



## Materials Declaration Form

<b>IPC Form Type *</b>	<b>1752</b> Distribute	<b>Version</b>	<b>2</b>
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D <i>* : Required Field</i>

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2016-05-03</b>
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	<b>Floriana San Biagio</b>	<b>Representative Title</b>	<b>AMG MD CHAMPION</b>
<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>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
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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
	IAO7*0393BC6	A	Z6MA	2016-05-03
Amount	UoM	Unit type	ST ECOPACK Grade	
80.00	mg	Each	ECOPACK® 3	
	Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte, annealed	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
DSO	4.85x3.9x1.52	8	gull wing	
Comment	Package: 07 SO 08 .15 JEDEC; MDF valid for LM293DT			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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-17th December 2015				
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	IAO7*03938C6					
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	0.549	mg	supplier	die	Silicon (Si)	7440-21-3		0.539	mg	981785	6734
				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	9108	63
				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	3643	25
				supplier	Passivation	Silicon Oxide	7631-86-9		0.003	mg	5464	38
Leadframe	Copper & its alloys	39.136	mg	supplier	alloy	Copper (Cu)	7440-50-8		37.449	mg	956894	468110
				supplier	alloy	Iron (Fe)	7439-89-6		0.903	mg	23073	11288
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.012	mg	307	150
				supplier	alloy	Zinc (Zn)	7440-66-6		0.046	mg	1175	575
Die attach	Other Organic Materials	1.131	mg	supplier	metallization	Silver (Ag)	7440-22-4		0.726	mg	18551	9075
				supplier	glue	Silver (Ag)	7440-22-4		0.849	mg	750663	10613
				supplier	glue	Epoxy Cresol Novolak	29690-82-2		0.279	mg	246684	3488
				supplier	glue	tert-butanol	75-65-0		0.001	mg	885	13
Bonding wires	Other inorganic materials	0.078	mg	supplier	glue	1-isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.002	mg	1768	25
				supplier	wire	Copper (Cu)	7440-50-8		0.077	mg	987179	963
				supplier	wire	Palladium (Pd)	7440-05-3		0.001	mg	12821	13
				supplier	wire	Palladium (Pd)	7440-05-3		0.001	mg	12821	13
Encapsulation	Other Organic Materials	38.219	mg	supplier	mold compound	Phenol Resin	205830-20-2		1.529	mg	40006	19113
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		1.147	mg	30011	14338
				supplier	mold compound	epoxy resin	Proprietary		1.147	mg	30011	14338
				supplier	mold compound	carbon black	1333-86-4		0.076	mg	1989	950
connections coating	Solder	0.887	mg	supplier	mold compound	silica vitreous	60676-86-0		34.320	mg	897983	429000
				supplier	solder alloy	Tin (Sn)	7440-31-5		0.887	mg	1000000	11088