



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 *	2020-04-22
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 *	giovanni giacopello	Representative Title	ADG 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 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
STA1385ELAS2	8SSL*VA83BHQ	B	1054	2020-04-22
Amount	UoM	Unit type	ST ECOPACK Grade	
695.0	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	
SACN306	Tin/Silver/Copper (Sn/Ag/Cu)	Copper Alloy	DM00652478	


 life.augmented

Package Designator	Size	Nbr of instances	Shape	
BGA	16.00,16.00,1.70	361	bulk solder	
Comment	LFBGA16X16X1.7 361 F19X19 P.8B.4			

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			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	114.167	die - substrate - solder balls - capacitor1 - capacitor2	164269
Lead	0.009	solder balls	13

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	85SL*VA83BHQ									
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Die	M-011 Other inorganic materials	27.780	mg	supplier	die	Silicon(Si)	7440-21-3		26.148	mg	941253	37623				
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.181	mg	6515	260				
				supplier	metallisation	Copper(Cu)	7440-50-8		0.536	mg	19294	771				
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.002	mg	72	3				
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.096	mg	3456	135				
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.023	mg	828	33				
				supplier	metallisation	Tungsten(W)	7440-33-7		0.003	mg	108	4				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.128	mg	4608	184				
				supplier	passivation	Silicon Oxide	7631-86-9		0.663	mg	23866	954				
				Substrate	M-015 Other organic materials	431.361	mg	supplier	lamine	Fiber glass	65997-17-3		39.883	mg	92459	57386
supplier	lamine	Bismaleimide polymer	105391-33-1						7.228	mg	16756	10400				
supplier	lamine	Triazine (T)	25722-66-1						7.228	mg	16756	10400				
supplier	lamine	Thermosetting resin	54208-63-8						12.104	mg	28060	17416				
supplier	lamine	Aluminium hydroxide	21645-51-2						0.490	mg	1136	705				
supplier	lamine	Calcium sulfate	7778-18-9						0.245	mg	568	353				
supplier	lamine	Zinc hydroxide	20427-58-1						0.147	mg	341	212				
supplier	lamine	Epoxy type resin	proprietary						22.485	mg	52126	32353				
supplier	lamine	Other	proprietary						0.833	mg	1931	1199				
supplier	lamine	Barium sulfate	7727-43-7						3.558	mg	8248	5119				
supplier	lamine	Bisphenol F type epoxy resin	9003-36-5						3.440	mg	7975	4950				
supplier	lamine	polymerized Biphenyl resin	85954-11-6						1.397	mg	3239	2010				
supplier	lamine	Talc containing no asbestiform fibers	14807-96-6						0.860	mg	1994	1237				
supplier	lamine	Methoxymethylethoxy propanol	34590-94-8						0.849	mg	1968	1222				
supplier	lamine	Amorphous silica	7631-86-9						0.645	mg	1495	928				
supplier	metallisation	Copper(Cu)	7440-50-8						103.519	mg	239982	148948				
supplier	metallisation	Nickel(Ni)	7440-02-0						114.099	mg	264509	164171				
supplier	metallisation	Gold(Au)	7440-57-5						112.351	mg	260457	161656				
Die attach	M-015 Other organic materials	5.377	mg					supplier	glue	Silver(Ag)	7440-22-4		4.232	mg	787056	6089
								supplier	glue	Ditrimethylolpropane tetraacrylate	94108-97-1		0.968	mg	180026	1393
				supplier	glue	Diglycidyl phenyl allyl ether	EC 417-470-1		0.161	mg	29942	232				
				supplier	glue	Mequinol	150-76-5		0.016	mg	2976	23				
				supplier	wire	Gold(Au)	7440-57-5		4.208	mg	989885	6055				
Bonding wire	M-008 Precious metals	4.251	mg	supplier	wire	Palladium(Pd)	7440-05-3		0.043	mg	10115	62				
				supplier	wire	Palladium(Pd)	7440-05-3		0.043	mg	10115	62				
encapsulation	M-015 Other organic materials	134.774	mg	supplier	mold compound	Silica vitreous	60676-86-0		109.841	mg	815001	158045				
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		13.477	mg	99997	19391				
				supplier	mold compound	Phenol resin	205830-20-2		6.739	mg	50002	9696				
				supplier	mold compound	Magnesium dihydroxide	1309-42-8		0.135	mg	1002	194				
				supplier	mold compound	Quartz	14808-60-7		3.369	mg	24998	4847				
				supplier	mold compound	Carbon black	1333-86-4		1.213	mg	9000	1745				
				supplier	reflowed paste	Tin(Sn)	7440-31-5		0.066	mg	956522	95				
solder paste	Solder	0.069	mg	supplier	reflowed paste	Silver(Ag)	7440-22-4		0.002	mg	28986	3				
				supplier	reflowed paste	dry flux residue	proprietary		0.001	mg	14492	1				
				supplier	solder alloy	Tin(Sn)	7440-31-5		87.390	mg	963209	125741				
				supplier	solder alloy	Silver(Ag)	7440-22-4		2.722	mg	30002	3917				
				supplier	solder alloy	Copper(Cu)	7440-50-8		0.544	mg	5996	783				
Capacitor1	M-011 Other inorganic materials	0.330	mg	supplier	solder alloy	Nickel(Ni)	7440-02-0		0.036	mg	396	52				
				supplier	solder alloy	Antimony(Sb)	7440-36-0		0.027	mg	298	39				
				SVHC	solder alloy	Lead(Pb)	7439-92-1		0.009	mg	99	13				
				supplier	glass	Barium oxide	1304-28-5		0.147	mg	445455	212				
				supplier	glass	Borosilicate glass	65997-17-3		0.008	mg	24242	12				
				supplier	glass	Titanium dioxide	13463-67-7		0.073	mg	221212	105				
				supplier	metallization	Nickel(Ni)	7440-02-0		0.015	mg	45455	22				
				supplier	metallization	Copper(Cu)	7440-50-8		0.068	mg	206060	98				
				supplier	metallization	Tin(Sn)	7440-31-5		0.019	mg	57576	27				
				Capacitor2	M-011 Other inorganic materials	0.330	mg	supplier	glass	Barium oxide	1304-28-5		0.147	mg	445455	212
supplier	glass	Borosilicate glass	65997-17-3						0.008	mg	24242	12				
supplier	glass	Titanium dioxide	13463-67-7						0.073	mg	221212	105				
supplier	metallization	Nickel(Ni)	7440-02-0						0.015	mg	45455	22				
supplier	metallization	Copper(Cu)	7440-50-8						0.068	mg	206060	98				

				supplier	metallization	Tin(Sn)	7440-31-5		0.019	mg	57576	27
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