



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 *	2016-02-26
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/online_tech_support.html		

Uncertainty Statement


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Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	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
VNL5090N3TR-E	FTLL*VNY9BAC	A	Z8GA	2016-02-26
	Amount	UoM	Unit type	ST ECOPACK Grade
	110.00	mg	Each	ECOPACK® 2

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	
SOT	3.5x6.5x1.7	4	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-17th Dec 2015				
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	FTLL*VNY9BAC					
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	1.712	mg	supplier	die	Silicon (Si)	7440-21-3		1.621	mg	946846	14736
Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.045	mg	26285	409
Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.008	mg	4673	73
Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.022	mg	12850	200
Die				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	584	9
Die				supplier	back side metallization	Gold (Au)	7440-57-5		0.003	mg	1752	27
Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.012	mg	7009	109
Leadframe	Copper and its alloy	57.780	mg	Supplier	Alloy	Copper(CU)	7440-50-8		57.003	mg	986552	518209
Leadframe				Supplier	Alloy	Iron(Fe)	7439-89-6		0.057	mg	987	518
Leadframe				Supplier	Alloy	Phosphorus(P)	7723-14-0		0.017	mg	294	155
Leadframe				Supplier	Alloy	Silver(Ag)	7440-22-4		0.703	mg	12167	6391
Die Attach	Other Organic Material	1.501	mg	Supplier	Soft Solder	Silver(Ag)	7440-22-4		0.038	mg	25316	345
Die Attach				Supplier	Soft Solder	Tin(Sn)	7440-31-5		0.030	mg	19987	273
Die Attach				Supplier	Soft Solder	Lead(Pb)	7439-92-1	7a-Lead in high me	1.433	mg	954697	13027
Bonding wire	Other Inorganic Material	0.298	mg	Supplier	Bonding wire	Gold(Au)	7440-57-5		0.298	mg	1000000	2709
Encapsulation	Other Organic Material	47.683	mg	Supplier	Molding compound	Silica Fused	60676-86-0		41.962	mg	880020	381473
Encapsulation				Supplier	Molding compound	Epoxy,Cresol Novolac	29690-82-2		0.715	mg	14995	6500
Encapsulation				Supplier	Molding compound	Phenol Resin	NA		2.384	mg	49997	21673
Encapsulation				Supplier	Molding compound	Epoxy Resin	NA		2.384	mg	49997	21673
Encapsulation				Supplier	Molding compound	Carbon Black	1333-86-4		0.238	mg	4991	2164
Finishing	Other Inorganic Material	1.043	mg	Supplier	Connection Coating	Tin(Sn)	7440-31-5		1.043	mg	1000000	9482