



## 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  <i>* : Required Field</i>

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-03-07
<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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### Legal Statement

<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	Standard
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**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
	ANEG*F171BBV	A	CA2A	2018-03-07
Amount	UoM	Unit type	ST ECOPACK Grade	
135.00	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
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	7x7x1	56	No lead	
Comment	A0EG VFQFPN 7X7X1.0 56L PITCH 0.4; MDF valdi for ST8500			

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	ANEG*F171BBV									
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	5.558	mg	supplier	die	Silicon (Si)	7440-21-3		5.281	mg	950162	39119				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.031	mg	5578	230				
				supplier	metallization	Copper (Cu)	7440-50-8		0.091	mg	16373	674				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.016	mg	2879	119				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	720	30				
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	180	7				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.022	mg	3958	163				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.112	mg	20151	830				
				Leadframe	Copper & its alloys	23.981	mg	supplier	alloy	Copper (Cu)	7440-50-8		23.875	mg	995580	176852
								supplier	alloy	Iron (Fe)	7439-89-6		0.011	mg	459	81
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.020	mg	834	148				
supplier	metallization	Nickel (Ni)	7440-02-0						0.069	mg	2877	511				
supplier	metallization	Palladium (Pd)	7440-05-3						0.004	mg	167	30				
supplier	metallization	Gold (Au)	7440-57-5						0.002	mg	83	15				
Die attach	Other Organic Materials	1.606	mg					supplier	glue	Silver (Ag)	7440-22-4		1.285	mg	800125	9519
								supplier	glue	Bisphenol F type epoxy resin	9003-36-5		0.129	mg	80324	956
								supplier	glue	Epoxy resin	68475-94-5		0.048	mg	29888	356
								supplier	glue	2,6-Diglycidyl phenyl allyl ether	EC 417-470-1		0.048	mg	29888	356
				supplier	glue	Gamma Butyrolactone	96-48-0		0.048	mg	29888	356				
				supplier	glue	Polyoxypropylenediamine	9046-10-0		0.048	mg	29888	356				
				Bonding wires	Precious metals	0.429	mg	supplier	wire	Gold (Au)	7440-57-5		0.425	mg	990676	3148
								supplier	wire	Palladium (Pd)	7440-05-3		0.004	mg	9324	30
				Encapsulation	Other Organic Materials	102.903	mg	supplier	mold compound	silica vitreous	60676-86-0		90.555	mg	880003	670778
								supplier	mold compound	Biphenyl epoxy resin	85954-11-6		5.145	mg	49999	38111
supplier	mold compound	Phenolic resin	205830-20-2						4.013	mg	38998	29726				
supplier	mold compound	Epoxy resin	29690-82-2						2.058	mg	19999	15244				
supplier	mold compound	carbon black	1333-86-4						0.206	mg	2002	1526				
supplier	mold compound	other	Proprietary						0.926	mg	8999	6859				
connections coating	Solder	0.523	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.523	mg	1000000	3874				