



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2015-06-05</b>
<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>	<b>Flavio Di Francesco</b>	<b>Representative Title</b>	<b>AMS Materials Declaration Champion</b>
<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/internet/com/support/online_tech_support.jsp">http://www.st.com/internet/com/support/online_tech_support.jsp</a>		

**Uncertainty Statement**

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Legal Statement		
<b>Supplier Acceptance *</b>	<b>true</b>	<b>Legal Declaration *</b>
		<b>Standard</b>

**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
	L53G*MV37EDE	A	MA1A	2015-06-05
Amount	UoM	Unit type	ST ECOPACK Grade	
50.0	mg	Each	ECOPACK* 2	

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 ; if coating is used or other bulk termination : add in comments	Nickel/Gold (Ni/Au), electrolytic	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
LGA	4 - 4 - 1.5	16	No lead	
Comment	Package: 3G LLGA 4X4X1.5 16L - FOR SENSOR; MD valid for LIS344ALH - LIS344ALHTR			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
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)	true
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
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 glass or ceramic matrix compound

QueryList : REACH-17th December 2014				
Query				Response
The product 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
Diboron trioxide	1000 ppm	0.059		1180

Material Composition Declaration						Mfr Item Name	L53G*MV37EDE					
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	18.332	mg	supplier	die	Silicon (Si)	7440-21-3		16.87	mg	920249	337400
die (s)				supplier	metallisation	Aluminium (Al)	7429-90-5		0.043	mg	2346	860
die (s)				supplier	metallisation	Copper (Cu)	7440-50-8		0.041	mg	2237	820
die (s)				supplier	metallisation	Titanium (Ti)	7440-32-6		0.001	mg	55	20
die (s)				supplier	metallisation	Tungsten (W)	7440-33-7		0.001	mg	55	20
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.021	mg	1146	420
die (s)				supplier	passivation	Silicon Oxide	7631-86-9		0.512	mg	27929	10240
die (s)				supplier	passivation	Lead Oxide	1317-36-8	7c-H-Electrical and e	0.54	mg	29457	10800
die (s)				supplier	passivation	Boron Trioxide	1303-86-2		0.059	mg	3218	1180
die (s)				supplier	passivation	Silicon Oxide	7631-86-9		0.084	mg	4582	1680
die (s)				supplier	passivation	Aluminium oxide	1344-28-1		0.084	mg	4582	1680
die (s)				supplier	passivation	Butyl Carbitol Acetate	124-17-4		0.042	mg	2291	840
die (s)				supplier	passivation	Ethyl cellulose	9004-57-3		0.017	mg	927	340
die (s)				supplier	passivation	Terpineol	8000-41-7		0.017	mg	927	340
substrate	Other Organic Materials	8.947	mg	supplier	core material	Bismaleimide (B)	105391-33-1		0.944	mg	105510	18880
substrate				supplier	core material	Triazine (T)	25722-66-1		0.944	mg	105510	18880
substrate				supplier	core material	Fiber glass	65997-17-3		2.816	mg	314742	56320
substrate				supplier	core material	metal hydroxide	21645-51-2		0.064	mg	7153	1280
substrate				supplier	core material	Zinc hydroxide	20427-58-1		0.019	mg	2124	380
substrate				supplier	core material	Thermosetting resin	54208-63-8		1.581	mg	176707	31620
substrate				supplier	core material	Calcium sulfate	7778-18-9		0.032	mg	3577	640
substrate				supplier	Solder mask	Barium sulfate	7727-43-7		0.172	mg	19224	3440
substrate				supplier	Solder mask	(2-methoxymethylethoxy)propanol	34590-94-8		0.029	mg	3241	580
substrate				supplier	Solder mask	Talc containing no asbestiform fibers	14807-96-6		0.096	mg	10730	1920
substrate				supplier	Solder mask	Quartz	14808-60-7		0.096	mg	10730	1920
substrate				supplier	Solder mask	Acrylic resin	9003-01-4		0.395	mg	44149	7900
substrate				supplier	Solder mask	Epoxy resin	29690-82-2		0.13	mg	14530	2600
substrate				supplier	Solder mask	aromatic hydrocarbon	Proprietary		0.038	mg	4247	760
substrate				supplier	metallisation	Copper (Cu)	7440-50-8		1.495	mg	167095	29900
substrate				supplier	metallisation	Nickel (Ni)	7440-02-0		0.081	mg	9053	1620
substrate				supplier	metallisation	Gold (Au)	7440-57-5		0.015	mg	1677	300
Die attach	Other inorganic materials	1.5	mg	supplier	glue or tape	polyolefin	9003-07-0		0.474	mg	316000	9480
Die attach				supplier	glue or tape	epoxy resin	25068-38-6		0.951	mg	634000	19020
Die attach				supplier	glue or tape	Diphenol Propane Diglycidyl Ether	1675-54-3		0.075	mg	50000	1500
Bonding wire	Precious metals	0.216	mg	supplier	wire	Gold (Au)	7440-57-5		0.214	mg	990741	4280
Bonding wire				supplier	wire	Palladium (Pd)	7440-05-3		0.002	mg	9259	40
encapsulation	Other inorganic materials	21.005	mg	supplier	mold compound	Silica, vitreous	60676-86-0		18.38	mg	875030	367600
encapsulation				supplier	mold compound	Epoxy Resin	85954-11-6		0.84	mg	39990	16800
encapsulation				supplier	mold compound	Epoxy resin	Proprietary		0.84	mg	39990	16800
encapsulation				supplier	mold compound	Phenol Resin	26834-02-6		0.84	mg	39990	16800
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.105	mg	4999	2100