




## Materials Declaration Form

<b>IPC Form Type *</b>	<b>1752 Distribute</b>	<b>Version</b>	<b>2</b>
<b>Sectionals *</b>	<b>Material Info Manufacturing Info</b>	<b>Subsectionals *</b>	<b>A-D</b>
<b>* : Required Field</b>			

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2018-09-04</b>
<b>Company Unique ID</b>	<b>NL 008751171B01</b>		
<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>	<b>MDG MD CHAMPION</b>	<b>Representative Title</b>	<b>MDG MD CHAMPION</b>
<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>	<b>true</b>
<b>Legal Declaration *</b>	<b>Standard</b>
<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
STM32L073RZT3	S45W*447XXXZ	A	998Z	2018-09-04
Amount	UoM	Unit type	ST ECOPACK Grade	
355.39	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	
able; if coating is used or other bulk	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	10X10X1.4	64	L Bend	
Comment	Package : 5W LQFP 64 10x10x1.4 1 0051434			

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	S45W*447XXXZ				5999999.0	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	9.883	mg	supplier	die	Silicon (Si)	7440-21-3		9.578	mg	969139	26951
				supplier	metallization	Aluminium (Al)	7429-90-5		0.027	mg	2732	76
				supplier	metallization	Copper (Cu)	7440-50-8		0.088	mg	8904	248
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.010	mg	1012	28
				supplier	metallization	Titanium (Ti)	7440-32-6		0.013	mg	1315	37
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	101	3
				supplier	Passivation	Silicon Nitride	12033-89-5		0.024	mg	2428	68
				supplier	Passivation	Silicon Oxide	7631-86-9		0.142	mg	14368	400
Die Attach Epoxy_ABLEBOND 3230_H	M-011 Other inorganic materials	0.908	mg	Supplier	Metals	Silver	7440-22-4		0.818	mg	901000	2302
				Supplier	Plastics/polymers	Highly cross-linked polymer	Proprietary		0.090	mg	99000	253
Mold Compound_EME-G631SHQ_Sur	M-011 Other inorganic materials	245.046	mg	Supplier	Plastics/polymers	Epoxy Resin A	Proprietary		5.213	mg	21000	14669
				Supplier	Plastics/polymers	Epoxy Resin B	Proprietary		5.213	mg	21000	14669
				Supplier	Plastics/polymers	Phenol Resin	Proprietary		13.902	mg	56000	39119
				Supplier	Glass	Silica(Amorphous)A	60676-86-0		190.541	mg	780450	-463852
				Supplier	Glass	Silica(Amorphous)B	7631-86-9		28.629	mg	115320	80556
Wire_AG Si TYPE_MKE	Bonding Wire	0.614	mg	Supplier	Non-metals	Carbon Black	1333-86-4		1.547	mg	6230	4352
				Supplier	Metals	Silver	7440-22-4		0.589	mg	960000	1658
Plating anode_Pure Tin_Nuo Nengda	M-011 Other inorganic materials	1.438	mg	Supplier	Metals	Others	Proprietary		0.025	mg	40000	69
				Supplier	Metals	Tin	7440-31-5		1.438	mg	1000000	4046
Leadframe_C194+Ag_HDS	Copper & its alloys	97.500	mg	Supplier	Metals	Iron	7439-89-6		2.132	mg	21865	5999
				Supplier	Non-metals	Phosphorus	7723-14-0		0.071	mg	730	200
				Supplier	Metals	Zinc	7440-66-6		0.110	mg	1125	309
				Supplier	Metals	Copper	7440-50-8		89.040	mg	913235	250544
				Supplier	Metals	Silver	7440-22-4		6.143	mg	63000	17284
				JIG-R	Metals	Lead	7439-92-1		0.004	mg	45	12