



## 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>	2014-03-17
<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>	Giuseppe Vitali Palma	<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/internet/com/support/online_tech_support.jsp">http://www.st.com/internet/com/support/online_tech_support.jsp</a>		

**Uncertainty Statement**


While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

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
	A59U*UF38AL6	A	MU1A	2014-03-17
Amount	UoM	Unit type	ST ECOPACK Grade	
653.38	mg	Each	ECOPACK® 1	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
3	250	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy		
Not Applicable ; if coating is used o	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	15.46X7.55x2.28	29	gull wing	
Comment	Package: SO 24 .30 TO JEDEC MS-013AD. MD valid also for L6235D013TR			

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)	<b>false</b>
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	<b>false</b>
Product(s) does not meet EU RoHS requirements and is not under exemptions	<b>false</b>
Product(s) is obsolete, no information is available	<b>false</b>
Product(s) is unknown, no information is available	<b>false</b>
Exemption Id.	Description

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				<b>true</b>
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	A59U*UF38AL6					
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	14.632	mg	supplier	die	Silicon (Si)	7440-21-3		14.193	mg	969997	21722
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.107	mg	7313	164
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.012	mg	820	18
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.032	mg	2187	49
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.185	mg	12644	283
die (s)				supplier	passivation	Gamma-butyrolactone	96-48-0		0.062	mg	4237	95
die (s)				supplier	passivation	Polyhydroxyamide	55295-98-2		0.028	mg	1914	43
die (s)				supplier	passivation	Alcoxsilane	proprietary		0.002	mg	137	3
die (s)				supplier	passivation	Aryl Siliclic Acid	proprietary		0.001	mg	68	2
die (s)				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	68	2
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	137	3
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.007	mg	478	11
Leadframe	Copper & its alloys	198.054	mg	supplier	alloy	Copper (Cu)	7440-50-8		197.719	mg	998309	302610
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.091	mg	459	139
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.166	mg	838	254
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.071	mg	358	109
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.005	mg	25	8
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.002	mg	10	3
Die attach	Other Organic Materials	2.455	mg	supplier	glue	Silver (Ag)	7440-22-4		1.842	mg	750305	2819
Die attach				supplier	glue	Epoxy Cresol Novolak	29690-82-2		0.606	mg	246843	927
Die attach				supplier	glue	tert-butanol	75-65-0		0.002	mg	815	3
Die attach				supplier	glue	1-Isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.005	mg	2037	8
Bonding wire	Other inorganic materials	0.942		supplier	wire	Gold (Au)	7440-57-5		0.942	mg	1000000	1442
encapsulation	Other Organic Materials	437.297	mg	supplier	mold compound	Silica, vitreous	60676-86-0		349.837	mg	799999	535427
encapsulation	Other Organic Materials			supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		30.611	mg	70000	46850
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		17.492	mg	40000	26772
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		26.238	mg	60000	40157
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		5.248	mg	12001	8032
encapsulation				JIG 1	mold compound	Brominated Epoxy Resin	40039-93-8		6.559	mg	14999	10039
encapsulation				supplier	mold compound	Carbon black	1333-86-4		1.312	mg	3000	2008