



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 *	2018-04-12
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	Floriana SAN BIAGIO	Representative Title	AMS MD CHAMPION
Representative Phone *	Refer to Supplier Comment section	Representative Email *	Refer to Supplier Comment section
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 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.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
	8MWQ*UA50BB5	A	CA2A	2018-04-12
Amount	UoM	Unit type	ST ECOPACK Grade	
21	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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	3x3x1	10	flat	
Comment	WQ,VDFPN 3x3x1.0 10 PITCH 0.50; MDF valid for L7986TR			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 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-15th January 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
-	-			0
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
-	-	0.00		

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	8MWQ*UAS0BBS				500000.0	999999.0				
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Die	M-011 Other inorganic materials	2.086	mg	supplier	die	Silicon (Si)	7440-21-3		1.976	mg	947267	94095				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.020	mg	9588	952				
				supplier	metallization	Tungsten (W)	7440-33-7		0.016	mg	7670	762				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.004	mg	1918	190				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.035	mg	16779	1667				
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	959	95				
				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	1918	190				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.008	mg	3835	381				
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.021	mg	10067	1000				
				Leadframe	M-004 Copper and its alloys	11.764	mg	supplier	alloy	Copper (Cu)	7440-50-8		11.713	mg	995665	557762
supplier	alloy	Iron (Fe)	7439-89-6						0.006	mg	510	286				
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.009	mg	765	429				
supplier	metallization	Nickel (Ni)	7440-02-0						0.033	mg	2805	1571				
supplier	metallization	Palladium (Pd)	7440-05-3						0.002	mg	170	95				
supplier	metallization	Gold (Au)	7440-57-5						0.001	mg	85	48				
Die attach	M-015 Other organic materials	0.704	mg					supplier	glue	Silver (Ag)	7440-22-4		0.562	mg	798295	26762
								supplier	glue	methylene diacrylate	42594-17-2		0.115	mg	163352	5476
								supplier	glue	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.018	mg	25568	857
								supplier	glue	Epoxydicyclohexylethyltrimethoxysilane	3388-04-3		0.004	mg	5682	190
				supplier	glue	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.004	mg	5682	190				
				supplier	glue	Palladium (Pd)	7440-05-3		0.001	mg	1420	48				
				supplier	wire	Gold (Au)	7440-57-5		0.139	mg	992857	6619				
				supplier	wire	Palladium (Pd)	7440-05-3		0.001	mg	7143	48				
Encapsulation	M-011 Other inorganic materials	6.306	mg	supplier	mold compound	silica vitreous	60676-86-0		5.379	mg	852997	256143				
				supplier	mold compound	epoxy resin	29690-82-2		0.252	mg	39962	12000				
				supplier	mold compound	Phenol resin	25068-38-6		0.221	mg	35046	10524				
				supplier	mold compound	Magnesium hydroxide	1309-42-8		0.252	mg	39962	12000				
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.126	mg	19981	6000				
				supplier	mold compound	Zinc hydroxide	20427-58-1		0.063	mg	9990	3000				
				supplier	mold compound	carbon black	1333-86-4		0.013	mg	2062	619				