



## Materials Declaration Form

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

<b>Supplier Information</b>			
Company Name *	STMicroelectronics	Response Date *	2020-02-25
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 *	Floriana SAN BIAGIO	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 : <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>			
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
	22AC*MV9RABB	B	MA1A	2020-02-25
Amount	UoM	Unit type	ST ECOPACK Grade	
6.6	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/Gold (Ni/Au), electrolytic	Copper Alloy	0	



Package Designator	Size	Nbr of instances	Shape	
LGA	2 x 2	10	flat	
Comment	B054 HLGA 2X2X.8 10L EXP. SILIC .91SQ; MDF is valid for LPS22CHTR-LPS22HHQTR-LPS22HHTR-LPS22HH-LPS22HHQ			

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	TRUE
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)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirement without any exemptions	TRUE
2 - Product(s) meets EU ELV requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

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			FALSE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.046	substrate	6980
Bisphenol A	0.001	substrate	152

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	22AC/MV9RABB		6.5012		4999997.0	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	0.417	mg	supplier	die	Silicon(Si)	7440-21-3		0.364	mg	872902	55235				
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.005	mg	11990	759				
				supplier	metallisation	Copper(Cu)	7440-50-8		0.018	mg	43165	2731				
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.004	mg	9592	607				
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.002	mg	4796	303				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.006	mg	14388	910				
				supplier	passivation	Silicon Oxide	7631-86-9		0.018	mg	43165	2731				
				Substrate	M-015 Other organic materials	1.601	mg	supplier	laminare	Fiber glass	65997-17-3		0.209	mg	130543	31715
				supplier	laminare	Bisphenol F type epoxy resin	9003-36-5		0.208	mg	129919	31563				
				supplier	laminare	Bismaleimide (B)	105391-33-1		0.071	mg	44347	10774				
supplier	laminare	Triazine (T)	25722-66-1		0.070	mg	43723	10622								
supplier	laminare	Aluminium hydroxide	21645-51-2		0.005	mg	3123	759								
supplier	laminare	Zinc hydroxide	20427-58-1		0.001	mg	625	152								
supplier	laminare	Calcium sulfate	7778-18-9		0.002	mg	1249	303								
supplier	SVHC	laminare	BPA	80-05-7		0.001	mg	625	152							
supplier	laminare	Barium sulfate	7727-43-7		0.094	mg	58713	14264								
supplier	laminare	polymerized Biphenyl resin	85954-11-6		0.037	mg	23111	5615								
supplier	laminare	Talc containing no asbestosform fibers	14807-96-6		0.023	mg	14366	3490								
supplier	laminare	Methoxymethylethoxy propanol	34590-94-8		0.022	mg	13741	3338								
supplier	laminare	Amorphous silica	7631-86-9		0.017	mg	10618	2580								
supplier	M-004 Copper and its alloys			supplier	metallisation	Copper(Cu)	7440-50-8		0.787	mg	491568	119423				
supplier	M-006 Nickel and its alloys			supplier	metallisation	Nickel(Ni)	7440-02-0		0.046	mg	28732	6980				
supplier				supplier	metallisation	Gold(Au)	7440-57-5		0.008	mg	4997	1214				
Die attach	M-015 Other organic materials	0.041	mg	supplier	tape	Epoxy resin	25068-38-6		0.026	mg	634146	3945				
				supplier	tape	Polypropylene	9003-07-0		0.001	mg	24390	152				
				supplier	tape	epoxy resin	29690-82-2		0.004	mg	97561	607				
				supplier	tape	Propenoate polymer	538311-13-6		0.008	mg	195122	1214				
				supplier	tape	Bisphenol A diglycidyl ether	1675-54-3		0.002	mg	48780	303				
Bonding wire	M-008 Precious metals	0.031	mg	supplier	wire	Gold(Au)	7440-57-5		0.031	mg	1000000	4704				
encapsulation	M-015 Other organic materials	4.500	mg	supplier	mold compound	Silica vitreous	60676-86-0		3.895	mg	865556	591047				
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.180	mg	40000	27314				
				supplier	mold compound	Phenol resin	26834-02-6		0.180	mg	40000	27314				
				supplier	mold compound	Epoxyde bisphenol A resin	25068-38-6		0.135	mg	30000	20486				
				supplier	mold compound	Aluminium hydroxide	21645-51-2		0.090	mg	20000	13657				
				supplier	mold compound	Carbon black	1333-86-4		0.020	mg	4444	3035				