




## 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>	24-10-2017
<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  Legal Declaration * 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
STM32L051K8U3	S9MG*417XXXX	A	998Z	24-10-2017
	Amount	UoM	Unit type	ST ECOPACK Grade
	49.08	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	flat	
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-7th July 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	S9MG*417XXXX				6000000.0	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	2.881	mg	supplier	die	Silicon (Si)	7440-21-3		2.669	mg	926414	54382
				supplier	metallization	Aluminium (Al)	7429-90-5		0.019	mg	6595	387
				supplier	metallization	Copper (Cu)	7440-50-8		0.062	mg	21520	1263
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.007	mg	2430	143
				supplier	metallization	Titanium (Ti)	7440-32-6		0.009	mg	3124	183
				supplier	Passivation	Silicon Nitride	12033-89-5		0.016	mg	5554	326
				supplier	Passivation	Silicon Oxide	7631-86-9		0.099	mg	34363	2017
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Die Attach Epoxy _ABLEBOND 8290_H	M-011 Other inorganic materials	0.281	mg	Supplier	Metals	Silver	7440-22-4		0.198	mg	704535	4033
				Supplier	Plastics/polymers	Bisphenol-F, epoxy resin	9003-36-5		0.014	mg	48437	277
				Supplier	Polymers	Fatty acids, polymers with epichlorohydrin	68475-94-5		0.014	mg	48437	277
				Supplier	Organic Compounds	Gamma Butyrolactone	96-48-0		0.014	mg	48437	277
				Supplier	Epoxy Resin	Epoxy Resin	Proprietary		0.014	mg	48437	277
				Supplier	Amines	Poly(Oxy(methyl-1, 2-ethanediyl))	9046-10-0		0.014	mg	48437	277
				Supplier	Metallic compounds	Copper Oxide	1317-38-0		0.014	mg	48437	277
				Supplier	Organic Compounds	1,4-Bis(2,3-epoxypropoxy) butane	2425-79-8		0.001	mg	4844	28
Mold Compound_EME-G770_Sumitor	M-011 Other inorganic materials	17.061	mg	Supplier	Plastics/polymers	Epoxy Resin A	Proprietary		0.364	mg	19837	7416
				Supplier	Plastics/polymers	Epoxy Resin B	Proprietary		0.364	mg	19837	7416
				Supplier	Plastics/polymers	Phenol Resin A	Proprietary		0.364	mg	19837	7416
				Supplier	Plastics/polymers	Phenol Resin B	Proprietary		0.364	mg	19837	7416
				Supplier	Glass	Silica (Amorphous) A	60676-86-0		12.153	mg	732452	-752384
				Supplier	Glass	Silica (Amorphous) B	7631-86-9		2.986	mg	162767	60848
				Supplier	Metallic compounds	Metal Hydroxide	Proprietary		0.364	mg	19837	7416
				Supplier	Additives	Carbon Black	1333-86-4		0.103	mg	5595	2092
Bonding wire_WIRE Ag SI TYPE_MKE	Bonding Wire	0.196	mg	Supplier	Metals	Silver	7440-22-4		0.188	mg	960000	3827
				Supplier	Metals	Others	Proprietary		0.008	mg	40000	159
Anode Ball_Pure Tin_Nuonengda	M-011 Other inorganic materials	1.659	mg	Supplier	Metals	Tin	7440-31-5		1.659	mg	1000000	33812
Lead frame_C7+Ag_HDS	Copper & its alloys	27.000	mg	Supplier	Metals	Nickel	7440-02-0		0.793	mg	29365	16155
				Supplier	Glass	Silicon	7440-21-3		0.176	mg	6500	3576
				Supplier	Metals	Magnesium	7439-95-4		0.042	mg	1565	861
				Supplier	Metals	Silver	7440-22-4		1.701	mg	63000	34659
				Supplier	Metals	Copper	7440-50-8		24.288	mg	899570	494890