



## 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>	2018-09-18
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier Comment section		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/support.html">http://www.st.com/web/en/support/support.html</a>		

**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			
<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
	FB07*A247CCY	A	ZY1A	2018-09-18
Amount	UoM	Unit type	ST ECOPACK Grade	
80	mg	Each	ECOPACK® 3	
	Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

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	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	4.85x3.9x1.52	8	gull wing	
Comment	07 SO 08 .15 JEDEC; MDF valid for TSB7192AIYDT			

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-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				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	FB07*A247CCY				6000000.0	1000001.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	2.069	mg	supplier	die	Silicon (Si)	7440-21-3		2.069	mg	1000000	25863
Leadframe	M-004 Copper and its alloys	32.381	mg	supplier	alloy	Copper (Cu)	7440-50-8		31.314	mg	967051	391426
				supplier	alloy	Iron (Fe)	7439-89-6		0.755	mg	23308	9434
				supplier	alloy	Zinc (Zn)	7440-66-6		0.039	mg	1190	482
				supplier	alloy	Metallic Phosphorus (P)	7723-14-0		0.010	mg	298	120
				supplier	metallization	Silver (Ag)	7440-22-4		0.264	mg	8153	3300
Die attach	M-015 Other organic materials	0.690	mg	supplier	glue	Silver (Ag)	7440-22-4		0.518	mg	750000	6469
				supplier	glue	Reaction product: bisphenol-F-(epichlorhydrin)	9003-36-5		0.048	mg	70000	604
				supplier	glue	Fatty acids, C18-unsatd., dimers, polymers with	68475-94-5		0.028	mg	40000	345
				supplier	glue	gamma- Butyrolactone	96-48-0		0.028	mg	40000	345
				supplier	glue	Polyoxyalkylene amine	9046-10-0		0.028	mg	40000	345
				supplier	glue	Epoxy Resin	Proprietary		0.028	mg	40000	345
				supplier	glue	Copper Oxide	1317-38-0		0.007	mg	10000	86
				supplier	glue	Epoxy Resin Modifier	Proprietary		0.003	mg	5000	43
Bonding wires	M-008 Precious metals	0.160	mg	supplier	glue	Substituted Silane	Proprietary		0.003	mg	5000	43
				supplier	wire	Gold (Au)	7440-57-5		0.158	mg	990500	1981
				supplier	wire	Palladium (Pd)	7440-05-3		0.002	mg	9500	19
Encapsulation	M-015 Other organic materials	43.336	mg	supplier	molding compound	Epoxy Resin	29690-82-2		3.684	mg	85000	46045
				supplier	molding compound	Phenol Resin	205830-20-2		1.733	mg	40000	21668
				supplier	molding compound	Silica Amorphous A	60676-86-0		34.235	mg	790000	427943
				supplier	molding compound	Silica Amorphous B	7631-86-9		3.467	mg	80000	43336
				supplier	molding compound	Carbon Black	1333-86-4		0.217	mg	5000	2709
Finishing	M-011 Other inorganic materials	1.364	mg	supplier	molding compound	Tin (Sn)	7440-31-5		1.364	mg	1000000	17050