



## Materials Declaration Form

<b>IPC Form Type *</b>	1752 Distribute	<b>Version</b>	2
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D  *: Required Field

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2014-03-26
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	Refer to "Supplier Comment" section
<b>Contact Phone *</b>	Refer to "Supplier Comment" section	<b>Contact Email *</b>	Refer to "Supplier Comment" section
<b>Authorized Representative *</b>	Antonella Lanzafame	<b>Representative Title</b>	AMS & IPD Materials Declaration Champion
<b>Representative Phone *</b>	Refer to "Supplier Comment" section	<b>Representative Email *</b>	Refer to "Supplier Comment" section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/internet/com/support/online_tech_support.jsp">http://www.st.com/internet/com/support/online_tech_support.jsp</a>		

**Uncertainty Statement**


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Legal Statement			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	Standard

**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
	MBYM*UQ85BB5	A	ZS1A	2014-03-26
Amount	UoM	Unit type	ST ECOPACK Grade	
95.00	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	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	9.7X4.4X0.9	28	gull wing	
Comment	TSSOP 28 BODY 4.4 PITCH 0.65; MD valid for CP:ST8024LCTR.			

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-16th December 2013				
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	MBYM*UQ85B85					
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	1.924	mg	supplier	Die	Silicon (Si)	7440-21-3		1.838	mg	955301	19347
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.019	mg	9875	200
Silicon die				supplier	metallization	Tungsten (W)	7440-33-7		0.015	mg	7796	158
Silicon die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.004	mg	2079	42
Silicon die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.032	mg	16632	337
Silicon die				supplier	passivation	Gamma-butyrolactone	96-48-0		0.011	mg	5717	116
Silicon die				supplier	passivation	Polyhydroxyamide	55295-98-2		0.005	mg	2599	53
LEADFRAME	Copper and its alloy	41.004	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		38.446	mg	937616	404695
LEADFRAME			mg	supplier	ALLOY	Nickel (Ni)	7440-02-0		1.199	mg	29241	12621
LEADFRAME			mg	supplier	ALLOY	Silicon (Si)	7440-21-3		0.26	mg	6341	2737
LEADFRAME			mg	supplier	ALLOY	Magnesium (Mg)	7439-95-4		0.06	mg	1463	632
LEADFRAME			mg	supplier	COATING	Silver(Ag)	7440-22-4		1.039	mg	25339	10937
DIE ATTACH	Other organic materials	46.173	mg	supplier	GLUE	Epoxy resin A	9003-36-5		0.001	mg	111111	11
DIE ATTACH			mg	supplier	GLUE	Silver(Ag)	7440-22-4		0.008	mg	888889	84
BONDING WIRE	Other inorganic materials	0.457	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.457	mg	1000000	4811
ENCAPSULATION	Other inorganic materials	48.884	mg	supplier	MOLDING COMPOUND	Epoxy Resin	Trade secret		4.399	mg	89989	46305
ENCAPSULATION			mg	supplier	MOLDING COMPOUND	Silica fused (SiO2)	60676-86-0		41.063	mg	840009	432242
ENCAPSULATION			mg	supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		0.245	mg	5012	2579
ENCAPSULATION			mg	supplier	MOLDING COMPOUND	Phenol Resin	Trade secret		3.177	mg	64991	33442
FINISHING	Other inorganic materials	2.722	mg	supplier	CONNECTION COATING	Tin (Sn)	7440-31-5		2.722	mg	1000000	28653