



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 *	2018-04-26
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	Floriana SAN BIAGIO	Representative Title	AMS MD 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
	18L0*UAM5CBA	A	CA2A	2018-04-26
	Amount	UoM	Unit type	ST ECOPACK Grade
	23	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 (in each organic material)			

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	Comment	
Not Applicable	Nickel/Palladium (Ni/Pd)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	3x3x0.9	12	flat	
Comment	A0LO VFDFPN 12L 3X3X0.9 PITCH 0,45; MDF valid for L6362ATR			

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
-	-			0
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
-	-	0.00		

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	18LO*UAMS CBA				5000000.0	1000041.0
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	1.928	mg	supplier	die	Silicon (Si)	7440-21-3		1.928	mg	1000000	83826
				supplier	die	Silicium carbide	409-21-2		0.000	mg		
				supplier	die	Mica	12001-26-2		0.000	mg		
				supplier	die	Sapphire	1317-82-4		0.000	mg		
				supplier	die	Gallium Arsenide	1303-00-0		0.000	mg		
				supplier	metallization	Aluminium (Al)	7429-90-5		0.000	mg		
				supplier	metallization	Arsenic (As)	7440-38-2		0.000	mg		
				supplier	metallization	Bore (B)	7440-42-8		0.000	mg		
				supplier	metallization	Chromium (Cr)	7440-47-3		0.000	mg		
				supplier	metallization	Copper (Cu)	7440-50-8		0.000	mg		
				supplier	metallization	Cobalt (Co)	7440-48-4		0.000	mg		
				supplier	metallization	Germanium (Ge)	7440-56-4		0.000	mg		
				supplier	metallization	GeSbTe	Proprietary		0.000	mg		
				supplier	metallization	Gold (Au)	7440-57-5		0.000	mg		
				supplier	metallization	Iridium oxide	12030-49-8		0.000	mg		
				supplier	metallization	Iron (Fe)	7439-89-6		0.000	mg		
				supplier	metallization	Lanthane (La)	7439-91-0		0.000	mg		
				supplier	metallization	Lithium (Li)	7439-93-2		0.000	mg		
				supplier	metallization	Lithium Cobalt oxide	12190-79-3		0.000	mg		
				supplier	metallization	Lithium phosphate	10377-52-3		0.000	mg		
				supplier	metallization	Manganese (Mn)	7439-96-5		0.000	mg		
				supplier	passivation	Nickel (Ni)	7440-02-0		0.000	mg		
				supplier	passivation	Palladium (Pd)	7440-05-3		0.000	mg		
				supplier	passivation	Phosphorus (P)	7723-14-0		0.000	mg		
				supplier	metallization	Platinum (Pt)	7440-06-4		0.000	mg		
				supplier	metallization	Silver (Ag)	7440-22-4		0.000	mg		
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.000	mg		
				supplier	metallization	Tin (Sn)	7440-31-5		0.000	mg		
				supplier	metallization	Titanium (Ti)	7440-32-6		0.000	mg		
				supplier	metallization	Tungsten (W)	7440-33-7		0.000	mg		
				supplier	metallization	Zirconium (Zr)	7440-67-7		0.000	mg		
				supplier	Passivation	Barium titanate	12047-27-7		0.000	mg		
				supplier	Passivation	Hafnium oxide	12055-23-1		0.000	mg		
				supplier	Passivation	Indium Tin oxide	50926-11-9		0.000	mg		
				JIG - R	Passivation	Lead (Pb)	7439-92-1		0.000	mg		
				supplier	Passivation	Silicon Nitride	12033-89-5		0.000	mg		
				supplier	Passivation	Silicon Oxide	7631-86-9		0.000	mg		
				supplier	Passivation	Strontium titanate	12060-59-2		0.000	mg		
				SVHC	Passivation	Lead, Zirconate, Titanate (PZT)	12626-81-2	7c1-Electrical and e	0.000	mg		
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.000	mg		
				supplier	back side metallization	Copper (Cu)	7440-50-8		0.000	mg		
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.000	mg		
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.000	mg		
				supplier	back side metallization	Gold (Au)	7440-57-5		0.000	mg		
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.000	mg		
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.000	mg		
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.000	mg		
				supplier	back side metallization	Arsenic (As)	7440-38-2		0.000	mg		
				supplier	glass coating	Glass : Aluminium Oxide (Al2O3)	1344-28-1		0.000	mg		
				JIG - R & California 65	glass coating	Lead-Borate Glass	65997-18-4		0.000	mg		
				supplier	glass coating	Borosilicate glass	65997-17-3		0.000	mg		
				supplier	glass coating	Glass : Potassium Oxide	12136-45-7		0.000	mg		
				supplier	glass coating	Glass : Sodium Oxide	1313-59-3		0.000	mg		
				supplier	glass coating	Glass: Silicon Dioxide	7631-86-9		0.000	mg		
				supplier	glass	Quartz	14808-60-7		0.000	mg		
				supplier	polymer die coating	Polymer resist - Benzocyclobutene (BCB)	694-87-1		0.000	mg		
				supplier	polymer die coating	BCB	124221-30-3		0.000	mg		
				supplier	polymer die coating	PBO polybenzoxazol	29791-96-6		0.000	mg		
				supplier	polymer die coating	Polymer resist - ASAHI	Proprietary		0.000	mg		

