



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2014-09-11
Contact Name *	Refer to "Supplier Comment" section	Contact Title	Refer to "Supplier Comment" section
Contact Phone *	Refer to "Supplier Comment" section	Contact Email *	Refer to "Supplier Comment" section
Authorized Representative *	Giovanni Giacopello	Representative Title	AMS & IPD Materials Declaration Champion
Representative Phone *	Refer to "Supplier Comment" section	Representative Email *	Refer to "Supplier Comment" section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/internet/com/support/online_tech_support.jsp		

Uncertainty Statement

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Legal Statement

Supplier Acceptance *	true	Legal Declaration *	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
	WDO7*VA16AAJ	A	ZY1A	2014-09-11
Amount	UoM	Unit type	ST ECOPACK Grade	
80.00	mg	Each	ECOPACK® 2	

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	
Not Applicable ; if coating is used o	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
DSO	4.85 - 3.9 - 1.52	8	gull wing	
Comment	Package: SO 08 .15 JEDEC; MDF valid for TS21221DT			

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-16th June 2014				
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	WDO7*VA16AAJ					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or Dies	Other inorganic materials	0.649	mg	supplier	die	Silicon (Si)	7440-21-3		0.621	mg	956857	7763
Die or Dies				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	7704	63
Die or Dies				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1541	13
Die or Dies				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	1541	13
Die or Dies				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.002	mg	3082	25
Die or Dies				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.011	mg	16949	138
Die or Dies				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.008	mg	12327	100
Leadframe	Copper & its alloys	40.138	mg	supplier	alloy	Copper (Cu)	7440-50-8		38.692	mg	963974	483650
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.933	mg	23245	11663
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.048	mg	1196	600
Leadframe				supplier	alloy	Phosphorus (P)	12185-10-3		0.012	mg	299	150
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.44	mg	10962	5500
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.009	mg	224	113
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.004	mg	100	50
Die attach	Other inorganic materials	0.332	mg	supplier	glue or tape	Epoxy resin A	9003-36-5		0.023	mg	69277	288
Die attach				supplier	glue or tape	Epoxy resin B	68475-94-5		0.013	mg	39157	163
Die attach				supplier	glue or tape	Silver(Ag)	7440-22-4		0.257	mg	774096	3213
Die attach				supplier	glue or tape	Lactone	96-48-0		0.013	mg	39157	163
Die attach				supplier	glue or tape	Polyoxypropylenediamine	9046-10-0		0.013	mg	39157	163
Die attach				supplier	glue or tape	2,6-Diglycidyl phenyl allyl ether oligomer	proprietary		0.013	mg	39157	163
Bonding wire	Precious metals	0.1	mg	supplier	wire	Gold (Au)	7440-57-5		0.1	mg	1000000	1250
encapsulation	Other inorganic materials	38.781	mg	supplier	mold compound	Epoxy Resin	proprietary		2.909	mg	75011	36363
encapsulation				supplier	mold compound	Silica fused (SiO2)	60676-86-0		33.351	mg	859983	416888
encapsulation				supplier	mold compound	Phenol Resin	proprietary		1.551	mg	39994	19388
encapsulation				supplier	mold compound	Epoxy Cresol Novolac	29690-82-2		0.776	mg	20010	9700
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.194	mg	5002	2425