



## 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>Sectionals *</b>	A-D <i>* : Required Field</i>

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2013-02-08</b>
<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>	Antonella Lanzafame	<b>Representative Title</b>	AMS/IPD Materials Declaration 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/internet/com/support/online_tech_support.jsp">http://www.st.com/internet/com/support/online_tech_support.jsp</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
TSV912HYDT	FDO7*V912ARY	A	BO2A	2013-02-08
Amount	UoM	Unit type	ST ECOPACK Grade	
77.50	mg	Each	ECOPACK® 1	

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	
Not Applicable ; if coating is used o	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	4.90,3.9,1.75	8	gull wing	
Comment	SO 08 .15 JEDEC			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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-19 Dec 2012				
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	FDO7*V912ARY					
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	0.783	mg	supplier	die	Silicon (Si)	7440-21-3		0.756	mg	965517	9755
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.007	mg	8940	90
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1277	13
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	1277	13
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.002	mg	2554	26
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.016	mg	20434	206
Leadframe	Copper & its alloys	28.781	mg	supplier	alloy	Copper (Cu)	7440-50-8		27.82	mg	966610	358968
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.654	mg	22723	8439
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.039	mg	1355	503
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.034	mg	1181	439
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.214	mg	7435	2761
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.014	mg	486	181
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.006	mg	208	77
Soft solder	Solder	0.296	mg	supplier	solder	Silver (Ag)	7440-22-4		0.222	mg	750000	2865
Soft solder				supplier	solder	Epoxy Cresol Novolak	29690-82-2		0.073	mg	246622	942
Soft solder				supplier	solder	1-isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.001	mg	3378	13
Bonding wire	Other inorganic materials	0.116	mg	supplier	wire	Gold (Au)	7440-57-5		0.116	mg	1000000	1497
encapsulation	Other Organic Materials	47.524	mg	supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		4.659	mg	98035	60116
encapsulation				supplier	mold compound	phenol resin	9003-35-4		2.329	mg	49007	30052
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.466	mg	9806	6013
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		37.274	mg	784320	480955
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		0.932	mg	19611	12026
encapsulation				JIG I	mold compound	Brominated epoxy resin	68928-70-1		0.932	mg	19611	12026
encapsulation				JIG I	mold compound	Brominated epoxy resin	68928-70-1		0.932	mg	19611	12026