



## 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

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-03-20
<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>	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**


While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

<b>Legal Statement</b>			
<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
	ASQ7*MV61BE6	A	Z7GA	2018-03-20
Amount	UoM	Unit type	ST ECOPACK Grade	
150.00	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		

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	
ting is used or other bulk terminat	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	3.9x9.85x1.52	16	gull wing	
Comment	Q7 SO 16 .15 TO JEDEC MS-012; MDF valid for VIPER16HDTR			

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-15th January 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

Material Composition Declaration						Mfr Item Name	ASQ7*MV61BE6					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	Other inorganic materials	3.638	mg	supplier	die	Silicon (Si)	7440-21-3		3.513	mg	965640	23420
				supplier	metallization	Aluminium (Al)	7429-90-5		0.041	mg	11270	273
				supplier	metallization	Tungsten (W)	7440-33-7		0.008	mg	2199	53
				supplier	Passivation	Silicon Nitride	12033-89-5		0.013	mg	3573	87
				supplier	Passivation	Silicon Oxide	7631-86-9		0.034	mg	9346	227
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	275	7
				supplier	back side metallization	Gold (Au)	7440-57-5		0.003	mg	825	20
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.015	mg	4123	100
Leadframe	Copper & its alloys	32.078	mg	supplier	polymer die coating	PIX1 Gamima-butylolactone	96-48-0		0.010	mg	2749	67
				supplier	alloy	Copper (Cu)	7440-50-8		31.135	mg	970603	207567
				supplier	alloy	Iron (Fe)	7439-89-6		0.732	mg	22819	4880
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.043	mg	1340	287
				supplier	alloy	Zinc (Zn)	7440-66-6		0.038	mg	1185	253
				supplier	metallization	Nickel (Ni)	7440-02-0		0.118	mg	3679	787
				supplier	metallization	Palladium (Pd)	7440-05-3		0.004	mg	125	27
				supplier	metallization	Gold (Au)	7440-57-5		0.004	mg	125	27
Die attach	Other Organic Materials	0.495	mg	supplier	metallization	Silver (Ag)	7440-22-4		0.004	mg	125	27
				supplier	glue	Silver (Ag)	7440-22-4		0.406	mg	820202	2707
				supplier	glue	Acrylate resins	7534-94-3		0.059	mg	119192	393
				supplier	glue	Heterocyclic organic compound	3006-93-7		0.014	mg	28283	93
				supplier	glue	Fluoroaliphatic Polymeric Esters	1017237-78-3		0.002	mg	4040	13
				supplier	glue	Treated silica	Proprietary		0.014	mg	28283	93
				supplier	wire	Gold (Au)	7440-57-5		0.213	mg	1000000	1420
				supplier	mold compound	Silica, vitreous	60676-86-0		100.743	mg	887002	671620
Encapsulation	Other Organic Materials	113.577	mg	supplier	mold compound	epoxy resin	29690-82-2		9.087	mg	80007	60580
				supplier	mold compound	Phenol resin	25068-38-6		3.408	mg	30006	22720
				supplier	mold compound	carbon black	1333-86-4		0.339	mg	2985	2260