



## 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

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2013-08-29
<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 Giacopello	<b>Representative Title</b>	AMS & 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/web/en/support/online_tech_support.html">http://www.st.com/web/en/support/online_tech_support.html</a>		

**Uncertainty Statement**

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**Legal Statement**

<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
	ACWC*EAY5V32	A	ZS1A	2013-08-29
Amount	UoM	Unit type	ST ECOPACK Grade	
8.00	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, annealed	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
DSO	2.9 - 2 - 1.175	2	gull wing	
Comment	Package: SOT 23 SIMPLE DIODE			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	<b>true</b>
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-18 June 2012				
Query				Response
The product does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				<b>true</b>
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	ACWC*EAY5V32					
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	0.286	mg	supplier	Silicon Die	Silicon (Si)	7440-21-3		0.278	mg	972028	34750
Silicon Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.006	mg	20979	750
Silicon Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.002	mg	6993	250
Lead-frame	Other inorganic materials	2.351	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.27	mg	965547	283750
Lead-frame				supplier	alloy	Iron (Fe)	7439-89-6		0.053	mg	22544	6625
Lead-frame				supplier	alloy	Phosphorus (P)	12185-10-3		0.001	mg	425	125
Lead-frame				supplier	alloy	Zinc (Zn)	7440-66-6		0.003	mg	1276	375
Lead-frame				supplier	metallization	Silver (Ag)	7440-22-4		0.024	mg	10208	3000
Die attach	Other inorganic materials	0.029	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		0.024	mg	827586	3000
Die attach				supplier	glue or tape	Carbocyclic Acrylates	proprietary		0.003	mg	103448	375
Die attach				supplier	glue or tape	Bismaleimide resin	proprietary		0.001	mg	34483	125
Die attach				supplier	glue or tape	2-preponic acid, 2-methyl	68586-19-6		0.001	mg	34483	125
Bonding wire	Other inorganic materials	0.03	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.029	mg	1000000	3625
encapsulation	Other inorganic materials	5.105	mg	supplier	Molding compound	Silica, vitreous	60676-86-0		4.355	mg	853085	544375
encapsulation				supplier	Molding compound	phenolic resin	Proprietary		0.179	mg	35064	22375
encapsulation				supplier	Molding compound	epoxy resin	Proprietary		0.204	mg	39961	25500
encapsulation				supplier	Molding compound	Biphenyl epoxy resin	85954-11-6		0.102	mg	19980	12750
encapsulation				supplier	Molding compound	carbon black	1333-86-4		0.01	mg	1959	1250
encapsulation				supplier	Molding compound	Zinc hydroxide	20427-58-1		0.051	mg	9990	6375
encapsulation				supplier	Molding compound	Magnesium hydroxide	1309-42-8		0.204	mg	39961	25500
Finishing	Solder	0.2	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.2	mg	1000000	25000