



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 *	2013-06-12
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 *	Antonella Lanzafame	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
	A51J*UD14EF1	A	MU1A	2013-06-12
Amount	UoM	Unit type	ST ECOPACK Grade	
347.00	mg	Each	ECOPACK® 1	

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 ; if coating is used o	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	10.00,10.00,1.40	44	gull wing	
Comment	LQFP 44 10x10x1.4 1.0 SLUG DOWN			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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-19 December 2012				
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

Material Composition Declaration						Mfr Item Name	AS1J*UD14EF1					
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	11.689	mg	supplier	die	Silicon (Si)	7440-21-3		11.164	mg	955086	32173
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.074	mg	6331	213
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.117	mg	10009	337
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.018	mg	1540	52
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.173	mg	14800	499
die (s)				supplier	passivation	Gamma-butyrolactone	96-48-0		0.049	mg	4192	141
die (s)				supplier	passivation	Polyhydroxyamide	55295-98-2		0.022	mg	1882	63
die (s)				supplier	passivation	Alcoxysilane	proprietary		0.001	mg	86	3
die (s)				supplier	passivation	Aryl Siliclic Acid	proprietary		0.001	mg	86	3
die (s)				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.006	mg	513	17
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.057	mg	4876	164
die (s)				supplier	glass coating	Glass: Silicon Dioxide (SiO2)	7631-86-9		0.007	mg	599	20
Leadframe	Copper & its alloys	101.296	mg	supplier	alloy	Copper (Cu)	7440-50-8		96.307	mg	950748	277542
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		2.265	mg	22360	6527
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.136	mg	1343	392
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.119	mg	1175	343
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		2.469	mg	24374	7115
Die attach	Other organic materials	2.083	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		1.604	mg	770043	4622
Die attach				supplier	glue or tape	Epoxy Cresol Novolak	29690-82-2		0.471	mg	226116	1357
Die attach				supplier	glue or tape	1-isopropyl-2,2-dimethyltrimethylene diisobu	6846-50-0		0.008	mg	3841	23
Bonding wire	Other inorganic materials	1.171	mg	supplier	wire	Gold (Au)	7440-57-5		1.171	mg	1000000	3375
encapsulation	Other organic materials	230.761	mg	supplier	mold compound	Silica, vitreous	60676-86-0		190.61	mg	826006	549308
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		23.076	mg	100000	66501
encapsulation				supplier	mold compound	Phenol resin	Proprietary		9.23	mg	39998	26599
encapsulation				supplier	mold compound	carbon black	1333-86-4		1.153	mg	4997	3323
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		1.846	mg	8000	5320
encapsulation				JIG I	mold compound	Brominated epoxy resin	68541-56-0		2.308	mg	10002	6651
encapsulation				supplier	mold compound	Bismuth (Bi)	7440-69-9		1.385	mg	6002	3991
encapsulation				supplier	mold compound	Zinc stearate	557-05-1		1.153	mg	4997	3323