder alloy	Tin (Sn)	7440-31-5		3.476	mg	1000000	13369