



## 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*

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-05-08
<b>Contact Name *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Authorized Representative *</b>	Rossana Bonaccorso
<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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<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
	FOEG*V839BDF	A	ZY1A	2018-05-08
Amount	UoM	Unit type	ST ECOPACK Grade	
135	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	
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy		
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
MLF	7 - 7 - 0.85	56	Flat	
Comment	Package: VFQFPN 7X7X1.0 56L PITCH 0.4 - MDF valid for CPs: STA8089FGB and STA8089FGBTR			

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 : California Prop65 list, dated 15th December 2017			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.001	Die	7

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	FOEG*V8398DF									
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Dies	M-011 Other inorganic materials	7.999	mg	supplier	die	Silicon (Si)	7440-21-3		7.419	mg	927491	54956				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.112	mg	14002	830				
				supplier	metallization	Copper (Cu)	7440-50-8		0.179	mg	22378	1326				
				supplier	passivation	Nickel (Ni)	7440-02-0		0.001	mg	125	7				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.029	mg	3625	215				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.008	mg	1000	59				
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	125	7				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.051	mg	6376	378				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.155	mg	19377	1148				
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.044	mg	5501	324				
				Leadframe	Copper and its alloy	74.519	mg	supplier	alloy	Copper (Cu)	7440-50-8		71.423	mg	958454	529059
								supplier	alloy	Iron (Fe)	7439-89-6		1.759	mg	23605	13030
								supplier	alloy	Zinc (Zn)	7440-66-6		0.088	mg	1180	652
supplier	alloy	Metallic Phosphorous (P)	7723-14-0						0.022	mg	295	163				
supplier	metallization	Silver (Ag)	7440-22-4						1.227	mg	16466	9089				
Die attach	Other organic materials	1.265	mg					supplier	glue	Silver	7440-22-4		1.075	mg	849802	7963
								supplier	glue	Bisphenol F type liquid epoxy resin	9003-36-5		0.076	mg	60079	563
				supplier	glue	Epoxy resin	25068-38-6		0.071	mg	56126	526				
				supplier	glue	P-Tertbutyl(phenyl glycidyl ether	3101-60-8		0.038	mg	30040	281				
				supplier	glue	dicyandiamide	461-58-5		0.005	mg	3953	37				
Die attach 2	Other organic materials	0.201	mg	supplier	glue	Silicon dioxide	7631-86-9		0.111	mg	552239	822				
				supplier	glue	Butadiene, acrylonitrile polymer, carboxy-terminated, polymer w	68610-41-3		0.048	mg	238805	356				
				supplier	glue	Poly[oxy(2-oxiranyl)-1,2-cyclohexanedyl], a-hydro-w-hydroxy-	244772-00-7		0.014	mg	69652	104				
				supplier	glue	Phenol-formaldehyde polymer	9003-35-4		0.014	mg	69652	104				
				supplier	glue	Epoxy resin	25068-38-6		0.014	mg	69652	104				
Bonding wires	Other inorganic materials	0.133	mg	supplier	wire	Gold (Au)	7440-57-5		0.132	mg	992481	978				
				supplier	wire	Palladium (Pd)	7440-05-3		0.001	mg	7519	7				
Encapsulation	Other inorganic materials	50.455	mg	supplier	mold compound	Epoxy Resin A	Proprietary		1.514	mg	30007	11215				
				supplier	mold compound	Epoxy Resin B	85954-11-6		2.018	mg	39996	14948				
				supplier	mold compound	Phenol Resin	29690-82-2		2.775	mg	55000	20556				
				supplier	mold compound	Silica Amorphous A	60676-86-0		37.841	mg	749995	280304				
				supplier	mold compound	Silica Amorphous B	7631-86-9		4.541	mg	90001	33637				
				supplier	mold compound	Aluminium and its compounds	21645-51-2		1.514	mg	30007	11215				
Finishing	Other organic materials	0.428	mg	supplier	mold compound	Carbon Black	1333-86-4		0.252	mg	4994	1867				
				supplier	solder alloy	Tin (Sn)	7440-31-5		0.428	mg	1000000	3170				