



# Materials Declaration Form

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

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2017-09-22
<b>Company Unique ID</b>	NL 008751171B01		
<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>	Floriana SAN BIAGIO	<b>Representative Title</b>	AMG Material Declaration 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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<b>Legal Statement</b>	<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
	C53N*MV1UBFA	A	CA2A	2017-09-22
Amount	UoM	Unit type	ST ECOPACK Grade	
19	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			

Manufacturing information			
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	
3	260	3	
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment
Not Applicable	Nickel/Gold (Ni/Au), electrolytic	Copper Alloy	



Package Designator	Size	Nbr of instances	Shape	
LGA	3x3x1	16	flat	
Comment	Package: 3N LLGA 3X3X1.0 16L - FOR SENSOR; MDF valid for LIS3DETR			

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	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Exemption id.	Description
7c-1	7c-1-Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a

QueryList : REACH- 7th July 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	CS3N*MV1UBFA		Material	Material	Material	Material				
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Dies	M-011 Other inorganic materials	3.216	mg	supplier	die	Silicon (Si)	7440-21-3		2.980	mg	926617	156842				
				supplier	metallisation	Aluminium (Al)	7429-90-5		0.006	mg	1866	316				
				supplier	metallisation	Copper (Cu)	7440-50-8		0.016	mg	4975	842				
				supplier	metallisation	Tantalum (Ta)	7440-25-7		0.003	mg	933	158				
				supplier	metallisation	Titanium (Ti)	7440-32-6		0.002	mg	622	105				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.006	mg	1866	316				
				supplier	passivation	Silicon Oxide	7631-86-9		0.033	mg	10261	1737				
					JIG - R	die glass coating	Lead-Borate Glass	65997-18-4	7c-i-Electrical and electro	0.170	mg	52861	8947			
				supplier	core material	Fiber glass	65997-17-3		0.762	mg	150385	40105				
				supplier	core material	Bismaleimide (B)	105391-33-1		0.256	mg	50523	13474				
substrate	M-015 Other organic materials	5.067	mg	supplier	core material	Triazine (T)	25722-66-1		0.256	mg	50523	13474				
				supplier	core material	Thermosetting resin	54208-63-8		0.428	mg	84468	22526				
				supplier	core material	metal hydroxide	21645-51-2		0.017	mg	3355	895				
				supplier	core material	Calcium sulfate	7778-18-9		0.009	mg	1776	474				
				supplier	core material	Zinc hydroxide	20427-58-1		0.005	mg	987	263				
				supplier	Solder mask	Barium sulfate	7727-43-7		0.044	mg	8684	2316				
				supplier	Solder mask	Acrylic resin	9003-01-4		0.068	mg	13420	3579				
				supplier	Solder mask	Epoxy resin	29690-82-2		0.053	mg	10460	2789				
				supplier	Solder mask	Biphenyl epoxy resin	85954-11-6		0.033	mg	6513	1737				
				supplier	Solder mask	Talc containing no asbestos fibers	14807-96-6		0.026	mg	5131	1368				
				supplier	Solder mask	Methoxymethylethoxy propanol	34590-94-8		0.007	mg	1381	368				
				supplier	Solder mask	Amorphous silica	7631-86-9		0.005	mg	987	263				
				supplier	Solder mask	3-methyl-methoxy-butyl	103429-90-9		0.003	mg	592	158				
				supplier	Solder mask	Silica Cristobalite	14464-46-1		0.002	mg	395	105				
				supplier	Solder mask	Morpholine derivative	Proprietary		0.001	mg	197	53				
				supplier	metallisation	Copper (Cu)	7440-50-8		2.957	mg	583580	155632				
				supplier	metallisation	Nickel (Ni)	7440-02-0		0.120	mg	23683	6316				
				supplier	metallisation	Gold (Au)	7440-57-5		0.015	mg	2960	789				
				Die attach	M-015 Other organic materials	0.107	mg	supplier	tape	epoxy resin	25068-38-6		0.068	mg	635514	3579
								supplier	tape	Polypropylene	9003-07-0		0.002	mg	18692	105
supplier	tape	epoxy resin	29690-82-2						0.011	mg	102804	579				
supplier	tape	propenoate polymer	538311-13-6						0.021	mg	196262	1105				
supplier	tape	Diphenol Propane Diglycidyl Ether	1675-54-3						0.005	mg	46729	263				
Die attach 2	M-015 Other organic materials	0.070	mg	supplier	tape	Acrylic resin	9003-01-4		0.021	mg	300000	1105				
				supplier	tape	epoxy resin	Proprietary		0.021	mg	300000	1105				
				supplier	tape	amorphous silica	7631-86-9		0.021	mg	300000	1105				
				supplier	tape	Polyester resin	Proprietary		0.007	mg	100000	368				
				supplier	wire	Gold (Au)	7440-57-5		0.143	mg	993056	7526				
Bonding wire	M-008 Precious metals	0.144	mg	supplier	wire	Palladium (Pd)	7440-05-3		0.001	mg	6944	53				
				supplier	mold compound	Silica, vitreous	60676-86-0		9.408	mg	904963	495158				
				supplier	mold compound	Epoxyde Bisphenol A Resin	25068-38-6		0.260	mg	25010	13684				
encapsulation	M-015 Other organic materials	10.396	mg	supplier	mold compound	Epoxy Resin	29690-82-2		0.416	mg	40015	21895				
				supplier	mold compound	Phenol Resin	25068-38-6		0.260	mg	25010	13684				
				supplier	mold compound	Carbon black	1333-86-4		0.052	mg	5002	2737				