



## 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 <i>* : Required Field</i>

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2017-11-20
<b>Company Unique ID</b>	NL 008751171801		
<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>	Floriana SAN BIAGIO	<b>Representative Title</b>	AMG 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>		

**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
	DZWX*46VBCS3	B	ZS1A	2017-11-20
Amount	UoM	Unit type	ST ECOPACK Grade	
8.70	mg	Each	ECOPACK® 3	
	Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	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	
SOT	2.8x1.5 x0.9	3	gull wing	
Comment	Package:WX SOT 23 3 LDS; MDF valid for STM1001SWX6F5			

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-7th July 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	DZWX*46VBCS3				4999928.0	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 or dies	M-011 Other inorganic materials	0.384	mg	supplier	die	Silicon (Si)	7440-21-3		0.376	mg	979167	43218
				supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	5208	230
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	2604	115
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	2604	115
				supplier	Passivation	Silicon Oxide	7631-86-9		0.004	mg	10417	460
Leadframe	M-004 Copper and its alloys	2.350	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.264	mg	963240	260230
				supplier	alloy	Iron (Fe)	7439-89-6		0.053	mg	22549	6092
				supplier	alloy	Phosphorus (P)	7723-14-0		0.001	mg	425	115
				supplier	alloy	Zinc (Zn)	7440-66-6		0.003	mg	1276	345
				supplier	metallization	Nickel (Ni)	7440-02-0		0.027	mg	11487	3103
Die attach	M-008 Precious metals	0.030	mg	supplier	metallization	Palladium (Pd)	7440-05-3		0.002	mg	851	230
				supplier	glue	Aluminium oxide	1344-28-1		0.009	mg	300000	1034
Bonding wires	M-015 Other organic materials	5.836	mg	supplier	glue	Diethylene glycol monoethyl ether acetate	112-15-2		0.012	mg	400000	1379
				supplier	glue	Epoxy resin-1	25068-38-6		0.002	mg	66667	230
				supplier	glue	Epoxy resin-2	Proprietary		0.006	mg	200000	690
				supplier	glue	Aromatic amine	Proprietary		0.001	mg	33333	115
				supplier	wire	Gold (Au)	7440-57-5		0.100	mg	1000000	11494
Encapsulation	M-015 Other organic materials	5.836	mg	supplier	mold compound	Epoxy resin-1	29690-38-6		0.175	mg	29986	20115
				supplier	mold compound	Epoxy resin-2	Proprietary		0.162	mg	27759	18621
				supplier	mold compound	Phenol resin	25068-38-6		0.263	mg	45065	30230
				supplier	mold compound	Silica	60676-86-0		5.107	mg	875086	587011
				supplier	mold compound	Carbon black	1333-86-4		0.012	mg	2056	1379
				supplier	mold compound	Others	Proprietary		0.117	mg	20048	13448