



## 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>	2012-11-07
<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
	HSVZ*K806TTI	A	SH1A	2012-11-07
Amount	UoM	Unit type	ST ECOPACK Grade	
1900.00	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
NAC	NAC	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	
SIP	10.2,15.5,4.5	3	Through-hole	
Comment	TO 220 (CB415) ISOL; MD valid for CP: STTH806TTI.			

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-20th June 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	HSVZ*K806TTI					
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	16.18	mg	supplier	die	Silicon (Si)	7440-21-3		15.871	mg	980902	8353
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.168	mg	10383	88
die (s)				supplier	passivation	Gamma-butyrolactone	96-48-0		0.047	mg	2905	25
die (s)				supplier	passivation	Polyhydroxyamide	55295-98-2		0.021	mg	1298	11
die (s)				supplier	passivation	Alcoxysilane	proprietary		0.001	mg	62	1
die (s)				supplier	passivation	Aryl Silicic Acid	proprietary		0.001	mg	62	1
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	247	2
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.012	mg	742	6
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.055	mg	3399	29
Leadframe	Copper & its alloys	1624.781	mg	supplier	alloy	Copper (Cu)	7440-50-8		1606.564	mg	988788	845560
Leadframe				supplier	alloy	CopperPhosphorous (CuP)	12517-41-8		3.229	mg	1987	1699
Leadframe				supplier	alloy	Cobalt (Co)	7440-48-4		4.52	mg	2782	2379
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		10.468	mg	6443	5509
Soft solder	Solder	17.326	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	16.027	mg	925026	8435
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.866	mg	49983	456
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.433	mg	24991	228
Bonding wire	Other inorganic materials	2.463	mg	supplier	wire	Aluminium (Al)	7429-90-5		2.364	mg	1000000	1244
encapsulation	Other Organic Materials	134.875	mg	supplier	mold compound	Silica, vitreous	60676-86-0		100.077	mg	741998	52672
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		6.744	mg	50002	3549
encapsulation				supplier	mold compound	Carbon black	1333-86-4		1.079	mg	8000	568
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		14.836	mg	109998	7808
encapsulation				supplier	mold compound	Others	Proprietary		12.139	mg	90002	6389
connections coating	Solder	6.314	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.314	mg	1000000	3323
subelement		98.16	mg	R	Ceramic isolator	Alumina (Al2O3)	1344-28-1		96.354	mg	981601	50713
subelement				supplier	Ceramic isolator	Nickel (Ni)	7440-02-0		1.178	mg	12001	620
subelement				supplier	Ceramic isolator	Gold (Au)	7440-57-5		0.628	mg	6398	331