



## 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>	21-02-2013
<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>	Arcidiacono Salvatore	<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
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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
LD1117DT50TR	HZGR*KS05AAW	A	SH1A	21-02-2013
Amount	UoM	Unit type	ST ECOPACK Grade	
310.00	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		
Not Applicable ; if coating is used o	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	6.50-6.10-2.30	2	gull wing	
Comment				

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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

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	HZGR*KS05AAW					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	2.374	mg	supplier	die	Silicon (Si)	7440-21-3		2.372	mg	999158	7652
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.002	mg	842	6
Leadframe	Copper & its alloys	109.682	mg	supplier	alloy	Copper (Cu)	7440-50-8		109.539	mg	998696	353352
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.055	mg	501	177
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.088	mg	802	284
Die attach	Other inorganic materials	2.237	mg	JIG R	glue or tape	Lead (Pb)	7439-92-1		2.136	mg	954850	6890
Die attach				supplier	glue or tape	Silver (Ag)	7440-22-4		0.056	mg	25034	181
Die attach				supplier	glue or tape	Tin (Sn)	7440-31-5		0.045	mg	20116	145
Bonding wire	Other inorganic materials	0.122	mg	supplier	wire	Copper (Cu)	7440-50-8		0.122	mg	1000000	394
encapsulation	Other inorganic materials	194.845	mg	supplier	mold compound	Epoxy Resin	Proprietary		5.845	mg	29998	18855
encapsulation				supplier	mold compound	2,2'-((3,3',5,5'-tetramethyl-(1,1'-biphenyl))-4,4'	EC 413-900-7		7.794	mg	40001	25142
encapsulation				supplier	mold compound	phenol resin	Proprietary		9.742	mg	49999	31426
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		170.49	mg	875003	549968
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.974	mg	4999	3142
connections coating	Solder	0.74	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.74	mg	1000000	2387