



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D * : Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2019-11-07
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
0	L5O7*AU12CEB	A	9998-ZY1A	2019-11-07
	Amount	UoM	Unit type	ST ECOPACK Grade
	76.5	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		
3	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	0	



Package Designator	Size	Nbr of instances	Shape	
DSO	4.85 x 3.9	8	gull wing	
Comment	O7 SO 08 .15 JEDEC; MDF is valid for LDLN015PU18R			

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	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description
7c-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
10a	Electrical and electronic components which contain lead in a glass or ceramic, in a glass or ceramic matrix compound, in a glass-ceramic material, or in a glass-ceramic matrix compound. This exemption does not cover the use of lead in: — glass in bulbs and glaze of spark plugs, — dielectric ceramic materials of components listed under 10(b), 10(c) and 10(d)

QueryList : California Prop65 list, dated 13th September 2019			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.27	leadframe	3569
Lead-Borate Glass	0.26	glass	3346

QueryList : REACH-16th July 2019				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	0.15	present in Lead borate glass on die coating not as Lead metal	2013
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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	1000 ppm	0.15	present in Lead borate glass on die coating not as Lead metal	15074

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update				
Query				Response
The Product does contain at least one of the substances listed in Chemical Control Act				NO
Substance	Homogeneous Material impacted	Content in Homogeneous Material (mg)	Concentration in the material(%)	Application Purpose

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	L507*AU12CEB				6000000.0	1000000.0	
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)	
Dies	M-011 Other inorganic materials	10.216	mg	supplier	die	Silicon(Si)	7440-21-3		9.649	mg	944499	126131	
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.064	mg	6265	837	
				supplier	metallisation	Cobalt(Co)	7440-48-4		0.001	mg	98	13	
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.005	mg	489	65	
				supplier	metallisation	Tungsten(W)	7440-33-7		0.006	mg	587	78	
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.019	mg	1860	248	
				supplier	passivation	Silicon oxide	7631-86-9		0.149	mg	14585	1948	
				supplier	JIG-R & California 65	glass	Lead-BorateGlass	65997-18-4	7c-I-Electrical and electronic co	0.256	mg	25059	3346
				supplier	polymer coating	PIX1 Gamma-butyrolactone	96-48-0		0.067	mg	6558	876	
Leadframe	M-004 Copper and its alloys	25.212	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		24.281	mg	963073	317398	
				supplier	alloy & coating	Nickel(Ni)	7440-02-0		0.273	mg	10828	3569	
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.571	mg	22648	7464	
				supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8		0.035	mg	1388	458	
				supplier	alloy & coating	Zinc(Zn)	7440-66-6		0.030	mg	1190	392	
				supplier	alloy & coating	Palladium(Pd)	7440-05-3		0.012	mg	476	157	
				supplier	alloy & coating	Gold(Au)	7440-57-5		0.010	mg	397	131	
Die attach	M-015 Other organic materials	0.085	mg	supplier	glue	Novolac Epoxy resin	29690-82-2		0.012	mg	141176	157	
				supplier	glue	Phenolic resin	Proprietary		0.012	mg	141176	157	
				supplier	glue	amorphous silica	60676-86-0		0.002	mg	23529	26	
				supplier	glue	Acrylic copolymer resin	28262-63-7		0.059	mg	694119	771	
Bonding wires	M-008 Precious metals	0.333	mg	supplier	wire	Gold (Au)	7440-57-5		0.330	mg	990991	4314	
				supplier	wire	Palladium (Pd)	7440-05-3		0.003	mg	9009	39	
Encapsulation	M-015 Other organic materials	40.004	mg	supplier	mold compound	Epoxy Resin	29690-82-2		3.560	mg	88991	46536	
				supplier	mold compound	Phenol Resin	25068-38-6		2.173	mg	54320	28405	
				supplier	mold compound	Silica, vitreous	60676-86-0		33.879	mg	846890	442862	
				supplier	mold compound	Carbon black	1333-86-4		0.218	mg	5449	2850	
				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.174	mg	4350	2275	
connections coating	Solder	0.650	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.650	mg	1000000	8497	