



## 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>	2016-01-27
<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
VND830P-E	ARY7*VNF1X3A	A	MU1A	2016-01-27
Amount		UoM	Unit type	ST ECOPACK Grade
400.00		mg	Each	ECOPACK® 1

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
3	250	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	7.5x10.3x2.5	16	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	ARY7*VNF1X3A					
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	8.501	mg	supplier	die	Silicon (Si)	7440-21-3		8.312	mg	977767	20780
Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.059	mg	6940	148
Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.057	mg	6705	143
Die				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	471	10
Die				supplier	back side metallization	Gold (Au)	7440-57-5		0.012	mg	1412	30
Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.057	mg	6705	143
Leadframe	Copper & its alloys	134.448	mg	supplier	alloy	Copper (Cu)	7440-50-8		128.478	mg	955596	321195
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		3.022	mg	22477	7555
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.182	mg	1354	455
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.158	mg	1175	395
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		2.608	mg	19398	6520
Die attach		6.227	mg	JIG - R	Soft Solder	Lead (Pb)	7439-92-1	7a-Lead in high me	6.072	mg	975108	15180
Die attach				supplier	Soft Solder	Silver (Ag)	7440-22-4		0.093	mg	14935	233
Die attach				supplier	Soft Solder	Tin (Sn)	7440-31-5		0.062	mg	9957	155
Bonding wire				supplier	wire	Copper (Cu)	7440-50-8		0.834	mg	1000000	2085
encapsulation		245.616	mg	supplier	mold compound	Silica, vitreous	60676-86-0		196.493	mg	800001	491233
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		17.193	mg	70000	42983
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		9.825	mg	40001	24563
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		14.737	mg	60000	36843
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		2.947	mg	11998	7368
encapsulation				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		3.684	mg	14999	9210
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.737	mg	3001	1843
connections coating	Solder	4.375	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.375	mg	1000000	10938