



## 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

*\* : Required Field*


Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2017-05-02
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	FLORIANA SAN BIAGIO	<b>Representative Title</b>	AMG 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
<b>Legal Statement</b>	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
	CCW4*U1M3AAA	A	BO2A	2017-05-02
Amount	UoM	Unit type	ST ECOPACK Grade	
81.00	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	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	4.85x3.9x1.52	10	gull wing	
Comment	Package:W4 SSOP 10L 3.9 BODY 1 PITCH; MDF valid for HVLED001ATR			

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-12th January 2017				
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 :						Mfr Item Name	CCW4*U1M3AAA					
note : Substance present with less 0.001mg will not be declared in this document												
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	3.338	mg	supplier	die	Silicon (Si)	7440-21-3		3.229	mg	967346	39864
				supplier	metallization	Aluminium (Al)	7429-90-5		0.015	mg	4494	185
				supplier	metallization	Tungsten (W)	7440-33-7		0.020	mg	5992	247
				supplier	Passivation	Silicon Nitride	12033-89-5		0.005	mg	1498	62
				supplier	Passivation	Silicon Oxide	7631-86-9		0.052	mg	15578	642
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	599	25
				supplier	back side metallization	Gold (Au)	7440-57-5		0.005	mg	1498	62
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.009	mg	2696	111
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.001	mg	300	12
				supplier	alloy	Copper (Cu)	7440-50-8		22.770	mg	971168	281111
Leadframe	Copper & its alloys	23.446	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.536	mg	22861	6617
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.032	mg	1365	395
				supplier	alloy	Zinc (Zn)	7440-66-6		0.028	mg	1194	346
				supplier	metallization	Nickel (Ni)	7440-02-0		0.074	mg	3156	914
				supplier	metallization	Palladium (Pd)	7440-05-3		0.002	mg	85	25
				supplier	metallization	Gold (Au)	7440-57-5		0.002	mg	85	25
				supplier	metallization	Silver (Ag)	7440-22-4		0.002	mg	85	25
				supplier	glue	Silver (Ag)	7440-22-4		0.812	mg	877838	10025
				supplier	glue	Isobornyl Methacrylate	7534-94-3		0.046	mg	49730	568
				supplier	glue	Urethane Methacrylate Resin	5888-33-5		0.046	mg	49730	568
Die attach	Other Organic Materials	0.925	mg	supplier	glue	Acrylate polymer	87320-05-6		0.019	mg	20541	235
				supplier	glue	Epoxy cyclohexylethyltrimethoxysilane	3388-04-3		0.001	mg	1081	12
				supplier	glue	tert-Butyl peroxy(2-ethyl)-hexanoate	3006-82-4		0.001	mg	1081	12
				supplier	wire	Copper (Cu)	7440-50-8		0.098	mg	1000000	1210
				supplier	mold compound	Silica, vitreous	60676-86-0		46.065	mg	865981	568704
				supplier	mold compound	Epoxy Resin	25068-38-6		3.990	mg	75008	49259
				supplier	mold compound	Phenol Resin	29690-82-2		2.660	mg	50006	32840
				supplier	mold compound	Carbon black	1333-86-4		0.266	mg	5001	3284
				supplier	mold compound	Bismuth compound	7440-69-9		0.213	mg	4004	2630