



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2014-12-17
Contact Name *	Refer to "Supplier Comment" section	Contact Title	Refer to "Supplier Comment" section
Contact Phone *	Refer to "Supplier Comment" section	Contact Email *	Refer to "Supplier Comment" section
Authorized Representative *	Emilio Castelli	Representative Title	APG MD CHAMPION
Representative Phone *	Refer to "Supplier Comment" section	Representative Email *	Refer to "Supplier Comment" section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

Uncertainty Statement

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Legal Statement

Supplier Acceptance *	true	Legal Declaration *	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
VN5E016MHTR-E	AS95*VNV2AAC	A	SH1A	2014-12-17
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	2.3x6.5x6.1	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 '7a' 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 June 2014				
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*VVV2AAC					
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	6.498	mg	supplier	die	Silicon (Si)	7440-21-3		6.100	mg	938750	21034
Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.159	mg	24469	548
Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.029	mg	4463	100
Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.078	mg	12004	269
Die				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	462	10
Die				supplier	back side metallization	Gold (Au)	7440-57-5		0.009	mg	1385	31
Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.042	mg	6464	145
Die				supplier	glass coating	Glass: Silicon Dioxide (SiO2)	7631-86-9		0.078	mg	12004	269
Leadframe	Copper & its alloys	197.538	mg	supplier	alloy	Copper (Cu)	7440-50-8		196.875	mg	996644	678879
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.091	mg	461	314
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.166	mg	840	572
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.137	mg	694	472
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		0.269	mg	1362	928
Die attach		4.835	mg	JIG - R	Soft Solder	Lead (Pb)	7439-92-1	7a-Lead in high me	4.617	mg	954912	15921
Die attach				supplier	Soft Solder	Silver (Ag)	7440-22-4		0.121	mg	25026	417
Die attach				supplier	Soft Solder	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		75.831	mg	supplier	mold compound	Silica, vitreous	60676-86-0		60.664	mg	799989	209186
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		5.308	mg	69998	18303
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		3.033	mg	39997	10459
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		4.550	mg	60002	15690
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		0.910	mg	12000	3138
encapsulation				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		1.138	mg	15007	3924
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.228	mg	3007	786
connections coating	Solder	4.259	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.259	mg	1000000	14686