



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-04-24
Company Unique ID	NL 008751171801		
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
	77FF*MV7UACB	A	CA2A	2018-04-24
Amount	UoM	Unit type	ST ECOPACK Grade	
13.2	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/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
LGA	2.5x3x0.86	14	flat	
Comment	A08N VFLGA2.5X3X.86 14L P.5 L.475X.25; MDF valid for ISM330DLCTR			

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)	false
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Exemption id.	Description
7c-1	7c-1-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- 15th January 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
4,4'-isopropylidenediphenol (bisphenol A; BPA)	1000 ppm	0.003	Substance embedded in substrate material	227
:				
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Homogeneous Material above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Homogeneous Material (mg)	Application - Homogeneous Material	ppm in Homogeneous Material
4,4'-isopropylidenediphenol (bisphenol A; BPA)	1000 ppm	0.003	Substance embedded in substrate materials	1136
:				

Material Composition Declaration					Mfr Item Name	77FF*MVJUACB		Weight	Volume	Concentration, All Homogeneous Material (ppm)	Concentration, All Homogeneous Material (ppm)					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration, All Homogeneous Material (ppm)	Concentration, All Homogeneous Material (ppm)				
Dies		6.674	mg	supplier	die	Silicon (Si)	7440-21-3		6.205	mg	929727	470076				
				supplier	metallisation	Aluminium (Al)	7429-90-5		0.015	mg	2248	1136				
				supplier	metallisation	Copper (Cu)	7440-50-8		0.018	mg	2697	1364				
				supplier	metallisation	Cobalt (Co)	7440-48-4		0.013	mg	1948	985				
				supplier	metallisation	Tantalum (Ta)	7440-25-7		0.004	mg	599	303				
				supplier	metallisation	Titanium (Ti)	7440-32-6		0.006	mg	899	455				
				supplier	metallisation	Tungsten (W)	7440-33-7		0.002	mg	300	152				
				supplier	metallisation	Zirconium (Zr)	7440-67-7		0.002	mg	300	152				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.010	mg	1498	758				
				supplier	passivation	Silicon Oxide	7631-86-9		0.080	mg	11987	6061				
				supplier	IG - R & California 6S	die glass coating	Lead Borate Glass	65997-18-4	7c-1-Electrical and electron	0.319	mg	47797	24167			
				substrate	M-015 Other organic materials	2.640	mg	supplier	core material	Fiber glass	65997-17-3		0.393	mg	148864	29773
								supplier	core material	Bisphenol F type epoxy resin	9003-36-5		0.219	mg	82955	16591
								supplier	core material	Bismaleimide (BI)	105391-33-1		0.132	mg	50000	10000
								supplier	core material	Triazine (T)	25722-66-1		0.132	mg	50000	10000
								supplier	core material	metal hydroxide	21645-51-2		0.009	mg	3409	682
								supplier	core material	Zinc hydroxide	20427-58-1		0.002	mg	758	152
supplier	core material	Calcium sulfate	7778-18-9						0.005	mg	1894	879				
supplier	core material	BPA	80-05-7						0.003	mg	1136	227				
supplier	Solder mask	Acrylic resin	9003-01-4						0.193	mg	73106	14621				
supplier	Solder mask	Barium sulfate	7727-43-7						0.082	mg	31061	6212				
supplier	Solder mask	epoxy resin	85954-11-6						0.071	mg	26894	5379				
supplier	Solder mask	Talc	14807-96-6						0.049	mg	18561	3712				
supplier	Solder mask	aromatic hydrocarbon	64742-94-5						0.022	mg	8133	1667				
supplier	Solder mask	(Z-methoxymethylethoxy)propanol	34590-94-8						0.054	mg	20455	4091				
supplier	Solder mask	Acetate compound	112-15-2						0.054	mg	20455	4091				
supplier	Solder mask	DPMA	88917-22-0						0.011	mg	4167	833				
supplier	Solder mask	Diphenyl-trimethylbenzoyl phosphine oxide	75980-60-8						0.008	mg	3030	606				
supplier	metallisation	Copper (Cu)	7440-50-8		1.077	mg	407955	81591								
supplier	metallisation	Nickel (Ni)	7440-02-0		0.105	mg	39773	7955								
supplier	metallisation	Gold (Au)	7440-57-5		0.019	mg	7197	1439								
Die attach	M-015 Other organic materials	0.361	mg	supplier	tape	epoxy resin	25068-38-6		0.228	mg	631579	12723				
				supplier	tape	Polypropylene	9003-07-0		0.007	mg	19391	530				
				supplier	tape	epoxy resin	29690-82-2		0.036	mg	99723	2727				
				supplier	tape	propenoate polymer	538311-13-6		0.072	mg	199446	5455				
				supplier	tape	Diphenol Propane Diglycidyl Ether	1675-54-3		0.018	mg	49861	1364				
Bonding wire	M-008 Precious metals	0.285	mg	supplier	wire	Gold (Au)	7440-57-5		0.282	mg	989474	21364				
				supplier	wire	Palladium (Pd)	7440-05-3		0.003	mg	10526	227				
encapsulation	M-015 Other organic materials	3.240	mg	supplier	mold compound	Silica, vitreous	60676-86-0		2.932	mg	904938	222121				
				supplier	mold compound	epoxydie Bisphenol A Resin	25068-38-6		0.081	mg	25000	6136				
				supplier	mold compound	epoxy Resin	29690-82-2		0.130	mg	40123	9848				
				supplier	mold compound	Phenol Resin	Proprietary		0.081	mg	25000	6136				
				supplier	mold compound	Carbon black	1333-86-4		0.016	mg	4938	1212				