



Materials Declaration Form

IPC	1752	Version	2
Form Type *	Distribute		
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D

* : Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2020-10-09
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier comment section	Contact Title	Refer to Supplier comment section
Contact Phone *	Refer to Supplier comment section	Contact Email *	Refer to Supplier comment section
Authorized Representative *	Antonella Lanzafame	Representative Title	AMS Material Declaration Champion
Representative Phone *	Refer to Supplier Comment section	Representative Email *	Refer to Supplier Comment section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

Uncertainty Statement

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Legal Statement		
Supplier Acceptance *	true	Legal Declaration *
		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
LIS344ALH	L53G*MV37EDE	C	MA1A	2020-10-09
Amount	UoM	Unit type	ST ECOPACK Grade	
50.0	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	Tin (Sn), immersion	Copper Alloy	0	



Package Designator	Size	Nbr of instances	Shape	
lga	4 x 4	16	flat	
Comment	3G LLGA 4X4X1.5 16L - FOR SENSOR			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 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-I	7c-I-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 : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirement without any exemptions	FALSE
2 - Product(s) meets EU ELV requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
7c-I	Electrical and electronic components which contain lead in a glass or ceramic, in a glass or ceramic matrix compound, in a glass-ceramic material, or in a glass-ceramic matrix compound. This exemption does not cover the use of lead in: — glass in bulbs and glaze of spark plugs, — dielectric ceramic materials of components listed under 10(b), 10(c) and 10(d)

QueryList : California Prop65 list, dated 3rd January 2020			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.090	alloy	1800
Lead	0.348	glass	6958

QueryList : REACH-16th January 2020				
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
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Homogeneous Material above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Homogeneous Material (mg)	Application - Homogeneous Material	ppm in Homogeneous Material

Material Composition Declaration						Mfr Item Name	L53G*MV37EDE		50.0000		4893824.0	1000000.0				
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	13.286	mg	supplier	die	Silicon(Si)	7440-21-3		12.560	mg	945356	251200				
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.023	mg	1731	460				
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.003	mg	226	60				
				supplier	metallisation	Tungsten(W)	7440-33-7		0.002	mg	151	40				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.010	mg	753	200				
				supplier	passivation	Silicon Oxide	7631-86-9		0.089	mg	6699	1780				
					JIG-R & California 65	glass	Lead-Borate Glass	65997-18-4	7c-I-Electrical and electr	0.577	mg	43429	11540			
				supplier	polymer coating	polyimide	proprietary			0.022	mg	1656	440			
				Substrate	M-015 Other organic materials	9.008	mg	supplier	laminate	Fiber glass	65997-17-3		1.314	mg	98901	26280
								supplier	laminate	Bismaleimide polymer	105391-33-1		0.440	mg	33118	8800
supplier	laminate	Triazine (T)	25722-66-1						0.440	mg	33118	8800				
supplier	laminate	Thermosetting resin	54208-63-8						0.737	mg	55472	14740				
supplier	laminate	Aluminium hydroxide	21645-51-2						0.030	mg	2258	600				
supplier	laminate	Calcium sulfate	7778-18-9						0.015	mg	1129	300				
supplier	laminate	Zinc hydroxide	20427-58-1						0.009	mg	999	180				
supplier	laminate	Barium sulfate	7727-43-7						0.688	mg	76377	13760				
supplier	laminate	Bisphenol F type epoxy resin	9003-36-5						0.665	mg	73823	13300				
supplier	laminate	polymerized Biphenyl resin	85954-11-6						0.270	mg	29973	5400				
supplier	laminate	Talc containing no asbestiform fibers	14807-96-6						0.166	mg	18428	3320				
supplier	laminate	Methoxymethylethoxy propanol	34590-94-8						0.164	mg	18206	3280				
supplier	laminate	Amorphous silica	7631-86-9						0.125	mg	13877	2500				
	M-004 Copper and its alloys	supplier	metallisation					Copper(Cu)	7440-50-8	3.840	mg	426288	76800			
	M-006 Nickel and its alloys	supplier	metallisation					Nickel(Ni)	7440-02-0	0.090	mg	9991	1800			
Die attach	M-015 Other organic materials	0.313	mg					supplier	metallisation	Gold(Au)	7440-57-5		0.015	mg	1665	300
								supplier	tape	Epoxy resin	25068-38-6		0.197	mg	629393	3940
								supplier	tape	Polypropylene	9003-07-0		0.006	mg	19169	120
				supplier	tape	epoxy resin	29690-82-2		0.031	mg	99042	620				
				supplier	tape	Propenoate polymer	538311-13-6		0.063	mg	201278	1260				
				supplier	tape	Bisphenol A diglycidyl ether	1675-54-3		0.016	mg	51118	320				
Bonding wire	M-008 Precious metals	0.112	mg	supplier	wire	Gold(Au)	7440-57-5		0.111	mg	991071	2220				
				supplier	wire	Palladium(Pd)	7440-05-3		0.001	mg	8929	20				
encapsulation	M-015 Other organic materials	27.281	mg	supplier	mold compound	Silica vitreous	60676-86-0		23.612	mg	865511	472240				
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		1.091	mg	39991	21820				
				supplier	mold compound	Phenol resin	26834-02-6		1.091	mg	39991	21820				
				supplier	mold compound	Epoxyde bisphenol A resin	25068-38-6		0.818	mg	29984	16360				
				supplier	mold compound	Aluminium hydroxide	21645-51-2		0.546	mg	20014	10920				
				supplier	mold compound	Carbon black	1333-86-4		0.123	mg	4509	2460				