



## 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>	31-07-2017
<b>Company Unique ID</b>	NL 008751171801		
<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>		

**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
STM32F051K8U7	S6MG*440XXXB	A	998Z	31-07-2017
	Amount	UoM	Unit type	ST ECOPACK Grade
	56,11	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	
Not Applicable; if coating is used or other bulk termination	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	5x5x0.55	32	No lead	
Comment	Package : A0B8 UFQFPN 5X5X0.55 32L 0.5 MM PITCH 8202208			

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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	56MG*440XXXB				5969996,0	899988,0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or dies	M-011 Other inorganic materials	2,713	mg	Supplier	die	Silicon (Si)	7440-21-3		2,440	mg	899373	43489
				Supplier	metallization	Aluminium (Al)	7429-90-5		0,019	mg	7003	339
				Supplier	metallization	Copper (Cu)	7440-50-8		0,093	mg	34279	1658
				Supplier	metallization	Cobalt (Co)	7440-48-4		0,017	mg	6266	303
				Supplier	metallization	Titanium (Ti)	7440-32-6		0,005	mg	1843	89
				Supplier	metallization	Tungsten (W)	7440-33-7		0,010	mg	3686	178
				Supplier	Passivation	Silicon Nitride	12033-89-5		0,012	mg	4423	214
				Supplier	Passivation	Silicon Oxide	7631-86-9		0,117	mg	43126	2085
				Supplier	Glue	Silver	7440-22-4		0,327	mg	709328	5828
				Supplier	Glue	Bisphenol-F, epoxy resin	9003-36-5		0,022	mg	47722	392
Die Attach	M-011 Other inorganic materials	0,461	mg	Supplier	Glue	Fatty acids, polymers with epichlorohydrin	68475-94-5		0,022	mg	47722	392
				Supplier	Glue	Gamma Butyrolactone	96-48-0		0,022	mg	47722	392
				Supplier	Glue	Epoxy Resin	Proprietary		0,022	mg	47722	392
				Supplier	Glue	Poly(Oxy(methyl-1, 2-ethanediyl)	9046-10-0		0,022	mg	47722	392
				Supplier	Glue	Copper Oxide	1317-38-0		0,022	mg	47722	392
				Supplier	Glue	1,4-Bis(2,3-epoxypropoxy) butane	2425-79-8		0,002	mg	4338	36
				Supplier	Epoxy	Epoxy Resin A	Proprietary		0,527	mg	30145	9393
				Supplier	Epoxy	Epoxy Resin B	Proprietary		0,527	mg	30145	9393
				Supplier	Epoxy	Phenol Resin A	Proprietary		0,527	mg	30145	9393
				Supplier	Epoxy	Phenol Resin B	Proprietary		0,527	mg	30145	9393
Encapsulation	M-011 Other inorganic materials	17,482	mg	Supplier	Epoxy	Metal Hydroxide	Proprietary		0,264	mg	15101	4705
				Supplier	Epoxy	Carbon Black	1333-86-4		0,053	mg	3032	945
				Supplier	Epoxy	Silica Fused	60676-86-0		15,057	mg	861286	268367
				Supplier	Wire	Silver (Ag)	7440-22-4		0,249	mg	965000	4439
				Supplier	Wire	Gold (Au)	7440-57-5		0,001	mg	5000	23
Bonding wire	M-011 Other inorganic materials	0,258	mg	Supplier	Connection coating	Tin	7440-31-5		1,604	mg	1000000	28589
				Supplier	Alloy	Copper	7440-50-8		31,852	mg	948117	567711
Flinshing	M-011 Other inorganic materials	1,604	mg	Supplier	Alloy	Nickel	7440-02-0		1,000	mg	29766	17823
				Supplier	Alloy	Silicon	7440-21-3		0,216	mg	6430	3850
				Supplier	Alloy	Magnesium	7439-95-4		0,051	mg	1518	909
Leadframe	M-011 Other inorganic materials	33,595	mg	Supplier	Alloy	Silver	7440-22-4		0,476	mg	14169	8484