



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 *	02/09/2015
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

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
	CDWB*0322C55	A	ZS1A	02/09/2015
Amount	UoM	Unit type	ST ECOPACK Grade	
14.000	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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
SOT	2.9X1.625X1.175	5	gull wing	
Comment	Package: SOT 23 - 6L; MD valid for DSL03-022SC6			

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	CDWB*0322C55					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Silicon die #1	Other inorganic materials	0.245	mg	supplier	Silicon die	Silicon (Si)	7440-21-3		0.245	mg	1000000	17500
Silicon die #2		0.027	mg	supplier	Silicon die	Silicon (Si)	7440-21-3		0.027	mg	1000000	1929
Silicon die #3		0.027	mg	supplier	Silicon die	Silicon (Si)	7440-21-3		0.027	mg	1000000	1929
Silicon die #4		0.027	mg	supplier	Silicon die	Silicon (Si)	7440-21-3		0.027	mg	1000000	1929
Silicon die #5		0.027	mg	supplier	Silicon die	Silicon (Si)	7440-21-3		0.027	mg	1000000	1929
Silicon die		0.011	mg	supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	181818	143
Silicon die				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	90909	71
Silicon die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.002	mg	181818	143
Silicon die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.006	mg	545455	429
Lead frame	Copper and its alloy	7.333	mg	supplier	Alloy	Copper	7440-50-8		7.069	mg	963998	504929
Lead frame				supplier	Alloy	Iron	7439-89-6		0.162	mg	22092	11571
Lead frame				supplier	Alloy	Phosphorus	12185-10-3		0.002	mg	273	143
Lead frame				supplier	Alloy	Zinc	7440-66-6		0.009	mg	1227	643
Lead frame				supplier	Alloy	Nickel	7440-02-0		0.083	mg	11319	5929
Lead frame				supplier	Alloy	Palladium	7440-05-3		0.007	mg	955	500
Lead frame				supplier	Alloy	Gold	7440-57-5		0.001	mg	136	71
Die attach	Other organic materials	0.077	mg	supplier	Glue	Silver	7440-22-4		0.056	mg	727273	4000
Die attach				supplier	Glue	methylene diacrylate	42594-17-2		0.011	mg	142857	786
Die attach				supplier	Glue	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.005	mg	64935	357
Die attach				supplier	Glue	Polymer of Polybutadiene + Anhydride	Proprietary		0.002	mg	25974	143
Die attach				supplier	Glue	Palladium (Pd)	7440-05-3		0.002	mg	25974	143
Die attach				supplier	Glue	Bis(alpha-dimethylbenzyl) peroxide	80-43-3		0.001	mg	12987	71
Bonding wire	Other inorganic materials	0.15	mg	supplier	Bonding wire	Cu	7440-50-8		0.147	mg	980000	10500
Bonding wire				supplier	Bonding wire	Palladium (Pd)	7440-05-3		0.003	mg	20000	214
Encapsulation	Other organic materials	6.076	mg	supplier	Molding compound	Epoxy Resin	9003-35-4		0.186	mg	30612	13286
Encapsulation				supplier	Molding compound	Biphenyl epoxy resin	85954-11-6		0.186	mg	30612	13286
Encapsulation				supplier	Molding compound	Phenol resin	Proprietary		0.279	mg	45918	19929
Encapsulation				supplier	Molding compound	Silica	60676-86-0		5.413	mg	890882	386643
Encapsulation				supplier	Molding compound	Carbon Black	1333-86-4		0.012	mg	1975	857