



## 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>	25-01-2019
<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
STM32L011G3U7	73MB*457XXXZ	A	998Z	25-01-2019
	Amount	UoM	Unit type	ST ECOPACK Grade
	24.02	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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	4X4X0.55	48	No lead	
Comment	Package : A0B0 UFQFPN 4X4X0.55 28L PITCH0.5 COL 8202209			

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 :						Mfr Item Name	73MB*457XXXZ				5000000.0	999959.4
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	1.594	mg	supplier	die	Silicon (Si)	7440-21-3		1.467	mg	920326	61064
				supplier	metallization	Aluminium (Al)	7429-90-5		0.011	mg	6901	458
				supplier	metallization	Copper (Cu)	7440-50-8		0.037	mg	23212	1540
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.004	mg	2509	167
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	3764	250
				supplier	Passivation	Silicon Nitride	12033-89-5		0.010	mg	6274	416
				supplier	Passivation	Silicon Oxide	7631-86-9		0.059	mg	37014	2456
Die Attach Epoxy_8006NS_Henkel	M-011 Other inorganic materials	0.195	mg	Supplier	Metals	Silver	7440-22-4		0.137	mg	704535	5708
				Supplier	Plastics/polymers	Bisphenol-F, epoxy resin	9003-36-5		0.009	mg	48437	392
				Supplier	Organic Compounds	Fatty acids, polymers with epichlorohydrin	68475-94-5		0.009	mg	48437	392
				Supplier	Organic Compounds	Gamma Butyrolactone	96-48-0		0.009	mg	48437	392
				Supplier	Organic Compounds	Epoxy Resin Proprietary	Proprietary		0.009	mg	48437	392
				Supplier	Amines	Poly(Oxy(methyl-1, 2-ethanediyl))	9046-10-0		0.009	mg	48437	392
				Supplier	Metallic compounds	Copper Oxide	1317-38-0		0.009	mg	48437	392
				Supplier	Organic Compounds	1,4-Bis(2,3-epoxypropoxy) butane	2425-79-8		0.001	mg	4844	39
EMC_G770HCD_Sumitomo	M-011 Other inorganic materials	11.078	mg	Supplier	Organic Compounds	Epoxy Resin	Proprietary		0.327	mg	29542	13623
				Supplier	Organic Compounds	Phenol Resin	Proprietary		0.327	mg	29542	13623
				Supplier	Glass	Silica (Amorphous) A	60676-86-0		8.727	mg	787789	363278
				Supplier	Glass	Silica (Amorphous) B	7631-86-9		1.636	mg	147710	68115
				Supplier	Additives	Carbon Black	1333-86-4		0.060	mg	5416	2498
BondingWire_Au_MKE	Bonding Wire	0.212	mg	Supplier	Metals	Gold	7440-57-5		0.212	mg	1000000	8827
Leadframe_C7+ppf_HDS	Metals	10.944	mg	Supplier	Metals	Nickel	7440-02-0		0.485	mg	44305	20183
				Supplier	Glass	Silicon	7440-21-3		0.078	mg	7125	3246
				Supplier	Metals	Magnesium	7439-95-4		0.019	mg	1720	784
				Supplier	Metals	Gold	7440-57-5		0.003	mg	295	134
				Supplier	Metals	Copper	7440-50-8		10.351	mg	945850	430876
				Supplier	Metals	Palladium	7440-05-3		0.005	mg	490	223
				Supplier	Metals	Silver	7440-22-4		0.002	mg	215	98