



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 *	2015-02-20
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/web/en/support/support.html		

Uncertainty Statement


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Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	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
	TXDP*6D4SAC2	A	SH1A	2015-02-20
Amount	UoM	Unit type	ST ECOPACK Grade	
360.00	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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	6.5x6.1x2.3	3	gull wing	
Comment	Package: TO 252 DPAK; MDF valid for STD130N4F6AG			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
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	true
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : REACH-17th December 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	TXDP*6D4SAC2					
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	2.616	mg	supplier	die	Silicon (Si)	7440-21-3		2.344	mg	896024	6511
Die or Dies				supplier	metallization	Aluminium (Al)	7429-90-5		0.130	mg	49694	361
Die or Dies				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	382	3
Die or Dies				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.031	mg	11850	86
Die or Dies				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.046	mg	17584	128
Die or Dies				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	1147	8
Die or Dies				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.045	mg	17202	125
Die or Dies				supplier	back side metallization	Silver (Ag)	7440-22-4		0.016	mg	6116	44
Leadframe	Copper & its alloys	166.107	mg	supplier	alloy	Copper (Cu)	7440-50-8		164.687	mg	991451	457464
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.165	mg	993	458
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.049	mg	295	136
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		1.199	mg	7218	3331
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.007	mg	42	19
Soft solder	Solder	3.670	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	3.505	mg	955041	9736
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.092	mg	25068	256
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.073	mg	19891	203
Bonding wire	Other inorganic materials	1.501	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.501	mg	1000000	4169
encapsulation	Other inorganic materials	185.061	mg	supplier	mold compound	Silica, vitreous	60676-86-0		148.048	mg	799996	411244
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		12.954	mg	69999	35983
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		7.403	mg	40003	20564
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		11.104	mg	60002	30844
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		2.221	mg	12001	6169
encapsulation				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		2.776	mg	15000	7711
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.555	mg	2999	1542
connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	2903