



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 *	2018-01-03
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	AMG 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

While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.


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
	EBE3*3022CCY	A	ZY1A	2018-01-03
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	
SOJ	3x3x1	8	J bend	
Comment	Package: E3 MSOP/TSSOP 8 BODY3.00 PITCH0.65; MDF valid for TS3022IYST			

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*3022CCY				4999997.0	1000041.0
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	0.586	mg	supplier	die	Silicon (Si)	7440-21-3		0.566	mg	965870	23872
				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	8532	211
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1706	42
				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	3413	84
				supplier	Passivation	Silicon Oxide	7631-86-9		0.012	mg	20478	506
Leadframe	M-004 Copper and its alloys	10.561	mg	supplier	alloy	Copper (Cu)	7440-50-8		9.860	mg	933624	415858
				supplier	alloy	Nickel (Ni)	7440-02-0		0.307	mg	29069	12948
				supplier	alloy	Silicon (Si)	7440-21-3		0.067	mg	6344	2826
				supplier	alloy	Magnesium (Mg)	7439-95-4		0.015	mg	1420	633
				supplier	metallization	Nickel (Ni)	7440-02-0		0.302	mg	28596	12737
	M-008 Precious metals			supplier	metallization	Palladium (Pd)	7440-05-3		0.005	mg	473	211
	M-008 Precious metals			supplier	metallization	Gold (Au)	7440-57-5		0.005	mg	473	211
Die attach	M-015 Other organic materials	0.321	mg	supplier	glue	Silver (Ag)	7440-22-4		0.243	mg	757009	10249
				supplier	glue	Reaction product: bisphenol-F-(epichlorhydrin)	9003-36-5		0.022	mg	68536	928
				supplier	glue	Fatty acids, C18-unsatd., dimers, polymers with gamma-Butyrolactone	68475-94-5		0.013	mg	40498	548
				supplier	glue	gamma-Butyrolactone	96-48-0		0.013	mg	40498	548
				supplier	glue	Polyoxyalkylene amine	9046-10-0		0.013	mg	40498	548
				supplier	glue	Epoxy Resin	29690-82-2		0.013	mg	40498	548
				supplier	glue	Epoxy Resin Modifier	Proprietary		0.002	mg	6231	84
				supplier	glue	Substituted Silane	Proprietary		0.002	mg	6231	84
Bonding wires	M-008 Precious metals	0.080	mg	supplier	wire	Gold (Au)	7440-57-5		0.080	mg	1000000	3374
Encapsulation	M-015 Other organic materials	12.163	mg	supplier	mold compound	Epoxy Resin	29690-82-2		1.034	mg	85012	43610
				supplier	mold compound	Phenol Resin	205830-20-2		0.487	mg	40039	20540
				supplier	mold compound	Silica Amorphous A	60676-86-0		9.608	mg	789937	405230
				supplier	mold compound	Silica Amorphous B	7631-86-9		0.973	mg	79997	41038
				supplier	mold compound	Carbon Black	1333-86-4		0.061	mg	5015	2573