



## 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>	2016-11-22
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	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>	Emilio Castelli/R Bonaccorso	<b>Representative Title</b>	ADG 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
L4949EP-E	J5Z7*W023FB6	A	MU1A	2016-11-22
Amount		UoM	Unit type	ST ECOPACK Grade
500.00		mg	Each	ECOPACK® 1

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	Nicke/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	12.8x7.5x2.3	20	flat	
Comment				

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-20th June 2016				
Query				Response
The product 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	JS27*W023FB6					
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	2.784	mg	supplier	die	Silicon (Si)	7440-21-3		2.713	mg	974497	5426
				supplier	metallization	Aluminium (Al)	7429-90-5		0.023	mg	8261	46
				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.012	mg	4310	24
				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.015	mg	5388	30
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	718	4
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.019	mg	6825	38
Leadframe	Copper & its alloys	174.281	mg	supplier	alloy	Copper (Cu)	7440-50-8		169.255	mg	971162	338510
				supplier	alloy	Iron (Fe)	7439-89-6		3.981	mg	22842	7962
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.240	mg	1377	480
				supplier	alloy	Zinc (Zn)	7440-66-6		0.208	mg	1193	416
				supplier	metallization	Nickel (Ni)	7440-02-0		0.545	mg	3127	1090
				supplier	metallization	Palladium (Pd)	7440-05-3		0.018	mg	103	36
				supplier	metallization	Gold (Au)	7440-57-5		0.017	mg	98	34
				supplier	metallization	Silver (Ag)	7440-22-4		0.017	mg	98	34
Die attach	Other Organic Materials	0.666	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		0.513	mg	770270	1026
				supplier	glue or tape	Epoxy Cresol Novolak	29690-82-2		0.150	mg	225225	300
				supplier	glue or tape	1-isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.003	mg	4505	6
Bonding wire	Precious metals	0.217		supplier	wire	Gold (Au)	7440-57-5		0.217	mg	1000000	434
Encapsulation	Other Organic Materials	322.052	mg	supplier	mold compound	Silica, vitreous	60676-86-0		257.641	mg	799998	515282
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		22.544	mg	70001	45088
				supplier	mold compound	Phenol resin	9003-35-4		12.882	mg	40000	25764
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		19.323	mg	60000	38646
				supplier	mold compound	Antimony Trioxide	1309-64-4		3.865	mg	12001	7730
				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		4.831	mg	15001	9662
				supplier	mold compound	Carbon Black	1333-86-4		0.966	mg	3000	1932