




## 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>	2016-08-09
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Rossana Bonaccorso	<b>Representative Title</b>	ADG 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/support.html">http://www.st.com/web/en/support/support.html</a>		

Uncertainty Statement			
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Legal Statement			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	Standard
<b>Legal Statement</b>	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
VND5012AK-E	ARV5*VNF8BIC	A	MUAR B/E	2016-08-09
	Amount	UoM	Unit type	ST ECOPACK Grade
	470.00	mg	Each	ECOPACK2

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	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	10.3-7.5-2.28	24	FLAT	
Comment	PowerSSO24			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	false
2 - 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
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	true
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
5 - Product(s) is obsolete, no information is available	false
6 - 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 2016				
Query				Response
1 - Product(s) 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	ARV5*VNF8BIC					
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	12.662	mg	supplier	die	Silicon (Si)	7440-21-3		11.721	mg	925683	24938
				supplier	metallization	Titanium (Ti)	7440-32-6		0.389	mg	30722	828
				supplier	Passivation	Silicon Nitride	12033-89-5		0.070	mg	5528	149
				supplier	Passivation	Silicon Oxide	7631-86-9		0.191	mg	15085	406
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.007	mg	553	15
				supplier	back side metallization	Gold (Au)	7440-57-5		0.022	mg	1737	47
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.102	mg	8056	217
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.160	mg	12636	340
				supplier	alloy	Copper (Cu)	7440-50-8		158.357	mg	962428	336930
Leadframe	Copper & its alloys	164.539	mg	supplier	alloy	Iron (Fe)	7439-89-6		3.725	mg	22639	7926
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.224	mg	1362	477
				supplier	alloy	Zinc (Zn)	7440-66-6		0.195	mg	1185	415
				supplier	metallization	Silver (Ag)	7440-22-4		2.038	mg	12386	4336
				supplier	metallization	Lead (Pb)	7439-92-1	7a-Lead in high mel	13.443	mg	974978	28602
Soft solder	Solder	13.788	mg	JIG - R	solder	Silver (Ag)	7440-22-4		0.207	mg	15013	440
				supplier	solder	Tin (Sn)	7440-31-5		0.138	mg	10009	294
				supplier	wire	Gold (Au)	7440-57-5		1.119	mg	760707	2381
Bonding wires	Other inorganic materials	1.471	mg	supplier	wire	Copper (Cu)	7440-50-8		0.352	mg	239293	749
				supplier	mold compound	silica vitreous	60676-86-0		240.294	mg	878001	511264
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		16.421	mg	60000	34938
				supplier	mold compound	Phenol Resin	205830-20-2		10.947	mg	39999	23291
Encapsulation	Other Organic Materials	273.683	mg	supplier	mold compound	epoxy resin	25068-38-6		5.474	mg	20001	11647
				supplier	mold compound	carbon black	1333-86-4		0.547	mg	1999	1164
				supplier	solder alloy	Tin (Sn)	7440-31-5		3.857	mg	1000000	8206
Connections coating	Solder	3.857	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		3.857	mg	1000000	8206