



Materials Declaration Form

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


Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2017-03-22
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	LAURENT TOSI	Representative Title	MDG MD CHAMPION
Representative Phone *	33 442 685 795	Representative Email *	laurent.tosi@st.com
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

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Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	Standard
Legal Statement	<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
STM32L462CEU6	B0MI*462XXXY	A	9988	2017-03-22
	Amount	UoM	Unit type	ST ECOPACK Grade
	98.375	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 : add in comments	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	7X7X0.55	48	flat	
Comment	Package = A0B9 UFQFPN 7X7X0.55 48L 0.5 MM PITCH 8202210			

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	BOMI*462XXXY					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	4.803	mg	Supplier	die	Silicon (Si)	7440-21-3		4.379	mg	911722	44513
				Supplier	metallization	Aluminium (Al)	7429-90-5		0.020	mg	4164	203
				Supplier	metallization	Copper (Cu)	7440-50-8		0.180	mg	37477	1830
				Supplier	metallization	Tantalum (Ta)	7440-25-7		0.058	mg	12076	590
				Supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	416	20
				Supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	416	20
				Supplier	Passivation	Silicon Nitride	12033-89-5		0.046	mg	9577	468
				Supplier	Passivation	Silicon Oxide	7631-86-9		0.116	mg	24152	1179
				Supplier	Metals	Silver	7440-22-4		0.839	mg	704535	8524
				Supplier	Plastics/polymers	Bisphenol-F, epoxy resin	9003-36-5		0.058	mg	48437	586
Die Attach Epoxy_ABLEBOND 8290_H	Other inorganic materials	1.190	mg	Supplier	Polymers	Fatty acids, polymers with epichlorohydrin	68475-94-5		0.058	mg	48437	586
				Supplier	Organic Compounds	Gamma Butyrolactone	96-48-0		0.058	mg	48437	586
				Supplier	Epoxy Resin	Epoxy Resin	Proprietary		0.058	mg	48437	586
				Supplier	Amines	Poly(Oxy(methyl-1, 2-ethanediyl))	9046-10-0		0.058	mg	48437	586
				Supplier	Metallic compounds	Copper Oxide	1317-38-0		0.058	mg	48437	586
				Supplier	Organic Compounds	1,4-Bis(2,3-epoxypropoxy) butane	2425-79-8		0.006	mg	4844	59
				Supplier	Epoxy Resin	Epoxy Resin A	Proprietary		0.685	mg	20084	6967
				Supplier	Epoxy Resin	Epoxy Resin B	Proprietary		0.685	mg	20084	6967
Mold Compound_EME-G770_Sumitor	Other inorganic materials	34.123	mg	Supplier	Phenol Resin	Phenol Resin A	Proprietary		0.685	mg	20084	6967
				Supplier	Phenol Resin	Phenol Resin B	Proprietary		0.685	mg	20084	6967
				Supplier	Glass	Silica (Amorphous) A	60676-86-0		24.880	mg	729122	252910
				Supplier	Glass	Silica (Amorphous) B	7631-86-9		5.623	mg	164793	57162
				Supplier	Metallic compounds	Metal Hydroxide	Proprietary		0.685	mg	20084	6967
				Supplier	Additives	Carbon Black	1333-86-4		0.193	mg	5665	1965
				Supplier	Metals	Gold	7440-57-5		0.687	mg	1000000	6988
				Supplier	Metals	Tin	7440-31-5		3.693	mg	1000000	37537
GOLD WIRE_UR2_MKE_MKE	Other inorganic materials	0.687	mg	Supplier	Metals	Copper	7440-50-8		51.098	mg	948400	519420
Anode Ball_Pure Tin_Nuonengda	Other inorganic materials	3.693	mg	Supplier	Metals	Nickel	7440-57-5		1.595	mg	29600	16211
Lead frame_C7+Ag_Mitsui	Other inorganic materials	53.878	mg	Supplier	Glass	Silicon	7440-21-3		0.345	mg	6400	3505
				Supplier	Metals	Magnesium	7439-95-4		0.081	mg	1500	822
				Supplier	Metals	Silver	7440-22-4		0.760	mg	14100	7722