



## 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  <i>* : Required Field</i>

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2012-12-10
<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>	Giovanni Giacobello	<b>Representative Title</b>	IPD & AMS MD 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
LM224PT	HD6R*0124BH6	A	BO2A	2012-12-10
Amount	UoM	Unit type	ST ECOPACK Grade	
53.50	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	1X4.40X5	14	gull wing	
Comment	Package: TSSOP 14 BODY 4.4 PITCH 0.65			

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-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	HD6R*0124BH6					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	1.292	mg	supplier	die	Silicon (Si)	7440-21-3		1.269	mg	982198	23720
				supplier	metallization	Aluminium (Al)	7429-90-5		0.011	mg	8514	206
				supplier	Passivation	Silicon Nitride	12033-89-5		0.005	mg	3870	93
				supplier	Passivation	Silicon Oxide	7631-86-9		0.007	mg	5418	131
				supplier	alloy	Copper(CU)	7440-50-8		23.096	mg	988826	431701
Leadframe	Copper & its alloys	23.357	mg	supplier	alloy	Iron(Fe)	7439-89-6		0.023	mg	985	430
				supplier	alloy	Iron Phosphide(FeP)	26508-33-8		0.007	mg	300	131
				supplier	metallization	Nickel (Ni)	7440-02-0		0.211	mg	9034	3944
				supplier	metallization	Palladium (Pd)	7440-05-3		0.014	mg	599	262
				supplier	metallization	Gold (Au)	7440-57-5		0.006	mg	257	112
Die attach	Other inorganic materials	0.428	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		0.342	mg	799065	6393
				supplier	glue or tape	2,6-Diglycidylphenyl allyl ether	13561-08-5		0.064	mg	149533	1196
				supplier	glue or tape	1,4-bis (2,3-epoxypropoxy) butane	2425-79-8		0.009	mg	21028	168
				supplier	glue or tape	Polyoxypropylenediamine	9046-10-0		0.013	mg	30374	243
Bonding wire	Other inorganic materials	0.085	mg	supplier	wire	Copper (Cu)	7440-50-8		0.085	mg	1000000	1589
encapsulation	Other inorganic materials	28.338	mg	supplier	mold compound	Silica, vitreous	60676-86-0		25.136	mg	887007	469832
				supplier	mold compound	epoxy resin	25068-38-6		2.267	mg	79999	42374
				supplier	mold compound	Phenol resin	26834-02-6		0.85	mg	29995	15888
				supplier	mold compound	carbon black	1333-86-4		0.085	mg	3000	1589