



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 *	2013-09-03
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/web/en/support/online_tech_support.html		

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*M6AAZ58	A	MU1A	2013-09-03
Amount	UoM	Unit type	ST ECOPACK Grade	
978.00	mg	Each	ECOPACK® 1	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
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	18.49 - 8.89 - 2.692	28	gull wing	
Comment	Package: SO 28 BATTERY			

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-18 June 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	HZMH*M6AAZ58					
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	7.744	mg	supplier	die	Silicon (Si)	7440-21-3		7.551	mg	975077	7721
Silicon Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.03	mg	3874	31
Silicon Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.013	mg	1679	13
Silicon Die				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	387	3
Silicon Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.016	mg	2066	16
Silicon Die				supplier	passivation	Silicon Oxide (SiO2)	7631-86-9		0.078	mg	10072	80
Silicon Die				supplier	passivation	Gamma-butyrolactone	96-48-0		0.035	mg	4520	36
Silicon Die				supplier	passivation	Polyhydroxyamide	55295-98-2		0.016	mg	2066	16
Silicon Die				supplier	passivation	Alcoxysilane	proprietary		0.001	mg	129	1
Silicon Die				supplier	passivation	Aryl Siliclic Acid	proprietary		0.001	mg	129	1
Leadframe	Other inorganic materials	290.107	mg	supplier	Alloy	Copper (Cu)	7440-50-8		280.44	mg	966678	286748
Leadframe				supplier	Alloy	Iron (Fe)	7439-89-6		6.751	mg	23271	6903
Leadframe				supplier	Alloy	Zinc (Zn)	7440-66-6		0.345	mg	1189	353
Leadframe				supplier	Alloy	Iron Phosphide (FeP)	26508-33-8		0.242	mg	834	247
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		2.329	mg	8028	2381
Die attach	Other inorganic materials	1.122	mg	supplier	glue	Silver (Ag)	7440-22-4		0.864	mg	770053	883
Die attach				supplier	glue	Epoxy Cresol Novolak	29690-82-2		0.254	mg	226381	260
Die attach				supplier	glue	1-isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.004	mg	3565	4
Bonding wire	Precious metals	0.818	mg	supplier	wire	Gold (Au)	7440-57-5		0.818	mg	1000000	836
encapsulation	Other inorganic materials	586.235	mg	supplier	Moulding Compound	Silica, vitreous	60676-86-0		468.988	mg	800000	479538
encapsulation				supplier	Moulding Compound	Epoxy Cresol Novolak	29690-82-2		41.036	mg	69999	41959
encapsulation				supplier	Moulding Compound	Phenol resin	9003-35-4		23.449	mg	39999	23976
encapsulation				supplier	Moulding Compound	Biphenyl epoxy resin	85954-11-6		35.174	mg	60000	35965
encapsulation				supplier	Moulding Compound	Antimony Trioxide	1309-64-4		7.035	mg	12000	7193
encapsulation				JIG I	Moulding Compound	Brominated Epoxy Resin	40039-93-8		8.794	mg	15001	8992
encapsulation				supplier	Moulding Compound	Carbon Black	1333-86-4		1.759	mg	3001	1799
connections coating	Solder	7.695	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		7.695	mg	1000000	7868
Socket	Other inorganic materials	84.279	mg	supplier	Pin/Shell	Copper (Cu)	7440-50-8		42.291	mg	501798	43242
Socket				supplier	Pin/Shell	Zinc (Zn)	7440-66-6		24.343	mg	288838	24891
Socket				supplier	Lead/Lead Compounds	Lead	7439-92-1	6C. Lead as an alloy	2.131	mg	25285	2179
Socket				supplier	Contact	Beryllium Copper (BeCu)	11133-98-5		14.294	mg	169603	14616
Socket				supplier	Contact Top Plate	Gold (Au)	7440-57-5		0.567	mg	6728	580
Socket				supplier	Contact underplate	Nickel	7440-02-0		0.653	mg	7748	668