



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2014-05-22
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 *	Giuseppe Vitali Palma	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
	A7D2*TYU028V	A	SH1A	2014-05-22
Amount	UoM	Unit type	ST ECOPACK Grade	
1380.00	mg	Each	ECOPACK® 1	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	10.2X9.15X4.5	1	gull wing	
Comment	Package: D2PAK			

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)	true
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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : REACH-16th December 2013				
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	A7D2*TYU028V					
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	18.219	mg	supplier	die	Silicon (Si)	7440-21-3		17.042	mg	935397	12349
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.658	mg	36116	477
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.015	mg	823	11
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.024	mg	1317	17
die (s)				supplier	metallization	Nickel (Ni)	7440-02-0		0.072	mg	3952	52
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.097	mg	5324	70
die (s)				supplier	passivation	Esterfied polyamid	63428-83-1		0.103	mg	5653	75
die (s)				supplier	passivation	Tetraethylene glycol dimethacrylate	109-17-1		0.011	mg	604	8
die (s)				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.066	mg	3623	48
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.023	mg	1262	17
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.108	mg	5928	78
Leadframe	Copper & its alloys	785.556	mg	supplier	alloy	Copper (Cu)	7440-50-8		784.436	mg	998574	568432
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.785	mg	999	569
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.236	mg	300	171
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.092	mg	117	67
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.007	mg	9	5
Soft solder	Other Organic Materials	11.186	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	10.682	mg	954944	7741
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.28	mg	25031	203
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.224	mg	20025	162
Bonding wire	Other inorganic materials	2.116	mg	supplier	wire	Aluminium (Al)	7429-90-5		2.116	mg	1000000	1533
encapsulation	Other Organic Materials	561.878	mg	supplier	mold compound	Silica, vitreous	60676-86-0		449.502	mg	799999	325726
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		39.331	mg	69999	28501
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		22.475	mg	40000	16286
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		33.713	mg	60001	24430
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		6.743	mg	12001	4886
encapsulation				JIG I	mold compound	Brominated Epoxy Resin	40039-93-8		8.428	mg	15000	6107
encapsulation				supplier	mold compound	Carbon black	1333-86-4		1.686	mg	3001	1222
connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	757