



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 *	2015-01-21
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 *	Carole DEL PUPPO	Representative Title	DPG-CPD 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
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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
STDP9320-BBA2/	A2J3*9320BBM	A	9991	2015-01-21
	Amount	UoM	Unit type	ST ECOPACK Grade
	2571.0	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	Comment	
Tin - 3.5Ag	NAC	other	ST BSA CD00335330 5.0	

Package Designator	Size	Nbr of instances	Shape	
BGA	23x23x2.06	521	bulk solder	
Comment	HSBGA23SQx2.06-521-5R27-P.8-B.5			

QueryList : ROHS directive 2011/65/EU _ANNEX IV	
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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	false

QueryList : REACH-16th June 2014				
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

Material Composition Declaration						Mfr Item Name	A2J3*9320BBM					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	25.642	mg	supplier	Silicon die	Silicon (Si)	7440-21-3		24.558	mg	957726	9552
				supplier	die metallization	Aluminium (Al)	7429-90-5		0.074	mg	2886	29
				supplier	die metallization	Copper (Cu)	7440-50-8		0.445	mg	17354	173
				supplier	die metallization	Tantalum (Ta)	7440-25-7		0.063	mg	2457	25
				supplier	die metallization	Titanium (Ti)	7440-32-6		0.051	mg	1989	20
				supplier	die metallization	Tungsten (W)	7440-33-7		0.003	mg	117	1
				supplier	die metallization	Nickel (Ni)	7440-02-0		0.002	mg	78	1
				supplier	die metallization	Silicon Nitride (SiN)	68034-42-4		0.101	mg	3939	39
				supplier	Die passivation	Silicon Oxide(SiO2)	7631-86-9		0.345	mg	13454	134
				supplier	core material	Glass cloth	65997-17-3		91.380	mg	114216	35543
substrate	Other Organic Materials	800.060	mg	supplier	core material	Epoxy	Trade Secret		72.870	mg	91081	28343
				supplier	core material	Flame Resistant Epoxy Resin	Trade Secret		72.870	mg	91081	28343
				supplier	core material	Heat Resistant Resin	Trade Secret		87.450	mg	109304	34014
				supplier	core material	Inorganic Filler	Trade Secret		153.040	mg	191286	59525
				supplier	Solder mask	Talc containing no asbestiform fiber	14807-96-6		49.930	mg	62408	19420
				supplier	Solder mask	Morpholine derivative	Trade Secret		12.840	mg	16049	4994
				supplier	Solder mask	Barium Sulfate	7727-43-7		3.570	mg	4462	1389
				supplier	Solder mask	Silica, amorphous	7631-86-9		1.780	mg	2225	692
				supplier	Solder mask	Dipropylene glycol monomethyl ether	34590-94-8		3.210	mg	4012	1249
				supplier	metallisation	Cu	7440-50-8		240.490	mg	300590	93539
				supplier	metallisation	Ni	7440-02-0		8.740	mg	10924	3399
				supplier	metallisation	Au	7440-57-5		1.890	mg	2362	735
				Die attach		1.170	mg	supplier	glue	Silver	7440-57-5	
supplier	glue	Bismaleimide monomer	Trade Secret						0.160	mg	136752	62
supplier	glue	Acrylate monomer	Trade Secret						0.040	mg	34388	16
supplier	glue	Epoxy resin	Trade Secret						0.050	mg	42735	19
supplier	glue	Acrylic resin	Trade Secret						0.040	mg	34388	16
Bonding wire	Precious metals	6.512	mg	supplier	wire	Gold(Au)	7440-57-5		6.447	mg	990018	2508
				supplier	wire	Palladium(Pd)	7440-05-3		0.065	mg	9982	25
Encapsulation	Other Organic Materials	690.020	mg	supplier	mold compound	Epoxy resin1	Trade Secret		32.083	mg	46496	12479
				supplier	mold compound	Epoxy resin2	Trade Secret		20.697	mg	29995	8050
				supplier	mold compound	Hardener 1	Trade Secret		8.283	mg	12004	3222
				supplier	mold compound	Hardener 2	Trade Secret		20.697	mg	29995	8050
				supplier	mold compound	Carbon black	1333-86-4		1.038	mg	1504	404
solder balls	Solder	199.730	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		192.740	mg	965003	74967
				supplier	solder alloy	Silver (Ag)	7440-22-4		6.990	mg	34997	2719
Heat spreader	Copper & its alloys	845.210	mg	supplier	Heat spreader	Copper(Cu)	7440-50-8		840.140	mg	994001	326776
				supplier	Heat spreader	Nickel (Ni)	7440-02-0		4.730	mg	5596	1840
Heat spreader attach		3.140	mg	supplier	Heat spreader	Chrome(Cr)	7440-47-3		0.340	mg	402	132
				supplier	Glue	Silver	7440-22-4		2.400	mg	764331	933
				supplier	Glue	Epoxy Resin A	9003-36-5		0.200	mg	63694	78
				supplier	Glue	Epoxy Resin B	126-80-7		0.160	mg	50955	62
				supplier	Glue	Hardener	620-92-8		0.110	mg	35032	43
				supplier	Glue	Butyl cellosolve acetate	112-07-2		0.130	mg	41401	51
				supplier	Glue	t-Butyl phenyl glycidyl ether	3101-60-8		0.140	mg	44586	54