



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 *	2014-02-13
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 *	Giovanni Giacopello	Representative Title	AMS & IPD 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
	22AB*MV1EAFB	A	MA1A	2014-02-13
Amount	UoM	Unit type	ST ECOPACK Grade	
8.0	mg	Each	ECOPACK® 2	

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 ; if coating is used o	Nickel/Gold (Ni/Au), electrolytic	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
LGA	2,2,1	12	No lead	
Comment	Package: VFLGA 2X2X1 12LD PITCH 0.5MM; MDF valid also for K2DH; K2DHTR; LIS2DH12; LIS2DH12TR			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
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)	true
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
7c-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devic

QueryList : REACH-16th December 2013				
Query				Response
The product 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
Diboron trioxide	1000 ppm	0.012		1500

Material Composition Declaration						Mfr Item Name	22AB*MV1EAFB					
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	3.034	mg	supplier	die	Silicon (Si)	7440-21-3		2.707	mg	892221	338375
die (s)				supplier	metallisation	Aluminium (Al)	7429-90-5		0.008	mg	2637	1000
die (s)				supplier	metallisation	Copper (Cu)	7440-50-8		0.017	mg	5603	2125
die (s)				supplier	metallisation	Tantalum (Ta)	7440-25-7		0.001	mg	330	125
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.006	mg	1978	750
die (s)				supplier	passivation	Silicon Oxide	7631-86-9		0.125	mg	41200	15625
die (s)				R	passivation	Lead Oxide	1317-36-8	7c-I-Electrical and	0.109	mg	35926	13625
die (s)				supplier	passivation	Boron Trioxide	1303-86-2		0.012	mg	3955	1500
die (s)				supplier	passivation	Silicon Oxide	7631-86-9		0.017	mg	5603	2125
die (s)				supplier	passivation	Aluminium oxide	1344-28-1		0.017	mg	5603	2125
die (s)				supplier	passivation	Butyl Carbitol Acetate	124-17-4		0.009	mg	2966	1125
die (s)				supplier	passivation	Ethyl cellulose	9004-57-3		0.003	mg	989	375
die (s)				supplier	passivation	Terpineol	8000-41-7		0.003	mg	989	375
substrate	Other Organic Materials	2.236	mg	supplier	core material	Bismaleimide (B)	105391-33-1		0.236	mg	105546	29500
substrate				supplier	core material	Triazine (T)	25722-66-1		0.236	mg	105546	29500
substrate				supplier	core material	Fiber glass	65997-17-3		0.704	mg	314848	88000
substrate				supplier	core material	metal hydroxide	21645-51-2		0.016	mg	7156	2000
substrate				supplier	core material	Zinc hydroxide	20427-58-1		0.005	mg	2236	625
substrate				supplier	core material	Thermosetting resin	54208-63-8		0.395	mg	176655	49375
substrate				supplier	core material	Calcium sulfate	7778-18-9		0.008	mg	3578	1000
substrate				supplier	Solder mask	Baryum sulfate	7727-43-7		0.043	mg	19231	5375
substrate				supplier	Solder mask	(2-methoxymethylethoxy)propanol	34590-94-8		0.007	mg	3131	875
substrate				supplier	Solder mask	Talc containing no asbestos fibers	14807-96-6		0.024	mg	10733	3000
substrate				supplier	Solder mask	Quartz	14808-60-7		0.024	mg	10733	3000
substrate				supplier	Solder mask	Acrylates derivative	9003-01-4		0.099	mg	44275	12375
substrate				supplier	Solder mask	Epoxy resin	29690-82-2		0.033	mg	14758	4125
substrate				supplier	Solder mask	aromatic hydrocarbon	Proprietary		0.01	mg	4472	1250
substrate				supplier	metallisation	Copper (Cu)	7440-50-8		0.372	mg	166369	46500
substrate				supplier	metallisation	Nickel (Ni)	7440-02-0		0.02	mg	8945	2500
substrate				supplier	metallisation	Gold (Au)	7440-57-5		0.004	mg	1789	500
Die attach		0.445	mg	supplier	glue or tape	Acrylic resin	9003-01-4		0.141	mg	316854	17625
Die attach				supplier	glue or tape	epoxy resin	Proprietary		0.282	mg	633708	35250
Die attach				supplier	glue or tape	Diphenol Propane Diglycidyl Ether	1675-54-3		0.022	mg	49438	2750
Bonding wire		0.188	mg	supplier	wire	Gold (Au)	7440-57-5		0.186	mg	989362	23250
Bonding wire				supplier	wire	Palladium (Pd)	7440-05-3		0.002	mg	10638	250
encapsulation		2.097	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1.834	mg	874583	229250
encapsulation				supplier	mold compound	Epoxy Resin	85954-11-6		0.084	mg	40057	10500
encapsulation				supplier	mold compound	Epoxy resin	Proprietary		0.084	mg	40057	10500
encapsulation				supplier	mold compound	Phenol Resin	26834-02-6		0.084	mg	40057	10500
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.011	mg	5246	1375