				supplier	polymer die coating	Polymer resist (Black resist)	Proprietary		0.000	mg		
				supplier	polymer die coating	Polymer resist (color, planar, lens)	Proprietary		0.000	mg		
				supplier	polymer die coating	Polymer resist (Glue)	Proprietary		0.000	mg		
				supplier	polymer die coating	PVDC	9002-85-1		0.000	mg		
				supplier	polymer die coating	Polyimide AH 1200	Proprietary		0.000	mg		
				supplier	polymer	Epoxyde Bisphenol A Resin	25068-38-6		0.000	mg		
				supplier	polymer	epoxypropoxy naphthalene	27610-48-6		0.000	mg		
				supplier	polymer	Epoxy Cresol Novolak	29690-82-2		0.000	mg		
				supplier	polymer	Phenylodionium hexafluoroantimonate	139301-16-9		0.000	mg		
				supplier	polymer	Acetophenone	98-86-2		0.000	mg		
				supplier	polymer	chloromethyl-oxirane	28906-96-9		0.000	mg		
				supplier	polymer	Bisphenol A diglycidyl ether polymer	25036-25-3		0.000	mg		
				supplier	polymer die coating	Durimide	Proprietary		0.000	mg		
				supplier	polymer die coating	PIX1 Polyimide	108-65-6		0.000	mg		
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.000	mg		
				#N/A	polymer die coating	0			0.000	mg		
				#N/A	polymer die coating	0	0		0.000	mg		
				#N/A	polymer die coating	0	0		0.000	mg		
				#N/A	polymer die coating	0	0		0.000	mg		
				#N/A	polymer die coating	0	0		0.000	mg		
				#N/A	polymer die coating	0	0		0.000	mg		
				supplier	UBM	Aluminium (Al)	7429-90-5		0.000	mg		
				supplier	UBM	Copper (Cu)	7440-50-8		0.000	mg		
				supplier	UBM	Titanium (Ti)	7440-32-6		0.000	mg		
				supplier	UBM	Chromium (Cr)	7440-47-3		0.000	mg		
				supplier	UBM	Gold (Au)	7440-57-5		0.000	mg		
				supplier	UBM	Nickel (Ni)	7440-02-0		0.000	mg		
				supplier	UBM	Vanadium (V)	7440-62-2		0.000	mg		
				supplier	UBM	Silver (Ag)	7440-22-4		0.000	mg		
				supplier	UBM	Tungsten (W)	7440-33-7		0.000	mg		
				supplier	bump	Tin (Sn)	7440-31-5		0.000	mg		
				supplier	bump	Silver (Ag)	7440-22-4		0.000	mg		
				supplier	bump	Copper (Cu)	7440-50-8		0.000	mg		
				supplier	bump	Nickel (Ni)	7440-02-0		0.000	mg		
				supplier	bump	Antimony (Sb)	7440-36-0		0.000	mg		
				JIG - R	bump	Lead (Pb)	7439-92-1	15-Lead in solders	0.000	mg		
Leadframe	M-004 Copper and its alloys	2.371	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.345	mg	989034	101957
				supplier	alloy	Iron (Fe)	7439-89-6		0.001	mg	422	43
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.002	mg	844	87
	M-006 Nickel and its alloys			supplier	metallization	Nickel (Ni)	7440-02-0		0.021	mg	8857	913
	M-008 Precious metals			supplier	metallization	Palladium (Pd)	7440-05-3		0.001	mg	422	43
	M-008 Precious metals			supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	422	43
Die attach	M-015 Other organic materials	0.692	mg	supplier	glue	Silver (Ag)	7440-22-4		0.553	mg	799133	24043
				supplier	glue	methylene diacrylate	42594-17-2		0.113	mg	163295	4913
				supplier	glue	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.017	mg	24566	739
				supplier	glue	Epoxy-cyclohexylethyltrimethoxysilane	3388-04-3		0.004	mg	5780	174
				supplier	glue	Bis[α -dimethylbenzyl] peroxide	80-43-3		0.004	mg	5780	174
				supplier	glue	Palladium (Pd)	7440-05-3		0.001	mg	1445	43
Bonding wires	M-004 Copper and its alloys	0.070	mg	supplier	wire	Copper (Cu)	7440-50-8		0.070	mg	1000000	3043
Encapsulation	M-011 Other inorganic materials	17.940	mg	supplier	mold compound	silica vitreous	60676-86-0		15.786	mg	879933	686348
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.897	mg	50000	39000
				supplier	mold compound	Phenolic resin	205830-20-2		0.700	mg	39019	30435
				supplier	mold compound	Epoxy resin	Proprietary		0.359	mg	20011	15609
				supplier	mold compound	carbon black	1333-86-4		0.036	mg	2007	1555
				supplier	mold compound	other	Proprietary		0.162	mg	9030	7043