



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 *	2018-03-07
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Floriana SAN BIAGIO	Representative Title	AMS 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


While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

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
	F9JG*MV61BE6	A	Z8GA	2018-03-07
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 fo r VIPER16HN			

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	true
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-15th January 2018				
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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	F9JG*MV61BE6					
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	3.579	mg	supplier	die	Silicon (Si)	7440-21-3		3.513	mg	981559	7459
				supplier	metallization	Aluminium (Al)	7429-90-5		0.010	mg	2794	21
				supplier	metallization	Tungsten (W)	7440-33-7		0.008	mg	2235	17
				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	559	4
				supplier	Passivation	Silicon Oxide	7631-86-9		0.017	mg	4750	36
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	279	2
				supplier	back side metallization	Gold (Au)	7440-57-5		0.003	mg	838	6
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.015	mg	4191	32
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.010	mg	2794	21
				Leadframe	Copper & its alloys	150.257	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						3.506	mg	23333	7444
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.126	mg	839	268
supplier	alloy	Zinc (Zn)	7440-66-6						0.180	mg	1198	382
supplier	metallization	Silver (Ag)	7440-22-4						0.776	mg	5164	1648
Die attach	Other Organic Materials	5.433	mg	supplier	glue	Silver (Ag)	7440-22-4		4.347	mg	800110	9229
				supplier	glue	2,6-Diglycidylphenyl allyl ether	13561-08-5		0.815	mg	150009	1730
				supplier	glue	1,4-bis (2,3-epoxypropoxy) butane	2425-79-8		0.108	mg	19879	229
				supplier	glue	Polyoxypropylenediamine	9046-10-0		0.163	mg	30002	346
Bonding wires	Precious metals	0.170	mg	supplier	wire	Gold (Au)	7440-57-5		0.170	mg	1000000	361
Encapsulation	Other Organic Materials	307.187	mg	supplier	mold compound	Silica, vitreous	60676-86-0		265.281	mg	863581	563229
				supplier	mold compound	Epoxy resin	25068-38-6		32.650	mg	106287	69321
				supplier	mold compound	Phenol resin	29690-82-2		7.713	mg	25108	16376
				supplier	mold compound	Carbon Black	1333-86-4		1.543	mg	5023	3276
connections coating	Solder	4.374	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.374	mg	1000000	9287