



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 *	2018-01-12
Company Unique ID	NL 008751171801		
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
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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
	AYWY*N6VAX00	A	ZS1A	2018-01-12
Amount	UoM	Unit type	ST ECOPACK Grade	
16.38	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	
DSO	2.9x1.6x1.05	5	gull wing	
Comment	Package: WY SOT 23-5; MDF valid for STWD100NXWY3F			

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	AYWY*NGVAX00				5000000.0	999996.0
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	0.235	mg	supplier	die	Silicon (Si)	7440-21-3		0.227	mg	965957	13858
				supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	8511	122
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	4255	61
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	4255	61
				supplier	Passivation	Silicon Oxide	7631-86-9		0.004	mg	17021	244
Leadframe	M-004 Copper and its alloys	7.921	mg	supplier	alloy	Copper (Cu)	7440-50-8		7.677	mg	969196	468681
				supplier	alloy	Iron (Fe)	7439-89-6		0.181	mg	22851	11050
				supplier	alloy	Phosphorus (P)	12185-10-3		0.002	mg	252	122
				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1136	549
				supplier	metallization	Nickel (Ni)	7440-02-0		0.048	mg	6060	2930
Die attach	M-008 Precious metals	0.083	mg	supplier	metallization	Palladium (Pd)	7440-05-3		0.003	mg	379	183
				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	126	61
				supplier	glue	Epoxyde Bisphenol A Resin	25068-38-6		0.023	mg	277108	1404
Bonding wires	M-015 Other organic materials	0.097	mg	supplier	glue	Aromatic amine	Proprietary		0.003	mg	36145	183
				supplier	glue	Glycol ether ester	Proprietary		0.003	mg	36145	183
				supplier	glue	silica	60676-86-0		0.026	mg	313253	1587
				supplier	glue	Aluminium oxide	1344-28-1		0.028	mg	337349	1709
Encapsulation	M-008 Precious metals	0.097	mg	supplier	wire	Gold (Au)	7440-57-5		0.097	mg	1000000	5922
				supplier	mold compound	Silica, vitreous	60676-86-0		6.861	mg	852934	418864
				supplier	mold compound	phenolic resin	25068-38-6		0.282	mg	35057	17216
				supplier	mold compound	epoxy resin	29690-82-2		0.321	mg	39906	19597
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.162	mg	20139	9890
Encapsulation	M-015 Other organic materials	8.044	mg	supplier	mold compound	carbon black	1333-86-4		0.016	mg	1989	977
				supplier	mold compound	Zinc hydroxide	20427-58-1		0.081	mg	10070	4945
				supplier	mold compound	Magnesium hydroxide	1309-42-8		0.321	mg	39906	19597