



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-07-05
<b>Company Unique ID</b>	NL 008751171801		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	Floriana SAN BIAGIO	<b>Representative Title</b>	AMS MD CHAMPION
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty Statement**

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**Legal Statement**

<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
	1F61*UJU4BC5	A	Z8GA	2018-07-05
Amount	UoM	Unit type	ST ECOPACK Grade	
79.52	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
3	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	4.85x3.9x1.52	8	gull wing	
Comment	61 HSOP 8L .150" PITCH 1.27 EXPOPAD; MDF valid for STPW12PHR			

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	1F61*U4U48C5				6000002.0	1000026.0	
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	3.183	mg	supplier	die	Silicon (Si)	7440-21-3		2.831	mg	889413	35601	
				supplier	metallization	Aluminium (Al)	7429-90-5		0.010	mg	3142	126	
				supplier	metallization	Copper (Cu)	7440-50-8		0.159	mg	49953	1999	
				supplier	passivation	Nickel (Ni)	7440-02-0		0.058	mg	18222	729	
				supplier	metallization	Platinum (Pt)	7440-06-4		0.016	mg	5027	201	
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	628	25	
				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	943	38	
				supplier	Passivation	Silicon Nitride	12033-89-5		0.008	mg	2513	101	
				supplier	Passivation	Silicon Oxide	7631-86-9		0.076	mg	23877	956	
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	628	25	
				supplier	back side metallization	Gold (Au)	7440-57-5		0.006	mg	1885	75	
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.011	mg	3456	138	
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.001	mg	314	13	
Leadframe	M-004 Copper and its alloys	33.406	mg	supplier	alloy	Copper(CU)	7440-50-8		31.131	mg	931898	391486	
				supplier	alloy	Iron(Fe)	7439-89-6		0.835	mg	24996	10501	
					JIG - R	alloy	Lead (Pb)	7439-92-1		0.003	mg	90	38
				supplier	alloy	Phosphorus(P)	7723-14-0		0.034	mg	1018	428	
				supplier	alloy	Zinc(Zn)	7440-66-6		0.067	mg	2006	843	
				supplier	alloy	Silver (Ag)	7440-22-4		1.336	mg	39993	16801	
Die attach	M-015 Other organic materials	0.616	mg	supplier	glue	Silver (Ag)	7440-22-4		0.517	mg	839286	6502	
				supplier	glue	Epoxy resin	29690-82-2		0.062	mg	100649	780	
				supplier	glue	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8		0.031	mg	50325	390	
				supplier	glue	Aromatic polyamine	Proprietary		0.006	mg	9740	75	
Bonding wires	M-004 Copper and its alloys	0.216	mg	supplier	wire	Copper(CU)	7440-50-8		0.216	mg	1000000	2716	
Encapsulation	M-015 Other organic materials	36.362	mg	supplier	Molding compound	Epoxy Resin	2969082-2		1.818	mg	49997	22862	
				supplier	Molding compound	Phenol Resin	25068-386		1.818	mg	49997	22862	
				supplier	Molding compound	Silica(Amorphous) A	60676-86-0		29.090	mg	800011	365820	
				supplier	Molding compound	Silica(Amorphous) B	7631-86-9		3.273	mg	90012	41159	
				supplier	Molding compound	Carbon Black	1333-86-4		0.363	mg	9983	4565	
Finishing	M-011 Other inorganic materials	5.739	mg	supplier	Connection Coating	Tin(Sn)	7440-31-5		5.739	mg	1000000	72171	