



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D

** : Required Field*


Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2016-08-26
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Laurent TOSI	Representative Title	MMS 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		

Uncertainty Statement

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Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	Standard
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 omprehensive 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
STM8AL3166UAY	P042*79HX21Z	A	9996	2016-08-26
	Amount	UoM	Unit type	ST ECOPACK Grade
	69.0	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	5x5x1.0	32	L bend	
Comment	Package: 42 VFQFPN 5X5x1.0 32L PITCH 0.5 7376875			

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-20th June 2016				
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	P042*79HX21Z					
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	3.051	mg	supplier	die	Silicon (Si)	7440-21-3		2.912	mg	954441	42203
Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.012	mg	3933	174
Die				supplier	metallization	Copper (Cu)	7440-50-8		0.040	mg	13110	580
Die				supplier	metallization	Tantalum (Ta)	7440-25-7		0.005	mg	1639	72
Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	1967	87
Die				supplier	Passivation	Silicon Nitride	12033-89-5		0.011	mg	3605	159
Die				supplier	Passivation	Silicon Oxide	7631-86-9		0.065	mg	21304	942
LEADFRAME (C194Ag)	Other inorganic materials	39.919	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		38.921	mg	974999	564072
LEADFRAME (C194Ag)				supplier	ALLOY	Iron (Fe)	7439-89-6		0.938	mg	23498	13594
LEADFRAME (C194Ag)				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.048	mg	1202	696
LEADFRAME (C194Ag)				supplier	ALLOY	Phosphorus (P)	7723-14-0		0.012	mg	301	174
LEADFRAME (C194Ag) Coating	Other inorganic materials	0.896	mg	supplier	COATING	Silver (Ag)	7440-22-4		0.896	mg	1000000	12986
DIE ATTACH (AMK06)	Other inorganic materials	0.789	mg	supplier	GLUE	Proprietary Acrylates	Proprietary		0.079	mg	100000	1143
DIE ATTACH (AMK06)				supplier	GLUE	Silver (Ag)	7440-22-4		0.631	mg	800000	9148
DIE ATTACH (AMK06)				supplier	GLUE	2-Propenoic,2-methyl-,2[(2,3,3a,4,7,7a(or 3a,4	68586-19-6		0.071	mg	90000	1029
DIE ATTACH (AMK06)				supplier	GLUE	2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane	3388-04-3		0.008	mg	10000	114
BONDING WIRE	Other inorganic materials	0.538	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.538	mg	1000000	7797
ENCAPSULATION (EME G700Y)	Other inorganic materials	22.292	mg	supplier	MOLDING COMPOUND	Epoxy resin	Trade secret		2.019	mg	90570	29261
ENCAPSULATION (EME G700Y)				supplier	MOLDING COMPOUND	Silica fused (SiO2)	60676-86-0		19.152	mg	859144	277568
ENCAPSULATION (EME G700Y)				supplier	MOLDING COMPOUND	Phenol Resin	205830-20-2		1.009	mg	45262	14623
ENCAPSULATION (EME G700Y)				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		0.112	mg	5024	1623
EXTERNAL PLATING	Other inorganic materials	1.515	mg	supplier	COATING	Tin (Sn)	7440-31-5		1.515	mg	1000000	21954