



## 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>	2017-07-14
<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

**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 omprehensive 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
	GSQ7*MV39BB6	A	Z7GA	2017-07-14
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	
tin 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	Package: Q7 SO 16 .15 TO JEDEC MS-012; MDF valid for HVLED805TR			

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	GSQ*MV398B6									
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	4.260	mg	supplier	die	Silicon (Si)	7440-21-3		4.113	mg	965493	27420				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.049	mg	11502	327				
				supplier	metallization	Tungsten (W)	7440-33-7		0.009	mg	2113	60				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.015	mg	3521	100				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.039	mg	9155	260				
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	235	7				
				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	939	27				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.018	mg	4225	120				
				supplier	polymer die coating	PIX1 Gamima-butylolactone	96-48-0		0.012	mg	2817	80				
				Leadframe	Copper & its alloys	31.941	mg	supplier	alloy	Copper (Cu)	7440-50-8		31.002	mg	970602	206680
supplier	alloy	Iron (Fe)	7439-89-6						0.729	mg	22823	4860				
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.043	mg	1346	287				
supplier	alloy	Zinc (Zn)	7440-66-6						0.038	mg	1190	253				
supplier	metallization	Nickel (Ni)	7440-02-0						0.117	mg	3663	780				
supplier	metallization	Palladium (Pd)	7440-05-3						0.004	mg	125	27				
supplier	metallization	Gold (Au)	7440-57-5						0.004	mg	125	27				
supplier	metallization	Silver (Ag)	7440-22-4						0.004	mg	125	27				
Die attach	Other Organic Materials	0.493	mg					supplier	glue	Silver (Ag)	7440-22-4		0.404	mg	819473	2693
								supplier	glue	Acrylate resins	7534-94-3		0.059	mg	119675	393
				supplier	glue	Heterocyclic organic compound	3006-93-7		0.014	mg	28398	93				
				supplier	glue	Fluoroaliphatic Polymeric Esters	1017237-78-3		0.002	mg	4057	13				
				supplier	glue	Treated silica	Proprietary		0.014	mg	28398	93				
				supplier	wire	Gold (Au)	7440-57-5		0.212	mg	1000000	1413				
Bonding wires	Precious metals	0.212	mg	supplier	wire	Gold (Au)	7440-57-5		0.212	mg	1000000	1413				
				supplier	mold compound	Silica, vitreous	60676-86-0		100.314	mg	887005	668760				
Encapsulation	Other Organic Materials	113.093	mg	supplier	mold compound	epoxy resin	25068-38-6		9.048	mg	80005	60320				
				supplier	mold compound	Phenol resin	29690-82-2		3.393	mg	30002	22620				
				supplier	mold compound	carbon black	1333-86-4		0.338	mg	2989	2253				