



## Materials Declaration Form

<b>IPC Form Type *</b>	1752 Distribute	<b>Version</b>	2
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Sectionals *</b>	A-D  * : Required Field

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-11-27
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Floriana SAN BIAGIO	<b>Representative Title</b>	AMS 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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<b>Legal Statement</b>			
<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
	9RJG*MV54BC6	A	Z8GA	2018-11-27
Amount	UoM	Unit type	ST ECOPACK Grade	
471.00	mg	Each	ECOPACK® 2	
	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant ( in each organic material)		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
N/A	N/A	NAC		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DIP	9.05x6.4x3.32	7	Through-hole	
Comment	JG PDIP 7 - MDIP .25; MDF valid for VIPER28LN			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	<b>true</b>
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)	false
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Exemption Id.	Description

QueryList : REACH-27th June 2018				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				<b>true</b>
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	9RJG*MV54BC6					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	Other Inorganic materials	5.374	mg	supplier	die	Silicon (Si)	7440-21-3		5.292	mg	984741	11236
				supplier	metallization	Aluminium (Al)	7429-90-5		0.010	mg	1861	21
				supplier	metallization	Tungsten (W)	7440-33-7		0.008	mg	1489	17
				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	372	4
				supplier	Passivation	Silicon Oxide	7631-86-9		0.017	mg	3163	36
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	372	4
				supplier	back side metallization	Gold (Au)	7440-57-5		0.006	mg	1116	13
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.027	mg	5024	57
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.010	mg	1861	21
				Leadframe	Copper & its alloys	148.184	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						3.506	mg	23660	7444
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.123	mg	830	261
supplier	alloy	Zinc (Zn)	7440-66-6						0.180	mg	1215	382
supplier	metallization	Silver (Ag)	7440-22-4						0.706	mg	4764	1499
Die attach	Other Organic Materials	5.429	mg	supplier	glue	Silver (Ag)	7440-22-4		4.347	mg	800700	9229
				supplier	glue	2,6-Diglycidylphenyl allyl ether	13561-08-5		0.811	mg	149383	1722
				supplier	glue	1,4-bis (2,3-epoxypropoxy) butane	2425-79-8		0.108	mg	19893	229
				supplier	glue	Polyoxypropylenediamine	9046-10-0		0.163	mg	30024	346
Bonding wires	Precious metals	0.170	mg	supplier	wire	Gold (Au)	7440-57-5		0.170	mg	1000000	361
Encapsulation	Other Organic Materials	307.469	mg	supplier	mold compound	Silica, vitreous	60676-86-0		267.500	mg	870006	567941
				supplier	mold compound	Epoxy resin	25068-38-6		30.753	mg	100020	65293
				supplier	mold compound	Phenol resin	29690-82-2		7.713	mg	25085	16376
				supplier	mold compound	Carbon Black	1333-86-4		1.503	mg	4888	3191
connections coating	Solder	4.374	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.374	mg	1000000	9287