



## 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>	2013-10-16
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	Refer to "Supplier Comment" section
<b>Contact Phone *</b>	Refer to "Supplier Comment" section	<b>Contact Email *</b>	Refer to "Supplier Comment" section
<b>Authorized Representative *</b>	Laurent Tosi	<b>Representative Title</b>	MMS MD CHAMPION
<b>Representative Phone *</b>	(+33) 442 685 795	<b>Representative Email *</b>	<a href="mailto:laurent.tosi@st.com">laurent.tosi@st.com</a>
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/online_tech_support.html">http://www.st.com/web/en/support/online_tech_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
-	CGZW*2SD31UA	A	Calamba	2013-10-15
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	
Copper Alloy	NiPdAu	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	2 x 3 x 0.55	8	No lead	
Comment	UFDFPN 2x3x0.6			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	<b>true</b>
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList :REACH-20th June 2013				
Query				Response
The product does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				<b>true</b>
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	CGZW*2SD31UA					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	1.38	mg	supplier	die	Silicon (Si)	7440-21-3		1.30	mg	942712.00	81250.00
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.01	mg	5076.00	438.00
die (s)				supplier	metallization	Copper (Cu)	7440-50-8		0.01	mg	5076.00	438.00
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.00	mg	725.00	63.00
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.00	mg	725.00	63.00
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.01	mg	3626.00	313.00
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.06	mg	42059.00	3625.00
Lead-frame	Other inorganic materials	2.99	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.92	mg	974500.00	182353.00
Lead-frame				supplier	alloy	Iron (Fe)	7439-89-6		0.07	mg	23460.00	4390.00
Lead-frame				supplier	alloy	Zinc (Zn)	7440-66-6		0.00	mg	1200.00	225.00
Lead-frame				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.00	mg	840.00	157.00
Lead-frame Coating	Other inorganic materials	0.01	mg	supplier	coating	Nickel (Ni)	7440-02-0		0.01	mg	916800.00	748.00
Lead-frame Coating				supplier	coating	Palladium (Pd)	7440-05-3		0.00	mg	58700.00	48.00
Lead-frame Coating				supplier	coating	Gold (Au)	7440-57-5		0.00	mg	24500.00	20.00
Die Attach	Other inorganic materials	1.66	mg	supplier	glue or soft solder	Silver (Ag)	7440-22-4		1.45	mg	875000.00	90804.00
Die Attach				supplier	glue or soft solder	polymer	28630-26-4		0.13	mg	80000.00	8302.00
Die Attach				supplier	glue or soft solder	aniline	67784-74-1		0.02	mg	10000.00	1038.00
Die Attach				supplier	glue or soft solder	epoxy resin	Proprietary		0.05	mg	30000.00	3113.00
Die Attach				supplier	glue or soft solder	Epoxy resin molecular weight <= 700	Proprietary		0.01	mg	5000.00	519.00
Wires	Other inorganic materials	0.04	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.04	mg	1000000.00	2258.00
Encapsulation	Other inorganic materials	9.92	mg	supplier	Moulding Compound	vitrous silica	60676-86-0		8.52	mg	859537.00	532750.00
Encapsulation				supplier	Moulding Compound	Phenol resin	na		0.33	mg	33444.00	20729.00
Encapsulation				supplier	Moulding Compound	epoxy resin	na		0.38	mg	38221.00	23690.00
Encapsulation				supplier	Moulding Compound	carbon black	1333-86-4		0.02	mg	1911.00	1185.00
Encapsulation				supplier	Moulding Compound	2,2'-((3,3',5,5'-tetramethyl-1,1'-biphenyl)-4,4'	85954-11-6		0.19	mg	19111.00	11845.00
Encapsulation				supplier	Moulding Compound	Metal hydroxide	na		0.47	mg	47777.00	29613.00
Finishing	Other inorganic materials	0.00	mg	supplier	connections coating	Nickel (Ni)	7440-02-0		0.00	mg	916800.00	7.00
Finishing				supplier	connections coating	Palladium (Pd)	7440-05-3		0.00	mg	58700.00	0.00