



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Sectionals *	A-D <i>* : Required Field</i>

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-09-10
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
	EBE3*A239DEY	A	ZY1A	2018-09-10
Amount	UoM	Unit type	ST ECOPACK Grade	
28	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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	3x3x0.86	8	gull wing	
Comment	E3 MSOP/TSSOP 8 BODY3.00 PITCH0.65; MDF valid for TSB712AIYST			

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-27th June 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

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	EBE3*AZ390EY				5999999.0	1000036.0
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	1.672	mg	supplier	die	Silicon (Si)	7440-21-3		1.478	mg	883971	52786
				supplier	metallization	Aluminium (Al)	7429-90-5		0.032	mg	19139	1143
				supplier	metallization	Copper (Cu)	7440-50-8		0.159	mg	95096	5679
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	1794	107
				supplier	alloy	Copper (Cu)	7440-50-8		10.463	mg	955962	373679
Leadframe	M-004 Copper and its alloys	10.945	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.252	mg	23024	9000
				supplier	alloy	Zinc (Zn)	7440-66-6		0.013	mg	1188	464
				supplier	alloy	Metallic Phosphorus (P)	7723-14-0		0.003	mg	274	107
				supplier	metallization	Silver (Ag)	7440-22-4		0.214	mg	19552	7643
				supplier	glue	Silver (Ag)	7440-22-4		0.319	mg	748826	11393
Die attach	M-015 Other organic materials	0.426	mg	supplier	glue	Reaction product: bisphenol-F-(epichlorhydrin)	9003-36-5		0.030	mg	70423	1071
				supplier	glue	Fatty acids, C18-unsatd., dimers, polymers with	68475-94-5		0.017	mg	39906	607
				supplier	glue	gamma. Butyrolactone	96-48-0		0.017	mg	39906	607
				supplier	glue	Polyoxyalkylene amine	9046-10-0		0.017	mg	39906	607
				supplier	glue	Epoxy Resin	Proprietary		0.017	mg	39906	607
				supplier	glue	Copper Oxide	1317-38-0		0.005	mg	11737	179
				supplier	glue	Epoxy Resin Modifier	Proprietary		0.002	mg	4695	71
Bonding wires	M-015 Other organic materials	0.121	mg	supplier	wire	Substituted Silane	Proprietary		0.002	mg	4695	71
				supplier	wire	Gold (Au)	7440-57-5		0.120	mg	991736	4286
				supplier	wire	Palladium (Pd)	7440-05-3		0.001	mg	8264	36
				supplier	molding compound	Epoxy Resin	Proprietary		1.199	mg	84993	42821
Encapsulation	M-015 Other organic materials	14.107	mg	supplier	molding compound	Phenol Resin	205830-20-2		0.564	mg	39980	20143
				supplier	molding compound	Silica Amorphous A	60676-86-0		11.145	mg	790033	398036
				supplier	molding compound	Silica Amorphous B	7631-86-9		1.128	mg	79960	40286
				supplier	molding compound	Carbon Black	1333-86-4		0.071	mg	5033	2536
connections coating	M-011 Other inorganic materials	0.730	mg	supplier	coating	Tin (Sn)	7440-31-5		0.730	mg	1000000	26071