



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 *	2013-05-10
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 *	Emilio Castelli	Representative Title	APG 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/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
L99SD01TR-E	ARVC*VH34ABY	A	MU1A	2013-05-10
	Amount	UoM	Unit type	ST ECOPACK Grade
	488.00	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	
Not Applicable ; if coating is used o	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	10.3x7.5x2.2	36	flat	
Comment				

Material Composition Declaration						Mfr Item Name	ARVC*VH34BY					
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	7.994	mg	supplier	die	Silicon (Si)	7440-21-3		7.671	mg	959595	15719
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.069	mg	8631	141
die (s)				supplier	metallization	Copper (Cu)	7440-50-8		0.069	mg	8631	141
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.029	mg	3628	59
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.029	mg	3628	59
die (s)				supplier	passivation	Indium Tin oxide (In2O3.SnO2)	50926-11-9		0.102	mg	12760	209
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	125	2
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	500	8
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.02	mg	2502	41
Leadframe	Copper & its alloys	225.944	mg	supplier	alloy	Copper (Cu)	7440-50-8		218.161	mg	96553	447051
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		5.131	mg	22709	10514
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.309	mg	1368	633
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.269	mg	1191	551
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		2.074	mg	9179	4250
Die attach		0.444	mg	supplier	glue or tape	Epoxy resin	na		0.178	mg	400901	365
Die attach				supplier	glue or tape	Polybutadiene polymer	25655-35-0		0.053	mg	119369	109
Die attach				supplier	glue or tape	maleic anhydride	108-31-6		0.004	mg	9009	8
Die attach				supplier	glue or tape	Silane	7803-62-5		0.013	mg	29279	27
Die attach				supplier	glue or tape	Tetrafluoroethylene	9002-84-0		0.196	mg	441441	402
Die attach 2		3.209	mg	JIG R	glue or tape	Lead (Pb)	7439-92-1	7a-Lead in high me	3.129	mg	975070	6412
Die attach 2				supplier	glue or tape	Silver (Ag)	7440-22-4		0.048	mg	14958	98
Die attach 2				supplier	glue or tape	Tin (Sn)	7440-31-5		0.032	mg	9972	66
Bonding wire		1.951		supplier	wire	Gold (Au)	7440-57-5		1.318	mg	675551	2701
Bonding wire				supplier	wire	Copper (Cu)	7440-50-8		0.628	mg	321886	1287
Bonding wire				supplier	wire	Palladium (Pd)	7440-05-3		0.004	mg	2050	8
Bonding wire				supplier	wire	Platinum (Pt)	7440-06-4		0.001	mg	513	2
encapsulation		245.727	mg	supplier	mold compound	Phenol Resin	205830-20-2		9.829	mg	40000	20141
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		7.372	mg	30001	15107
encapsulation				supplier	mold compound	epoxy resin	na		7.372	mg	30001	15107
encapsulation				supplier	mold compound	carbon black	1333-86-4		0.491	mg	1998	1006
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		220.663	mg	898001	452178
connections coating	Solder	2.73	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.73	mg	1000000	5594