



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 *	2015-10-23
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	DCG Materials 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/internet/com/support/online_tech_support.jsp		

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
STV0910ADB/B22, STV0910BDB/B22	22P3*0910BBL, 22P3*0910ABL	A	MA1A	2015-10-23
Amount		UoM	Unit type	ST ECOPACK Grade
375.0		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/Silver/Copper (SAC125)	NAC	Copper Alloy	ST BSA CD00352321 4.0 1F032513	

Package Designator	Size	Nbr of instances	Shape	
BGA	12x12x1.7	168	bulk solder	
Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant			

QueryList : ROHS directive 2011/65/EU _ANNEX IV	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList :REACH-15 June 2015	
Query	Response
The product does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH	true

Material Composition Declaration						Mfr Item Name	22P3*0910BBL, 22P3*0910ABL					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	7.794	mg	supplier	die	Silicon (Si)	7440-21-3		7.405	mg	950090	19747
die (s)				supplier	metallisation	Aluminium (Al)	7429-90-5		0.043	mg	5517	115
die (s)				supplier	metallisation	Copper (Cu)	7440-50-8		0.127	mg	16295	339
die (s)				supplier	metallisation	Tantalum (Ta)	7440-25-7		0.023	mg	2951	61
die (s)				supplier	metallisation	Titanium (Ti)	7440-32-6		0.005	mg	642	13
die (s)				supplier	metallisation	Tungsten (W)	7440-33-7		0.001	mg	128	3
die (s)				supplier	metallisation	Nickel (Ni)	7440-02-0		0.001	mg	128	3
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.031	mg	3977	83
die (s)				supplier	passivation	Silicon Oxide	7631-86-9		0.158	mg	20272	421
substrate	Other Organic Materials	98.393	mg	supplier	core material	Bismaleimide (B)	105391-33-1		8.071	mg	82028	21523
substrate				supplier	core material	Triazine (T)	25722-66-1		8.071	mg	82028	21523
substrate				supplier	core material	Fiber glass	65997-17-3		24.077	mg	244702	64205
substrate				supplier	core material	metal hydroxide	21645-51-2		0.547	mg	5559	1459
substrate				supplier	core material	Zinc hydroxide	20427-58-1		0.164	mg	1667	437
substrate				supplier	core material	Thermosetting resin	54208-63-8		13.516	mg	137367	36043
substrate				supplier	core material	Calcium sulfate	7778-18-9		0.274	mg	2785	731
substrate				supplier	Solder mask	Barium sulfate	7727-43-7		1.468	mg	14920	3915
substrate				supplier	Solder mask	(2-methoxymethylethoxy)propanol	34590-94-8		0.245	mg	2490	653
substrate				supplier	Solder mask	Talc containing no asbestiform fibers	14807-96-6		0.816	mg	8293	2176
substrate				supplier	Solder mask	Quartz	14808-60-7		0.816	mg	8293	2176
substrate				supplier	Solder mask	Acrylates derivative	9003-01-4		3.377	mg	34322	9005
substrate				supplier	Solder mask	Epoxy resin	29690-82-2		1.109	mg	11271	2957
substrate				supplier	Solder mask	aromatic hydrocarbon	Proprietary		0.322	mg	3273	859
substrate				supplier	Solder mask	Chlorine	22537-15-1		0.003	mg	30	8
substrate				supplier	Solder mask	Bromine	7726-95-6		0.001	mg	10	3
substrate				supplier	metallisation	Copper (Cu)	7440-50-8		32.575	mg	331070	86867
substrate				supplier	metallisation	Nickel (Ni)	7440-02-0		1.612	mg	16383	4299
substrate				supplier	metallisation	Gold (Au)	7440-57-5		0.729	mg	7409	1944
substrate				supplier	metallisation	Palladium (Pd)	7440-05-3		0.6	mg	6098	1600
Die attach		2.38	mg	supplier	glue	Silver (Ag)	7440-22-4		1.845	mg	775210	4920
Die attach				supplier	glue	2,6-Diglycidyl phenyl allyl ether	EC 417-470-1		0.071	mg	29832	189
Die attach				supplier	glue	Epoxyde Bisphenol A Resin	25068-38-6		0.464	mg	194958	1237
Bonding wire	Precious metals	1.432	mg	supplier	wire	Gold (Au)	7440-57-5		1.418	mg	990223	3781
Bonding wire				supplier	wire	Palladium (Pd)	7440-05-3		0.014	mg	9777	37
encapsulation	Other Organic Materials	223.763	mg	supplier	mold compound	Biphenyl epoxy resin	85954-11-6		22.376	mg	99999	59669
encapsulation				supplier	mold compound	Phenol resin	205830-20-2		11.188	mg	49999	29835
encapsulation				supplier	mold compound	Quartz	14808-60-7		5.594	mg	25000	14917
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		182.367	mg	815001	486312
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		2.014	mg	9001	5371
encapsulation				supplier	mold compound	Magnesium dihydroxide	1309-42-8		0.224	mg	1001	597
solder balls	Solder	41.265	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		40.548	mg	982625	108128
solder balls				supplier	solder alloy	Silver (Ag)	7440-22-4		0.495	mg	11996	1320
solder balls				supplier	solder alloy	Copper (Cu)	7440-50-8		0.206	mg	4992	549
solder balls				supplier	solder alloy	Nickel (Ni)	7440-02-0		0.012	mg	291	32
solder balls				R	solder alloy	Lead (Pb)	7439-92-1		0.004	mg	97	11