



## 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>	2014-09-02
<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

**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
M24512-DRMF3TG/K	CGBM*24121KN	A	P1C7	2014-09-02
Amount		UoM	Unit type	ST ECOPACK Grade
22.00		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	Nicel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	2x3x0.8	8	flat	
Comment	UFDFPN 2x3x0.8 8L 0.5MM PITCH			

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-16th December 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	CGBM*24121KN					
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	1.745	mg	supplier	die	Silicon (Si)	7440-21-3		1.680	mg	962751	76364
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.006	mg	3438	273
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	573	45
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	573	45
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.004	mg	2292	182
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.053	mg	30372	2409
Lead-frame	Other inorganic materials	3.272	mg	supplier	alloy	Copper (Cu)	7440-50-8		3.174	mg	970057	144288
Lead-frame				supplier	alloy	Iron (Fe)	7439-89-6		0.076	mg	23353	3474
Lead-frame				supplier	alloy	Zinc (Zn)	7440-66-6		0.004	mg	1195	178
Lead-frame				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.003	mg	836	124
Lead-frame				supplier	coating	Nickel (Ni)	7440-02-0		0.014	mg	4180	622
Lead-frame				supplier	coating	Palladium (Pd)	7440-05-3		0.001	mg	268	40
Lead-frame				supplier	coating	Gold (Au)	7440-57-5		0.000	mg	112	17
Die Attach	Other inorganic materials	0.292	mg	supplier	glue or soft solder	epoxy resin	25068-38-6		0.029	mg	100000	1328
Die Attach				supplier	glue or soft solder	Cycloaliphatic Epoxy Resin	244772-00-7		0.029	mg	100000	1328
Die Attach				supplier	glue or soft solder	Phenol resin	9003-35-4		0.029	mg	100000	1328
Die Attach				supplier	glue or soft solder	amorphous silica	7631-86-9		0.205	mg	700000	9298
Wires	Other inorganic materials	0.036	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.036	mg	1000000	1642
Encapsulation	Other inorganic materials	16.654	mg	supplier	Moulding Compound	silica vitreous	60676-86-0		14.572	mg	874947	662341
Encapsulation				supplier	Moulding Compound	Phenolic resin	Proprietary		0.792	mg	47541	35989
Encapsulation				supplier	Moulding Compound	Biphenyl epoxy resin	85954-11-6		0.620	mg	37206	28165
Encapsulation				supplier	Moulding Compound	carbon black	1333-86-4		0.034	mg	2067	1565
Encapsulation				supplier	Moulding Compound	Zinc hydroxide	20427-58-1		0.017	mg	1033	782
Encapsulation				supplier	Moulding Compound	Biphenyl epoxy resin	85954-11-6		0.620	mg	37206	28165
Finishing	Other inorganic materials	0.000	mg	supplier	connections coating	Nickel (Ni)	7440-02-0		0.000	mg	916800	6
Finishing				supplier	connections coating	Palladium (Pd)	7440-05-3		0.000	mg	58700	0
Finishing				supplier	connections coating	Gold (Au)	7440-57-5		0.000	mg	24500	0