



Materials Declaration Form

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

* : Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-09-10
Company Unique ID	NL 008751171B01		
Contact Name *	Floriana SAN BIAGIO	Contact Title	AMS MD Champion
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
	77AB*MV7DABB	A	CA2A	2018-09-10
	Amount	UoM	Unit type	ST ECOPACK Grade
	16.0	mg	Each	ECOPACK* 2
Comment	ECOPACK* 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant			

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		



Package Designator	Size	Nbr of instances	Shape	
LGA	3x3x0.86	16	flat	
Comment	A0ZS VFLGA 3X3X0.86; MDF valid for LSM6DS33TR			

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 : REACH- 27th June 2018				
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	77AB*MV7DAB		Location	Material ID	Lot/Part ID		
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in Homogeneous Material (ppm)	Concentration in product (ppm)
Die		6.846	mg	supplier	die	Silicon (Si)	7440-21-3		6.359	mg	928864	397438
				supplier	metallisation	Aluminium (Al)	7429-90-5		0.018	mg	2629	1125
				supplier	metallisation	Copper (Cu)	7440-50-8		0.022	mg	3214	1375
				supplier	metallisation	Cobalt (Co)	7440-48-4		0.013	mg	1899	813
				supplier	metallisation	Tantalum (Ta)	7440-25-7		0.005	mg	730	313
				supplier	metallisation	Titanium (Ti)	7440-32-6		0.007	mg	1022	438
				supplier	metallisation	Tungsten (W)	7440-33-7		0.002	mg	292	125
				supplier	metallisation	Zirconium (Zr)	7440-67-7		0.002	mg	292	125
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.012	mg	1753	750
				supplier	passivation	Silicon Oxide	7631-86-9		0.087	mg	12708	5438
				JIG-R & California 65	die glass coating	Lead-Borate Glass	65997-18-4	7c-4-Electrical and electron	0.319	mg	46597	19938
				supplier	prepreg	Fiber glass	65997-17-3		0.403	mg	238603	25188
				supplier	prepreg	epoxy resin	61788-97-4		0.085	mg	50326	5313
				supplier	prepreg	Triazine (T)	25722-66-1		0.107	mg	63351	6688
				supplier	prepreg	Epoxy resin	223769-10-6		0.045	mg	26643	2813
				supplier	prepreg	Calcium carbonate	471-34-1		0.179	mg	105980	11188
				supplier	prepreg	Amorphous silica	7631-86-9		0.063	mg	37300	3938
				supplier	prepreg	Metal hydroxide	Proprietary		0.013	mg	7697	813
				supplier	Solder mask	Acrylic resin	9003-01-4		0.337	mg	199526	21063
				supplier	Solder mask	Epoxy resin	9003-36-5		0.131	mg	77561	8188
				supplier	Solder mask	Barium sulfate	7727-43-7		0.095	mg	56246	5938
				supplier	Solder mask	Silica, vitreous	60676-86-0		0.032	mg	18946	2000
				supplier	Solder mask	Talc	14807-96-6		0.022	mg	13025	1375
				supplier	Solder mask	Phosphinoyl derivative	75980-60-8		0.010	mg	5921	625
				supplier	Solder mask	Silane reaction products with silica	68611-44-9		0.006	mg	3552	375
				supplier	Solder mask	Phthalocyanine blue	147-14-8		0.003	mg	1776	188
				supplier	metallisation	Copper (Cu)	7440-50-8		0.023	mg	13618	1438
	M-006 Nickel and its alloys			supplier	metallisation	Nickel (Ni)	7440-02-0		0.120	mg	71048	7500
	M-008 Precious metals			supplier	metallisation	Gold (Au)	7440-57-5		0.015	mg	8881	938
Die attach	M-015 Other organic materials	0.202	mg	supplier	tape	amorphous silica	7631-86-9		0.081	mg	400990	5063
				supplier	tape	polyethylen terephthalate	25038-59-9		0.079	mg	391089	4938
				supplier	tape	Acrylic resin	9003-01-4		0.018	mg	89109	1125
				supplier	tape	epoxy resin	Proprietary		0.014	mg	69307	875
				supplier	tape	Bisphenol A diglycidyl ether	25036-25-3		0.010	mg	49505	625
Die attach 2	M-015 Other organic materials	0.196	mg	supplier	tape	amorphous silica	7631-86-9		0.078	mg	397959	4875
				supplier	tape	polyethylen terephthalate	25038-59-9		0.076	mg	387755	4750
				supplier	tape	Acrylic resin	9003-01-4		0.018	mg	91837	1125
				supplier	tape	epoxy resin	Proprietary		0.014	mg	71429	875
				supplier	tape	Bisphenol A diglycidyl ether	25036-25-3		0.010	mg	51020	625
Bonding wire	M-008 Precious metals	0.105	mg	supplier	wire	Gold (Au)	7440-57-5		0.104	mg	990476	6500
				supplier	wire	Palladium (Pd)	7440-05-3		0.001	mg	9524	63
encapsulation	M-015 Other organic materials	6.963	mg	supplier	mold compound	Silica, vitreous	60676-86-0		6.301	mg	904926	393813
				supplier	mold compound	Epoxyde Bisphenol A Resin	25068-38-6		0.174	mg	24989	10875
				supplier	mold compound	Epoxy Resin	Proprietary		0.279	mg	40069	17438
				supplier	mold compound	Phenol Resin	Proprietary		0.174	mg	24989	10875
				supplier	mold compound	Carbon black	1333-86-4		0.035	mg	5027	2188