



## 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>	2018-09-18
<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
	CRO7*U324AE6	A	SH1A	2018-09-18
	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
3	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	4.9x3.9x1.75	8	gull wing	
Comment	07 SO 08 .15 JEDEC; MDF valid for L6387ED013TR			

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
;				0
;				
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	CRO7*U324AE6				5000001.0	1000006.0	
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	7.608	mg	supplier	die	Silicon (Si)	7440-21-3		3.520	mg	462671	44000	
				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	657	63	
				supplier	Passivation	Silicon Nitride	12033-89-5		0.023	mg	3023	288	
				supplier	Passivation	Silicon Oxide	7631-86-9		0.031	mg	4075	388	
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.112	mg	14721	1400	
				supplier	back side metallization	Silver (Ag)	7440-22-4		3.917	mg	514853	48963	
Leadframe	M-004 Copper and its alloys	29.733	mg	supplier	alloy	Copper (Cu)	7440-50-8		38.830	mg	969630	360375	
				supplier	alloy	Iron (Fe)	7439-89-6		0.678	mg	22803	8475	
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.041	mg	1379	513	
				supplier	alloy	Zinc (Zn)	7440-66-6		0.036	mg	1211	450	
				supplier	metallization	Nickel (Ni)	7440-02-0		0.134	mg	4507	1675	
	M-006 Nickel and its alloys	supplier	metallization	Palladium (Pd)	7440-05-3		0.004	mg	135	50			
	M-008 Precious metals	supplier	metallization	Gold (Au)	7440-57-5		0.007	mg	235	88			
	M-008 Precious metals	supplier	metallization	Silver (Ag)	7440-22-4		0.003	mg	101	38			
	Die attach	M-015 Other organic materials	0.999	mg	supplier	glue	Silver (Ag)	7440-22-4		0.877	mg	877878	10963
					supplier	glue	Isobornyl Methacrylate	7534-94-3		0.050	mg	50050	625
supplier					glue	Acrylate resin	5888-33-5		0.050	mg	50050	625	
supplier					glue	Methyl acrylate polymer	87320-05-6		0.020	mg	20020	250	
supplier					glue	Epoxyhexylethyltrimethoxysilane	3388-04-3		0.001	mg	1001	13	
supplier					glue	Tert-Butyl peroxy(2-ethyl)-hexanoate	3006-82-4		0.001	mg	1001	13	
Bonding wires	M-004 Copper and its alloys	0.054	mg	supplier	wire	Copper (Cu)	7440-50-8		0.054	mg	1000000	675	
Encapsulation	M-015 Other organic materials	41.606	mg	supplier	mold compound	Silica, vitreous	60676-86-0		36.031	mg	866005	450388	
				supplier	mold compound	Epoxy Resin	85954-11-6		3.121	mg	75013	39013	
				supplier	mold compound	Phenol Resin	26834-02-6		2.080	mg	49993	26000	
				supplier	mold compound	Carbon black	1333-86-4		0.208	mg	4999	2600	
				supplier	mold compound	Bismuth compound	7440-69-9		0.166	mg	3990	2075	