



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2020-09-11
Company Unique ID	NL 008751171B01		
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		

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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
	77AA*MV8TABD	A	P1C7	2020-09-11
	Amount	UoM	Unit type	ST ECOPACK Grade
	14.0	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	
NAC	Nickel/Gold (Ni/Au), electrolytic	Copper Alloy	0	



Package Designator	Size	Nbr of instances	Shape	
LGA	2.5 x 3	14	Flat	
Comment	A08N VFLGA2.5X3X.86 14L P.5 L.475X.25; MDF is valid for LSM6DSRTR			

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 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	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.	

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	0.102	substrate	7286	
Lead	0.192	die	13743	
Lead-Borate Glass	0.319	die	22786	

QueryList : REACH-25th June 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				false
Substance present in device Homogeneous Material				
Substance	Homogeneous Material impacted	Concentration in the material(%)	Application Purpose	

Material Composition Declaration					Mfr Item Name	77AA*MV8TABD	14.0570		5999999.0	1004786.0						
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	1.400	mg	supplier	die	Silicon(Si)	7440-21-3		0.909	mg	649286	64929				
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.019	mg	13571	1357				
				supplier	metallisation	Copper(Cu)	7440-50-8		0.023	mg	16429	1643				
				supplier	metallisation	Cobalt(Co)	7440-48-4		0.013	mg	9286	929				
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.005	mg	3571	357				
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.007	mg	5000	500				
				supplier	metallisation	Tungsten(W)	7440-33-7		0.003	mg	2143	214				
				supplier	metallisation	Zirconium(Zr)	7440-67-7		0.002	mg	1429	143				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.012	mg	8571	857				
				supplier	passivation	Silicon Oxide	7631-86-9		0.088	mg	62857	6286				
					JIG-R & California 65	glass	Lead-Borate Glass	65987-18-4	7c-I-Electrical and electr	0.319	mg	227857	22796			
				Substrate	M-015 Other organic materials	2.968	mg	supplier	laminare	Fiber glass	65997-17-3		0.455	mg	153302	32500
								supplier	laminare	Epoxy resin	61788-97-4		0.096	mg	32345	6857
								supplier	laminare	Triazine (T)	25722-66-1		0.121	mg	40768	8643
supplier	laminare	Epoxy resin	223769-10-6						0.051	mg	17183	3643				
supplier	laminare	Calcium carbonate	471-34-1						0.202	mg	68059	14429				
supplier	laminare	Amorphous silica	7631-86-9						0.071	mg	23922	5071				
supplier	laminare	Metal hydroxide	proprietary						0.015	mg	5054	1071				
supplier	laminare	Acrylic resin	9003-01-4						0.160	mg	53908	11429				
supplier	laminare	Barium sulfate	7727-43-7						0.068	mg	22911	4857				
supplier	laminare	epoxy resin	85954-11-6						0.059	mg	19879	4214				
supplier	laminare	Talc	14807-96-6						0.041	mg	13814	2929				
supplier	laminare	Aromatic hydrocarbon	64742-94-5						0.018	mg	6065	1286				
supplier	laminare	Methoxymethyl ethoxy propanol	34590-94-8						0.045	mg	15162	3214				
supplier	laminare	Acetate compound	112-15-2						0.045	mg	15162	3214				
supplier	laminare	DPMA	88917-22-0		0.009	mg	3032	643								
supplier	laminare	Diphenyl-trimethylbenzoyl phosphine oxide	75980-60-8		0.007	mg	2358	500								
	M-004 Copper and its alloys	supplier	metallisation	Copper(Cu)	7440-50-8		1.384	mg	466307	98857						
	M-006 Nickel and its alloys	supplier	metallisation	Nickel(Ni)	7440-02-0		0.102	mg	34367	7286						
supplier	metallisation	Gold(Au)	7440-57-5		0.019	mg	6402	1357								
Die attach	M-015 Other organic materials	0.201	mg	supplier	tape	Epoxy resin	25068-38-6		0.127	mg	631841	9071				
				supplier	tape	Polypropylene	9003-07-0		0.004	mg	19900	286				
				supplier	tape	epoxy resin	29690-82-2		0.020	mg	99502	1429				
				supplier	tape	Propenoate polymer	538311-13-6		0.040	mg	199005	2857				
				supplier	tape	Bisphenol A diglycidyl ether	1675-54-3		0.010	mg	49751	714				
Die attach 2	M-015 Other organic materials	0.168	mg	supplier	tape	Amorphous silica	7631-86-9		0.070	mg	416667	5000				
				supplier	tape	Polyethylen terephthalate	25038-59-9		0.042	mg	250000	3000				
				supplier	tape	Acrylic resin	9003-01-4		0.028	mg	166667	2000				
				supplier	tape	Epoxyde bisphenol A resin	25068-38-6		0.028	mg	166667	2000				
Bonding wire	M-008 Precious metals	0.066	mg	supplier	wire	Gold(Au)	7440-57-5		0.065	mg	984848	4643				
				supplier	wire	Palladium(Pd)	7440-05-3		0.001	mg	15152	71				
Encapsulation	M-015 Other organic materials	9.264	mg	supplier	mold compound	Silica vitreous	60676-86-0		8.383	mg	904901	598786				
				supplier	mold compound	Epoxyde bisphenol A resin	25068-38-6		0.232	mg	25043	16571				
				supplier	mold compound	Epoxy resin	proprietary		0.371	mg	40047	26500				
				supplier	mold compound	Phenol Resin	proprietary		0.232	mg	25043	16571				
				supplier	mold compound	Carbon black	1333-86-4		0.046	mg	4965	3286				