



## 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*

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-09-17
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	Refer to "Supplier Comment" section
<b>Contact Phone *</b>	Refer to "Supplier Comment" section	<b>Contact Email *</b>	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/online_tech_support.html">http://www.st.com/web/en/support/online_tech_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
	FZW1*46VBAS3	B	Z6FA	2018-09-17
Amount	UoM	Unit type	ST ECOPACK Grade	
9.56	mg	Each	ECOPACK® 3	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Alloy 42		

Package Designator	Size	Nbr of instances	Shape	
SOT	2.92X1.3X1	4	gull wing	
Comment	Package: SOT 143 - 4L; MDF valid for STM811SW16F			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 2015	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
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
Exemption Id.	Description

QueryList : REACH-27th June 2018				
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	FZW1*46VBAS3					
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	0.390	mg	Supplier	Silicon Die	Si	7440-21-3		0.376	mg	964103	39331
Die				Supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	5128	209
Die				Supplier	metallization	Copper (Cu)	7440-50-8		0.002	mg	5128	209
Die				Supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	2564	105
Die				Supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.001	mg	2564	105
Die				Supplier	passivation	Indium Tin oxide ( In2O3:SnO2 )	50926-11-9		0.004	mg	10256	418
Die				Supplier	passivation	Gamma-butyrolactone	96-48-0		0.003	mg	7692	314
Die				Supplier	passivation	Polyhydroxyamide	55295-98-2		0.001	mg	2564	105
Leadframe	Other Organic Materials	2.301	mg	Supplier	Alloy	Iron (Fe)	7439-89-6		1.327	mg	576706	138808
Leadframe				Supplier	Alloy	Nickel (Ni)	7440-02-0		0.947	mg	411560	99059
Leadframe				Supplier	Alloy	Manganese (Mn)	7439-96-5		0.018	mg	7823	1883
Leadframe				Supplier	Alloy	Silicon (Si)	7440-21-3		0.007	mg	3042	722
Leadframe				Supplier	Alloy	Carbon ( C )	7440-44-0		0.001	mg	435	105
Leadframe				Supplier	Alloy	Phosphorus (P)	12185-10-3		0.001	mg	435	105
Die Attach	Other Organic Materials	0.130	mg	Supplier	Glue	Epoxy Resin	28064-14-4		0.005	mg	38462	523
Die Attach				Supplier	Glue	Silver (Ag)	7440-22-4		0.085	mg	653846	8891
Die Attach				Supplier	Glue	1,4-bis(2,3-epoxypropoxy)butane	2425-79-8		0.030	mg	230769	3138
Die Attach				Supplier	Glue	Aromatic Amine	95-80-7		0.010	mg	76923	1046
Bonding Wire	Precious metals	0.400	mg	Supplier	wire	Gold (Au)	7440-57-5		0.400	mg	1000000	41841
Encapsulation	Other Organic Materials	5.839	mg	Supplier	Molding compound	Fused Silica	60676-86-0		5.219	mg	893817	545921
Encapsulation				Supplier	Molding compound	Biphenyl epoxy Resin	85954-11-6		0.500	mg	85631	52301
Encapsulation				Supplier	Molding compound	Carbon Black	1333-86-4		0.030	mg	5138	3138
Encapsulation				Supplier	Molding compound	Epoxy Cresol Novolac	29690-82-2		0.030	mg	5138	3138
Encapsulation				Supplier	Molding compound	Phenol Resin	26834-02-6		0.045	mg	7707	4707
Encapsulation				Supplier	Molding compound	Bismuth (Bi)	7440-69-9		0.015	mg	2569	1569
Finishing	Other inorganic materials	0.500	mg	Supplier	Connection Coating	Tin (Sn)	7440-31-5		0.500	mg	1000000	52301