



## 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>	2017-10-24
<b>Company Unique ID</b>	NL 008751171B01		
<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**

<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
	EBE3*VA46BCY	A	ZY1A	2017-10-24
Amount	UoM	Unit type	ST ECOPACK Grade	
23.71	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	3x3x0.86	8	gull wing	
Comment	Package: E3 MSOP/TSSOP 8 BODY3.00 PITCH0.65; MDF valid for TSZ182IYST			

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	EBE3*VA46BCY				5000001.0	1009333.0
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	0.453	mg	supplier	die	Silicon (Si)	7440-21-3		0.426	mg	940397	17967
				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	11038	211
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	2208	42
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	2208	42
				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	4415	84
				supplier	Passivation	Silicon Oxide	7631-86-9		0.010	mg	22075	422
Leadframe	M-004 Copper and its alloys	9.709	mg	supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.008	mg	17660	337
				supplier	alloy	Copper (Cu)	7440-50-8		9.115	mg	938820	384437
				supplier	alloy	Nickel (Ni)	7440-02-0		0.291	mg	29972	12273
				supplier	alloy	Silicon (Si)	7440-21-3		0.063	mg	6489	2657
				supplier	alloy	Magnesium (Mg)	7439-95-4		0.014	mg	1442	590
				supplier	metallization	Nickel (Ni)	7440-02-0		0.217	mg	22350	9152
Die attach	M-015 Other organic materials	0.247	mg	supplier	metallization	Palladium (Pd)	7440-05-3		0.006	mg	618	253
				supplier	metallization	Gold (Au)	7440-57-5		0.003	mg	309	127
				supplier	glue	Epoxy resin A	9003-36-5		0.025	mg	101215	1054
Bonding wires	M-008 Precious metals	0.074	mg	supplier	glue	Epoxy resin B	68475-94-5		0.014	mg	56680	590
				supplier	glue	Silver (Ag)	7440-22-4		0.166	mg	672065	7001
				supplier	glue	Lactone	96-48-0		0.014	mg	56680	590
				supplier	glue	Polyoxypropylenediamine	9046-10-0		0.014	mg	56680	590
				supplier	glue	Z,6-Diglycidyl phenyl allyl ether oligomer	Proprietary		0.014	mg	56680	590
				supplier	wire	Gold (Au)	7440-57-5		0.074	mg	1000000	3121
Encapsulation	M-015 Other organic materials	13.235	mg	supplier	mold compound	Epoxy Resin	29690-82-2		1.209	mg	91349	50991
				supplier	mold compound	Silica fused (SiO2)	60676-86-0		11.085	mg	837552	467524
				supplier	mold compound	Phenol Resin	25068-38-6		0.874	mg	66037	36862
				supplier	mold compound	Carbon Black	1333-86-4		0.067	mg	5062	2826