



## 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>	23-01-2018
<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>	MDG MD CHAMPION	<b>Representative Title</b>	MDG 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>		

<b>Uncertainty Statement</b>	
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<b>Legal Statement</b>	
<b>Supplier Acceptance *</b>	true
	<b>Legal Declaration *</b>
	Standard
<b>Legal Statement</b>	<p>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.</p>

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32F031F4P6	P8YA*444XXXA	A	9998	23-01-2018
	Amount	UoM	Unit type	ST ECOPACK Grade
	72.00	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
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable; if coating is used or other bulk termination	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
-	6.5x4.4x1	20		
Comment	Package : YA TSSOP 20 BODY 4.4 PITCH 0.65 0087225			

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-12th January 2017				
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 :						Mfr Item Name	P8YA*444XXXA				5999998.0	0.0				
note : Substance present with less 0.001mg will not be declared in this document																
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Die or dies	M-011 Other inorganic materials	3.936	mg	supplier	die	Silicon (Si)	7440-21-3		3.717	mg	944360	51624				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.015	mg	3811	208				
				supplier	metallization	Copper (Cu)	7440-50-8		0.074	mg	18801	1028				
				supplier	metallization	Cobalt (Co)	7440-48-4		0.014	mg	3557	194				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	1016	56				
				supplier	metallization	Tungsten (W)	7440-33-7		0.008	mg	2033	111				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.010	mg	2541	139				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.094	mg	23882	1306				
				LEADFRAME	Copper and its alloy	36.431	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		34.408	mg	944470	477882
								supplier	ALLOY	Nickel (Ni)	7440-02-0		1.073	mg	29453	14903
supplier	ALLOY	Silicon (Si)	7440-21-3						0.232	mg	6368	3222				
supplier	ALLOY	Magnesium (Mg)	7439-95-4						0.054	mg	1482	750				
supplier	COATING	Nickel (Ni)	7440-02-0						0.647	mg	17760	8986				
supplier	COATING	Palladium (Pd)	7440-05-3						0.014	mg	384	194				
supplier	COATING	Gold (Au)	7440-57-5						0.003	mg	82	42				
DIE ATTACH	M-011 Other inorganic materials	0.848	mg	supplier	GLUE	Epoxy resin A	9003-36-5		0.059	mg	69575	819				
				supplier	GLUE	Epoxy resin B	68475-94-5		0.034	mg	40094	472				
				supplier	GLUE	Silver(Ag)	7440-22-4		0.653	mg	770047	9069				
				supplier	GLUE	Lactone	96-48-0		0.034	mg	40094	472				
				supplier	GLUE	Polyoxypropylenediamine	9046-10-0		0.034	mg	40094	472				
				supplier	GLUE	2,6-Diglycidyl phenyl allyl ether oligomer	Proprietary		0.034	mg	40094	472				
BONDING WIRE	M-011 Other inorganic materials	0.270	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.267	mg	988889	3708				
				supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.003	mg	11111	42				
ENCAPSULATION	M-011 Other inorganic materials	26.866	mg	supplier	MOLDING COMPOUND	Epoxy Resin	Proprietary		2.772	mg	94685	38499				
				supplier	MOLDING COMPOUND	Silica fused (SiO2)	60676-86-0		25.317	mg	831671	-648378				
				supplier	MOLDING COMPOUND	Phenol Resin	Proprietary		2.002	mg	68384	27805				
FINISHING	M-011 Other inorganic materials	0.271	mg	supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		0.154	mg	5260	2139				
				supplier	CONNECTION COATING	Nickel (Ni)	7440-02-0		0.264	mg	974170	3667				
				supplier	CONNECTION COATING	Palladium (Pd)	7440-05-3		0.006	mg	22140	83				
				supplier	CONNECTION COATING	Gold (Au)	7440-57-5		0.001	mg	3690	14				