



## Materials Declaration Form

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

<b>Supplier Information</b>			
Company Name *	STMicroelectronics	Response Date *	2021-06-14
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 : <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
	N2AA*MY18ABA	B	997G	2021-06-14
	Amount	UoM	Unit type	ST ECOPACK Grade
	18.9	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy		
NAC	Nickel/Gold (Ni/Au), electrolytic	Copper Alloy	0	

Package Designator	Size	Nbr of instances	Shape
LGA	2.7 x 2.7	10	Flat
Comment	B08Q CERAMIC CCLGA 2.7X2.7X1.85 10L; MDF is valid for LPS27HHWTR		

QueryList : RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 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 2020/363_ March 2020	
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 19th March 2021			
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	0.626	ceramic base/metal cap	33223
Lead	0.000		0
Lead-Borate Glass	0.000		0
Lead Zirconate Titanate (PZT)	0.000		0
Antimony trioxide	0.000		0
Bisphenol A	0.000		0
Gallium Arsenide	0.000		0

QueryList : Chinese RoHS , references : SJT 11364 – 2014 and GBT 26572 – 2014				
Query				Response
1 - Product(s) requires marking for the presence of restricted substances and must be marked with an Environmental Protection Use Period under China's Measures for Administration of the control of pollution by Electronic Information Products				false
2 - Product(s) is eligible for marking with the e code under China's Measures for Administration of the control of pollution by Electronic Information Products				false
Hazardous substance				
Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Hexavalent Chromium (Cr VI)	PBB & PBDE
O	O	O	O	O

QueryList : REACH-19th January 2021				
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	Content in Homogeneous Material (mg)	Concentration in the material(%)	Application Purpose

Material Composition Declaration						Mfr Item Name	N2AA'MY18ABA		18,8695		8000001.0	1000986.0	
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	0.726	mg	supplier	die	Silicon(Si)	7440-21-3		0.664	mg	914601	35225	
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.006	mg	8264	318	
				supplier	metallisation	Copper(Cu)	7440-50-8		0.018	mg	24793	955	
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.004	mg	5510	212	
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.002	mg	2755	106	
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.006	mg	8264	318	
Ceramic Base	M-015 Other organic materials	7.105	mg	supplier	passivation	Silicon Oxide	7631-86-9		0.026	mg	35813	1379	
				supplier	laminate	Aluminum oxide	1344-28-1		5.847	mg	822942	310186	
				supplier	laminate	Silicon Dioxide	7631-86-9		0.355	mg	49965	18333	
				supplier	laminate	Calcium Oxide	135-78-8		0.043	mg	6052	2281	
				supplier	laminate	Magnesium Oxide	130948-4		0.036	mg	5067	1910	
				supplier	laminate	Titanium oxide	13463-67-7		0.071	mg	9993	3767	
	M-006 Nickel and its alloys				supplier	laminate	Chromium Oxide	1308-38-9		0.213	mg	29979	11300
					supplier	plating	Nickel(Ni)	7440-02-0		0.028	mg	3941	1485
					supplier	plating	Gold(Au)	7440-57-5		0.014	mg	1970	743
					supplier	plating	Palladium(Pd)	7440-05-3		0.001	mg	141	53
					supplier	Metalization	Tungsten (W)	7440-33-7		0.426	mg	59958	22599
					supplier	Metalization	Molybdenum (Mo)	7439-98-7		0.071	mg	9993	3767
Die attach	M-015 Other organic materials	0.377	mg	supplier	tape	Acrylic resin	538311-13-6		0.113	mg	300000	6000	
				supplier	tape	Epoxy resin	119345-05-0		0.207	mg	550000	11000	
				supplier	tape	Bisphenol A- Epoxy	25068-38-6		0.055	mg	145000	2900	
				supplier	tape	Additive	proprietary		0.002	mg	5000	100	
				supplier	glue	Dimethyl siloxane, dimethylvinylsiloxy- termi	68083-19-2		0.261	mg	925532	13846	
Die attach 2	M-015 Other organic materials	0.282	mg	supplier	glue	Hexamethyldisilazane	68909-20-6		0.020	mg	70922	1061	
				supplier	glue	Dimethyl, Methylhydrogen siloxane, hydrog	63148-57-2		0.001	mg	3546	53	
Bonding wire	M-008 Precious metals	0.037	mg	supplier	wire	Gold (Au)	7440-57-5		0.037	mg	1000000	1963	
Lid	M-011 Other inorganic materials	6.468	mg	supplier	metal cap	Iron	7439-89-6		5.035	mg	778500	267111	
				supplier	metal cap	Nickel	7440-02-0		0.598	mg	92500	31738	
				supplier	metal cap	Chromium	7440-47-3		0.705	mg	109000	37399	
				supplier	metal cap	Manganese	7439-96-5		0.129	mg	20000	6862	
Lid adhesive	M-015 Other organic materials	0.095	mg	supplier	adhesive	Silver (Ag)	7440-22-4		0.080	mg	842105	4244	
				supplier	adhesive	bisphenol-F-(epichlorhydrin); epoxy resin (n	9003-36-5		0.003	mg	31579	159	
				supplier	adhesive	Epoxy Resin	Proprietary		0.003	mg	31579	159	
				supplier	adhesive	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8		0.003	mg	31579	159	
				supplier	adhesive	H412Poly(oxy(methyl-1,2-ethanediy)), a-(2-	9046-10-0		0.003	mg	31579	159	
				supplier	adhesive	4-Methyl-2-phenyl-1H-imidazole	827-43-0		0.003	mg	31579	159	
Potting gel	M-015 Other organic materials	3.779	mg	supplier	Resin	modified perfluoropolyether	241148-23-2		2.463	mg	651760	130663	
				supplier	Resin	other	Proprietary		1.316	mg	348240	69814	