



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 *	2013-04-12
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 *	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
	S661*UA50BA5	A	ZY1A	2013-04-11
Amount	UoM	Unit type	ST ECOPACK Grade	
79.537	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	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
DSO	4.85X3.9X1.52	10	gull wing	
Comment	Package: HSOP 8L .150" PITCH 1.27 EXPOPAD			

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	S661*UA50BA5					
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	1.996	mg		DIE	Silicon (Si)	7440-21-3		1.976	mg	989980	24844
SILICON DIE					PASSIVATION	Gamma-butyrolactone	96-48-0		0.012	mg	6012	151
SILICON DIE					PASSIVATION	Polyhydroxyamide	55295-98-2		0.008	mg	4008	101
LEADFRAME	Copper & its alloys	32.069	mg		ALLOY	Copper (Cu)	7440-50-8		31.243	mg	974243	392811
LEADFRAME					ALLOY	Iron (Fe)	7439-89-6		0.77	mg	24011	9681
LEADFRAME					ALLOY	Zinc (Zn)	7440-66-6		0.043	mg	1341	541
LEADFRAME					ALLOY	Iron Phosphide(FeP)	26508-33-8		0.013	mg	405	163
LEADFRAME COATING		0.561	mg		COATING	Silver (Ag)	7440-22-4		0.561	mg	1000000	7053
DIE ATTACH	Other Organic Materials	0.649	mg		GLUE	Resin A	9003-36-5		0.045	mg	69337	566
DIE ATTACH					GLUE	Resin B	68475-94-5		0.026	mg	40062	327
DIE ATTACH					GLUE	Silver (Ag)	7440-22-4		0.5	mg	770416	6286
DIE ATTACH					GLUE	Lactone	96-48-0		0.026	mg	40062	327
DIE ATTACH					GLUE	Polyoxypropylenediamine	9046-10-0		0.026	mg	40062	327
DIE ATTACH					GLUE	2,6-Diglycidyl phenyl allyl ether oligomer	Proprietary		0.026	mg	40062	327
BONDING WIRE	Precious metals	0.22	mg		BONDING WIRE	Gold (Au)	7440-57-5		0.22	mg	1000000	2766
ENCAPSULATION	Other Organic Materials	42.052	mg		MOLDING COMPOUND	Multi-aromatic Resin	Proprietary		3.154	mg	75002	39655
ENCAPSULATION					MOLDING COMPOUND	Carbon Black	1333-86-4		0.21	mg	4994	2640
ENCAPSULATION					MOLDING COMPOUND	Silica Fused	60676-86-0		36.165	mg	860007	454694
ENCAPSULATION					MOLDING COMPOUND	Epoxy Cresol Novolac	29690-82-2		0.841	mg	19999	10574
ENCAPSULATION					MOLDING COMPOUND	Phenol Resin	Proprietary		1.682	mg	39998	21147
FINISHING	Other inorganic materials	1.99	mg		CONNECTION COATING	Tin (Sn)	7440-31-5		1.99	mg	1000000	25020