



## 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>	2014-02-21
<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>	Emilio Castelli	<b>Representative Title</b>	APG 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/web/en/support/online_tech_support.html">http://www.st.com/web/en/support/online_tech_support.html</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
VN5E016AFHTR-E	AS95*VNR8ABC	A	SH1A	2014-02-21
	Amount	UoM	Unit type	ST ECOPACK Grade
	290.00	mg	Each	ECOPACK® 1

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	
NAC	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	6.5x6.1x2.3	6	flat	
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)	true
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	AS95*VNR8ABC					
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	6.396	mg	supplier	die	Silicon (Si)	7440-21-3		6.100	mg	953721	21034
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.135	mg	21107	466
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.029	mg	4534	100
die (s)				supplier	passivation	Indium Tin oxide ( In2O3:SnO2 )	50926-11-9		0.078	mg	12195	269
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	469	10
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.009	mg	1407	31
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.042	mg	6567	145
Leadframe	Copper & its alloys	197.302	mg	supplier	alloy	Copper (Cu)	7440-50-8		196.640	mg	996645	678069
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.091	mg	461	314
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.165	mg	836	569
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.137	mg	694	472
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		0.269	mg	1363	928
Die attach		4.835	mg	JIG Table A	glue or tape	Lead (Pb)	7439-92-1	7a-Lead in high me	4.617	mg	954912	15921
Die attach				supplier	glue or tape	Silver (Ag)	7440-22-4		0.121	mg	25026	417
Die attach				supplier	glue or tape	Tin (Sn)	7440-31-5		0.097	mg	20062	334
Bonding wire		1.039		supplier	wire	Gold (Au)	7440-57-5		0.136	mg	130895	469
Bonding wire				supplier	wire	Aluminium (Al)	7429-90-5		0.903	mg	869105	3114
encapsulation		76.168	mg	supplier	mold compound	Silica, vitreous	60676-86-0		60.935	mg	800008	210121
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		5.332	mg	70003	18386
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		3.046	mg	39991	10503
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		4.570	mg	59999	15759
encapsulation				JIG Table B	mold compound	Antimony Trioxide	1309-64-4		0.914	mg	12000	3152
encapsulation				JIG Table B	mold compound	Brominated Epoxy Resin	40039-93-8		1.142	mg	14993	3938
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.229	mg	3007	790
connections coating	Solder	4.259	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.259	mg	1000000	14686