



## 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>	2016-07-21
<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>	Laurent TOSI	<b>Representative Title</b>	MMS MD CHAMPION
<b>Representative Phone *</b>	33 442 685 795	<b>Representative Email *</b>	<a href="mailto:laurent.tosi@st.com">laurent.tosi@st.com</a>
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/online_tech_support.html">http://www.st.com/web/en/support/online_tech_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
M24LR64E-RDW6T/2	PT6P*2EF31UB	A	3068	2016-07-21
	Amount	UoM	Unit type	ST ECOPACK Grade
	34.00	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	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	
TSSOP	NAC	8	L bend	
Comment	TSSOP 8 BODY 4.4 PITCH 0.65			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	<b>true</b>
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				<b>true</b>
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	PT6P*2EF31UB					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	1.721	mg	supplier	die	Silicon (Si)	7440-21-3		1.651	mg	959326	48559
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.006	mg	3486	176
die (s)				supplier	metallization	Copper (Cu)	7440-50-8		0.006	mg	3486	176
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	581	29
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	581	29
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.004	mg	2324	118
die (s)				supplier	passivation	Indium Tin oxide ( In2O3:SnO2 )	50926-11-9		0.052	mg	30215	1529
Lead-frame	Other inorganic materials	14.517	mg	supplier	alloy	Copper (Cu)	7440-50-8		14.147	mg	974500	416079
Lead-frame				supplier	alloy	Iron (Fe)	7439-89-6		0.341	mg	23460	10017
Lead-frame				supplier	alloy	Zinc (Zn)	7440-66-6		0.017	mg	1200	512
Lead-frame				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.012	mg	840	359
Lead-frame Coating	Other inorganic materials	0.062	mg	supplier	coating	Nickel (Ni)	7440-02-0		0.058	mg	942580	1708
Lead-frame Coating				supplier	coating	Palladium (Pd)	7440-05-3		0.002	mg	29665	54
Lead-frame Coating				supplier	coating	Gold (Au)	7440-57-5		0.002	mg	27755	50
Die Attach	Other inorganic materials	0.049	mg	supplier	glue or soft solder	Poly(tetrafluoroethylene)	9002-84-0		0.025	mg	510000	735
Die Attach				supplier	glue or soft solder	Synthetic resin	Proprietary		0.010	mg	200000	288
Die Attach				supplier	glue or soft solder	Bismaleimide resin	Proprietary		0.010	mg	200000	288
Die Attach				supplier	glue or soft solder	Titanium dioxide	13463-67-7		0.002	mg	40000	58
Die Attach				supplier	glue or soft solder	Silica, amorphous	7631-86-9		0.002	mg	50000	72
Wires	Other inorganic materials	0.019	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.019	mg	1000000	546
Encapsulation	Other inorganic materials	17.632	mg	supplier	Moulding Compound	Epoxy Resin	Proprietary		1.434	mg	81340	42183
Encapsulation				supplier	Moulding Compound	Phenol Resin	Proprietary		0.956	mg	54227	28122
Encapsulation				supplier	Moulding Compound	Silica, vitreous	60676-86-0		15.070	mg	854672	443232
Encapsulation				supplier	Moulding Compound	Carbon black	1333-86-4		0.096	mg	5423	2812
Encapsulation				supplier	Moulding Compound	Bismuth (Bi)	7440-69-9		0.076	mg	4338	2250
Finishing	Other inorganic materials	0.001	mg	supplier	connections coating	Nickel (Ni)	7440-02-0		0.001	mg	940951	17
Finishing				supplier	connections coating	Palladium (Pd)	7440-05-3		0.000	mg	30507	1
Finishing				supplier	connections coating	Gold (Au)	7440-57-5		0.000	mg	28542	1