



## 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>

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2020-04-08
<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>	Antonella Lanzafame	<b>Representative Title</b>	AMS 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>		

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Legal Statement	
<b>Supplier Acceptance *</b>	true
<b>Legal Declaration *</b>	Standard
<b>Legal Statement</b>	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
LSM9DS1TR	2ZCC*MV3GBBA	B	MA1A	2020-04-08
	Amount	UoM	Unit type	ST ECOPACK Grade
	22.0	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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy	0	



Package Designator	Size	Nbr of instances	Shape	
lga	3.513	24	flat	
Comment	TFLGA 3.5X3X1.24L			

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. piezoelectric devices, or in a glass or ceramic matrix compound

QueryList : ELV directive : 2000/53/EC amended 2020/363_ March 2020	
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
10a	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	0.008	alloy	364
Lead-Borate Glass	0.389	glass	17682

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

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update				
Query				Response
The Product does contain at least one of the substances listed in Chemical Control Act				NO
Substance present in device Homogeneous Material				
Substance	Homogeneous Material impacted	Concentration in the material(%)	Application Purpose	

Material Composition Declaration					Mfr Item Name	22CC*MV3GBBA		22.0000		999999.0	999999.0					
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	7.890	mg	supplier	die	Silicon(Si)	7440-21-3		6.968	mg	883143	316727				
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.044	mg	5577	2000				
				supplier	metallisation	Copper(Cu)	7440-50-8		0.039	mg	4943	1773				
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.009	mg	1141	409				
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.013	mg	1648	591				
				supplier	metallisation	Tungsten(W)	7440-33-7		0.004	mg	507	182				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.025	mg	3169	1136				
				supplier	passivation	Silicon Oxide	7631-86-9		0.399	mg	50570	18136				
				JGC-R & California 65	glass	Lead-Borate Glass	65997-18-4	7c-I-Electrical and elect	0.389	mg	49303	17682				
				supplier	laminare	Fiber glass	65997-17-3		0.519	mg	147737	23591				
				supplier	laminare	Epoxy resin	61788-97-4		0.110	mg	31312	5000				
				supplier	laminare	Triazine (T)	25722-66-1		0.138	mg	39283	6273				
				supplier	laminare	Epoxy resin	223769-10-6		0.058	mg	16510	2636				
				supplier	laminare	Calcium carbonate	471-34-1		0.231	mg	65756	10500				
				supplier	laminare	Amorphous silica	7631-86-9		0.128	mg	36436	5818				
				supplier	laminare	Metal hydroxide	proprietary		0.017	mg	4839	773				
				supplier	laminare	Barium sulfate	7727-43-7		0.259	mg	73726	11773				
				supplier	laminare	Bisphenol F type epoxy resin	9003-36-5		0.251	mg	71449	11409				
				supplier	laminare	polymerized Biphenyl resin	85954-11-6		0.102	mg	29035	4636				
				supplier	laminare	Talc containing no asbestiform fibers	14807-96-6		0.063	mg	17933	2864				
				supplier	laminare	Methoxymethylethoxy propanol	34590-94-8		0.062	mg	17649	2818				
				M-004 Copper and its alloys	supplier	metallisation	Copper(Cu)	7440-50-8	1.558	mg	443406	70818				
				M-006 Nickel and its alloys	supplier	metallisation	Nickel(Ni)	7440-02-0	0.008	mg	2277	364				
				supplier	metallisation	Gold(Au)	7440-57-5	0.009	mg	2562	409					
				Die attach	M-015 Other organic materials	0.243	mg	supplier	tape	Epoxy resin	25068-38-6		0.153	mg	629630	6955
								supplier	tape	Polypropylene	9003-07-0		0.005	mg	20576	227
								supplier	tape	epoxy resin	29690-82-2		0.024	mg	98765	1091
								supplier	tape	Propenoate polymer	538311-13-6		0.049	mg	201646	2227
								supplier	tape	Bisphenol A diglycidyl ether	1675-54-3		0.012	mg	48383	545
				Die attach 2		0.290	mg	supplier	tape	Amorphous silica	7631-86-9		0.121	mg	417241	5500
supplier	tape	Polyethylen terephthalate	25038-59-9						0.073	mg	251724	3318				
supplier	tape	Acrylic resin	9003-01-4						0.048	mg	165517	2182				
supplier	tape	Epoxyde bisphenol A resin	25068-38-6						0.048	mg	165517	2182				
supplier	wire	Gold(Au)	7440-57-5						0.642	mg	990741	29182				
Bonding wire	M-008 Precious metals	0.648	mg	supplier	wire	Palladium(Pd)	7440-05-3		0.006	mg	9259	273				
encapsulation	M-015 Other organic materials	9.416	mg	supplier	mold compound	Silica vitreous	60676-86-0		8.150	mg	865548	370455				
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.377	mg	40038	17136				
				supplier	mold compound	Phenol resin	26834-02-6		0.377	mg	40038	17136				
				supplier	mold compound	Epoxyde bisphenol A resin	25068-38-6		0.282	mg	29949	12818				
				supplier	mold compound	Aluminium hydroxide	21645-51-2		0.188	mg	19966	8545				
				supplier	mold compound	Carbon black	1333-86-4		0.042	mg	4460	1909				