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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 ***	2020-02-25
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 : 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 omprehensive 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.		

Signature Not Verified

Digitally signed by Floriana San Biagio
Date: 2020.02.25 14:40:46 +01:00

Product				
Mfr Item Number	**Mfr Item Name**	**Version**	**Mfr Site**	**Date**
	22AA*MV3NADD	B	MA1A	2020-02-25
	Amount	**UoM**	**Unit type**	**ST ECOPACK Grade**
	10.2	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	2.5 x 2.5	10	flat	
Comment	A0T8 HLGA 2.5X2.5.X0.8MAX 10 LEAD; MDF is valid for LPS25HBTR			

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**
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	
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	0.167	substrate	16373
Lead	0.056	die	5441
Lead-Borate Glass	0.092	die	9020

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**	**22AA*MV3NADD**		10.2020		4999998.0	1000192.0
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	2.485	mg	supplier	die	Silicon(Si)	7440-21-3		2.283	mg	918712	223824
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.010	mg	4024	980
				supplier	metallisation	Copper(Cu)	7440-50-8		0.011	mg	4427	1078
				supplier	metallisation	Gold(Au)	7440-57-5		0.037	mg	14889	3627
				supplier	metallisation	Palladium(Pd)	7440-05-3		0.001	mg	402	98
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.002	mg	805	196
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.004	mg	1610	392
				supplier	metallisation	Tungsten(W)	7440-33-7		0.003	mg	1207	294
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.012	mg	4829	1176
				supplier	passivation	Silicon Oxide	7631-86-9		0.030	mg	12072	2941
				JIG-R & California 65	glass	Lead-Borate Glass	65997-18-4	7c-I-Electrical and electr	0.092	mg	37022	9020
Substrate	M-015 Other organic materials	2.523	mg	supplier	laminate	Fiber glass	65997-17-3		0.327	mg	129608	32059
				supplier	laminate	Bisphenol F type epoxy resin	9003-36-5		0.314	mg	124455	30784
				supplier	laminate	Bismaleimide (B)	105391-33-1		0.110	mg	43599	10784
				supplier	laminate	Triazine (T)	25722-66-1		0.110	mg	43599	10784
				supplier	laminate	Aluminium hydroxide	21645-51-2		0.007	mg	2774	686
				supplier	laminate	Zinc hydroxide	20427-58-1		0.002	mg	793	196
				supplier	laminate	Calcium sulfate	7778-18-9		0.004	mg	1585	392
				SVHC	laminate	BPA	80-05-7		0.001	mg	396	98
				supplier	laminate	Barium sulfate	7727-43-7		0.137	mg	54300	13431
				supplier	laminate	polymerized Biphenyl resin	85954-11-6		0.054	mg	21403	5294
				supplier	laminate	Talc containing no asbestiform fibers	14807-96-6		0.033	mg	13080	3235
				supplier	laminate	Methoxymethylethoxy propanol	34590-94-8		0.033	mg	13080	3235
				supplier	laminate	Amorphous silica	7631-86-9		0.025	mg	9909	2451
	M-004 Copper and its alloys			supplier	metallisation	Copper(Cu)	7440-50-8		1.170	mg	463734	114706
	M-006 Nickel and its alloys			supplier	metallisation	Nickel(Ni)	7440-02-0		0.167	mg	66191	16373
				supplier	metallisation	Gold(Au)	7440-57-5		0.029	mg	11494	2843
Die attach	M-015 Other organic materials	0.059	mg	supplier	tape	Epoxy resin	25068-38-6		0.037	mg	627119	3627
				supplier	tape	Polypropylene	9003-07-0		0.001	mg	16949	98
				supplier	tape	epoxy resin	29690-82-2		0.006	mg	101695	588
				supplier	tape	Propenoate polymer	538311-13-6		0.012	mg	203390	1176
				supplier	tape	Bisphenol A diglycidyl ether	1675-54-3		0.003	mg	50847	294
Bonding wire	M-008 Precious metals	0.046	mg	supplier	wire	Gold(Au)	7440-57-5		0.046	mg	1000000	4510
encapsulation	M-015 Other organic materials	5.089	mg	supplier	mold compound	Silica vitreous	60676-86-0		4.403	mg	865199	431667
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.204	mg	40086	20000
				supplier	mold compound	Phenol resin	26834-02-6		0.204	mg	40086	20000
				supplier	mold compound	Epoxyde bisphenol A resin	25068-38-6		0.153	mg	30065	15000
				supplier	mold compound	Aluminium hydroxide	21645-51-2		0.102	mg	20043	10000
				supplier	mold compound	Carbon black	1333-86-4		0.023	mg	4520	2255