



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 *	2018-09-10
Company Unique ID	NL 008751171B01		
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

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
	PZO7*LE05FC1	A	SH1A	2018-09-10
	Amount	UoM	Unit type	ST ECOPACK Grade
	80	mg	Each	ECOPACK® 2
Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)			

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	4.9x6x1.75	8	gull wing	
Comment	07 SO 08 .15 JEDEC; MDF valid for LE50ABD-TR			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 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
;				
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	PZ07*LE05FC1				5000002.0	1000005.0
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	2.146	mg	supplier	die	Silicon (Si)	7440-21-3		2.098	mg	977633	26225
				supplier	metallization	Aluminium (Al)	7429-90-5		0.027	mg	12582	338
				supplier	Passivation	Silicon Nitride	12033-89-5		0.009	mg	4194	113
				supplier	Passivation	Silicon Oxide	7631-86-9		0.012	mg	5592	150
				supplier	alloy	Copper (Cu)	7440-50-8		30.901	mg	973015	386263
Leadframe	M-004 Copper and its alloys	31.758	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.727	mg	22892	9088
				supplier	alloy	Iron Phosphide (FeP)	36508-33-8		0.044	mg	1385	550
				supplier	alloy	Zinc (Zn)	7440-66-6		0.038	mg	1197	475
				supplier	metallization	Nickel (Ni)	7440-02-0		0.044	mg	1385	550
				supplier	metallization	Palladium (Pd)	7440-05-3		0.001	mg	31	13
				supplier	metallization	Gold (Au)	7440-57-5		0.002	mg	63	25
				supplier	metallization	Silver (Ag)	7440-22-4		0.001	mg	31	13
				supplier	glue	Silver (Ag)	7440-22-4		0.694	mg	876263	8675
Die attach	M-015 Other organic materials	0.792	mg	supplier	glue	Isobornyl Methacrylate	7534-94-3		0.040	mg	50505	500
				supplier	glue	Acrylate resin	5888-33-5		0.040	mg	50505	500
				supplier	glue	Methyl acrylate polymer	87320-05-6		0.016	mg	20202	200
				supplier	glue	Epoxy cyclohexylethyltrimethoxysilane	3388-04-3		0.001	mg	1263	13
				supplier	glue	Tert-Butyl peroxy(2-ethyl)-hexanoate	3006-82-4		0.001	mg	1263	13
				supplier	wire	Copper (Cu)	7440-50-8		0.031	mg	1000000	388
				supplier	mold compound	Silica, vitreous	60676-86-0		39.206	mg	865991	490075
Bonding wires	M-011 Other inorganic materials	0.031	mg	supplier	mold compound	Epoxy Resin	85954-11-6		3.396	mg	75012	42450
				supplier	mold compound	Phenol Resin	26834-02-6		2.264	mg	50008	28300
				supplier	mold compound	Carbon black	1333-86-4		0.226	mg	4992	2825
				supplier	mold compound	Bismuth compound	7440-69-9		0.181	mg	3998	2263
Encapsulation	M-015 Other organic materials	45.273	mg	supplier	mold compound	Silica, vitreous	60676-86-0		39.206	mg	865991	490075
				supplier	mold compound	Epoxy Resin	85954-11-6		3.396	mg	75012	42450
				supplier	mold compound	Phenol Resin	26834-02-6		2.264	mg	50008	28300
				supplier	mold compound	Carbon black	1333-86-4		0.226	mg	4992	2825