



## 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>	2018-10-08
<b>Company Unique ID</b>	NL 008751171B01		
<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

**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
	RZC4*UX56ABE	A	SH1A	2018-10-08
Amount	UoM	Unit type	ST ECOPACK Grade	
320	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	250	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	
SMC	6.4 x6x2.2	5	S bend	
Comment	C4 PPACK 5 LEADS; MDF valid for LDL112PT-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	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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	0.46		1422

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	RZC4*UX56ABE			5999997.0	1000001.0	
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		0.552	mg	941980	1725
				supplier	metallization	Aluminium (Al)	7429-90-5		0.006	mg	10239	19
				supplier	metallization	Tungsten (W)	7440-33-7		0.005	mg	8532	16
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	1706	3
				supplier	Passivation	Silicon Oxide	7631-86-9		0.010	mg	17065	31
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.002	mg	3413	6
				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	1706	3
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.003	mg	5119	9
Leadframe	M-004 Copper and its alloys	158.865	mg	supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.006	mg	10239	19
				supplier	alloy	Copper (Cu)	7440-50-8		158.659	mg	998703	495809
				supplier	alloy	Iron (Fe)	7439-89-6		0.073	mg	460	228
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.133	mg	837	416
Soft solder	Solder	0.477	mg	SVHC	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	0.455	mg	953878	1422
				supplier	solder	Silver (Ag)	7440-22-4		0.012	mg	25157	38
				supplier	solder	Tin (Sn)	7440-31-5		0.010	mg	20964	31
Bonding wires	M-011 Other inorganic materials	0.130	mg	supplier	wire	Copper (Cu)	7440-50-8		0.130	mg	1000000	406
Encapsulation	M-011 Other inorganic materials	159.360	mg	supplier	mold compound	Silica, vitreous	60676-86-0		139.440	mg	875000	435750
				supplier	mold compound	Tetramethyl-biphenyl-diy-bis oxymethylene-b	85954-11-6		6.374	mg	39997	19919
				supplier	mold compound	Epoxy Resin	Proprietary		4.781	mg	30001	14941
				supplier	mold compound	phenol resin	Proprietary		7.968	mg	50000	24900
				supplier	mold compound	Carbon black	1333-86-4		0.797	mg	5001	2491
connections coating	Solder	0.582	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.582	mg	1000000	1819