



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2015-08-05
<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>	Giovanni Giacobello	<b>Representative Title</b>	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>	true	<b>Legal Declaration *</b>	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
DSL05-024SC6	CDWB*CWU024A	A	ZS1A	2015-08-05
Amount	UoM	Unit type	ST ECOPACK Grade	
14.00	mg	Each	ECOPACK® 2	

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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	2.9 - 1.625 - 1.175	6	gull wing	
Comment	Package: SOT 23 - 6L			

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

QueryList : REACH-15th June 2015				
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*CWU024A						
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	Other inorganic materials	0.518	mg	supplier	die	Silicon (Si)	7440-21-3		0.48	mg	926641	34286	
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.019	mg	36680	1357	
Silicon die				supplier	metallization	Copper (Cu)	7440-50-8		0.004	mg	7722	286	
Silicon die				supplier	Passivation	Silicon Oxide	7631-86-9		0.01	mg	19305	714	
Silicon die				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	1931	71	
Silicon die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.004	mg	7722	286	
Leadframe	Copper and its alloy	7.181	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.917	mg	963236	494071	
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.162	mg	22560	11571	
Leadframe				supplier	alloy	Phosphorus (P)	12185-10-3		0.002	mg	279	143	
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1253	643	
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.083	mg	11558	5929	
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	975	500	
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	139	71	
Die attach	Other inorganic materials	0.038	mg	supplier	glue	Silver (Ag)	7440-22-4		0.031	mg	815789	2214	
Die attach				supplier	glue	Carbocyclic Acrylates	proprietary		0.004	mg	105263	286	
Die attach				supplier	glue	Bismaleimide resin	proprietary		0.001	mg	26316	71	
Die attach				supplier	glue	2-preponoic acid, 2-methyl	68586-19-6		0.001	mg	26316	71	
Die attach				supplier	glue	Additive	proprietary		0.001	mg	26316	71	
Die attach 2	Other inorganic materials	0.034	mg	supplier	glue	Silver (Ag)	7440-22-4		0.022	mg	647059	1571	
Die attach 2				supplier	glue	2-(2-Ethoxyethoxy)ethyl acetate	112-15-2		0.002	mg	58824	143	
Die attach 2				supplier	glue	Proylene carbonate	108-32-7		0.002	mg	58824	143	
Die attach 2				supplier	glue	3,3-Diamino diphenyl sulfone	599-61-1		0.002	mg	58824	143	
Die attach 2				supplier	glue	Urethane acrylate oligomer	Proprietary		0.002	mg	58824	143	
Die attach 2				supplier	glue	Rubber modified epoxy	Proprietary		0.002	mg	58824	143	
Die attach 2				supplier	glue	Epoxy resin	Proprietary		0.002	mg	58824	143	
Bonding wires	Other inorganic materials	0.15	mg	supplier	wires	Copper (Cu)	7440-50-8		0.15	mg	1000000	10714	
Encapsulation	Other Organic Materials	6.079	mg	supplier	mold compound	Epoxy Resin	25068-38-6		0.365	mg	60043	26071	
Encapsulation				supplier	mold compound	Phenol resin	29690-82-2		0.273	mg	44909	19500	
Encapsulation				supplier	mold compound	Silica	60676-86-0		5.429	mg	893075	387786	
Encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.012	mg	1974	857	