



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 *	2013-08-21
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 *	Giuseppe Vitali Palma	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
	HZMH*L6AA37V	A	MU1A	2013-08-21
Amount	UoM	Unit type	ST ECOPACK Grade	
947.568	mg	Each	ECOPACK® 1	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
3	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy		
Not Applicable ; if coating is used o	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	18.49X8.89X2.692	37	gull wing	
Comment	Package:SO44.350 BATT Cu w/socket			

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
6c	Copper alloy containing up to 4 % lead by weight

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	H2MH*L6AA37V					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Silicon Die	Other inorganic materials	15.839	mg	Supplier	Silicon die	Silicon	7440-21-3		15.706	mg	998792	16575
				Supplier	Die passivation	SIN	68034-42-4		0.001	mg	56	1
						Gamma-butyrolactone	96-48-0		0.076	mg	4289	80
						Polyhydroxyamide	55295-98-2		0.034	mg	1919	36
						Alcoxysilane	Proprietary		0.002	mg	113	2
						Aryl Silicic Acid	Proprietary		0.001	mg	56	1
				Supplier	die metallization	Aluminium (Al)	7429-90-5		0.003	mg	191	3
Leadframe	Copper & Its alloys	252.43	mg	supplier	alloy	Copper (Cu)	7440-50-8		0.01	mg	636	11
						Titanium (Ti)	7440-32-6		0.006	mg	382	6
						Copper (Cu)	7440-50-8		245.738	mg	691986	259335
						Iron (Fe)	7439-89-6		6.157	mg	17338	6498
						Zinc (Zn)	7440-66-6		0.315	mg	887	332
						Iron Phosphide (FeP)	26508-33-8		0.22	mg	620	232
				supplier	coating	Silver (Ag)	7440-22-4		2.273	mg	6401	2399
Die Attach	Other Organic Materials	2.174	mg	supplier	glue	Silver (Ag)	7440-22-4		1.63	mg	749770	1720
						Epoxy Cresol Novolak	29690-82-2		0.54	mg	248390	570
						1-isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.004	mg	1840	4
Bonding wire	Other inorganic materials	1.059	mg	Supplier	Bonding wire	Gold (Au)	7440-57-5		1.059	mg	1000000	1118
Moulding Compound	Other Organic Materials	577.068	mg	supplier	Moulding Compound	Silica, vitreous	60676-86-0		458.932	mg	1000000	484326
						Epoxy Cresol Novolak	29690-82-2		41.348	mg	2333409	43636
						Phenol resin	9003-35-4		23.627	mg	1333352	24934
						Biphenyl epoxy resin	85954-11-6		35.441	mg	2000056	37402
						Carbon Black	1333-86-4		1.772	mg	100000	1870
				supplier	Antimony/Antimony Compounds	Antimony Trioxide	1309-64-4		7.088	mg	400000	7480
				JIG I	Brominated Flame Retardant (other than P	Brominated Epoxy Resin	40039-93-8		8.86	mg	500000	9350
Finishing	Other inorganic materials	12.446	mg	supplier	connection coating	Tin (Sn)	7440-31-5		12.446	mg	1000000	13135
Socket	Other inorganic materials	84.279	mg	supplier	Pin/Shell	Copper (Cu)	7440-50-8		42.291	mg	501126	44631
						Zinc (Zn)	7440-66-6	6c. Lead as an alloy	24.343	mg	288452	25690
				JIG R	Lead/Lead Compounds	Lead	7439-92-1		2.131	mg	25251	2249
				Supplier	Contact	Copper (Cu)	7440-50-8		14.037	mg	166331	14814
						Beryllium	7440-41-7		0.257	mg	3045	271
				Supplier	Contact Top Plate	Gold (Au)	7440-57-5		0.567	mg	6719	598
				Supplier	Contact underplate	Nickel	7440-02-0		0.653	mg	7738	689