



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 *	2018-08-22
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
	ABE3*VBOHABJ	A	ZY1A	2018-08-22
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	Nickel/Palladium/Gold (Ni/Pd/Au)	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 TSU112IST			

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	ABE3*VB0HABJ				5000001.0	832714.0
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	15214
				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	11038	179
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	2208	36
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	2208	36
				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	4415	71
				supplier	Passivation	Silicon Oxide	7631-86-9		0.010	mg	22075	357
Leadframe	M-004 Copper and its alloys	10.034	mg	supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.008	mg	17660	286
				supplier	alloy	Copper (Cu)	7440-50-8		9.478	mg	944588	338500
				supplier	alloy	Nickel (Ni)	7440-02-0		0.286	mg	28503	10214
				supplier	alloy	Magnesium (Mg)	7439-95-4		0.014	mg	1395	500
				supplier	alloy	Silicon (Si)	7440-21-3		0.062	mg	6179	2214
				supplier	metallization	Nickel (Ni)	7440-02-0		0.188	mg	18736	6714
				supplier	metallization	Palladium (Pd)	7440-05-3		0.004	mg	399	143
				supplier	metallization	Gold (Au)	7440-57-5		0.002	mg	199	71
Die attach	M-015 Other organic materials	0.339	mg	supplier	glue	Epoxy resin A	9003-36-5		0.023	mg	67847	821
				supplier	glue	Epoxy resin B	68475-94-5		0.014	mg	41298	500
				supplier	glue	Silver (Ag)	7440-22-4		0.260	mg	766962	9286
				supplier	glue	Lactone	96-48-0		0.014	mg	41298	500
				supplier	glue	Polyoxypropylenediamine	9046-10-0		0.014	mg	41298	500
				supplier	glue	2,6-Diglycidyl phenyl allyl ether oligomer	proprietary		0.014	mg	41298	500
Bonding wires	M-008 Precious metals	0.071	mg	supplier	wire	Gold (Au)	7440-57-5		0.071	mg	1000000	2536
Encapsulation	M-015 Other organic materials	12.419	mg	supplier	mold compound	Epoxy Resin	29690-82-2		1.179	mg	94935	42107
				supplier	mold compound	Silica fused (SiO2)	60676-86-0		10.323	mg	831226	368679
				supplier	mold compound	Phenol Resin	25068-38-6		0.852	mg	68605	30429
				supplier	mold compound	Carbon Black	1333-86-4		0.065	mg	5234	2321