



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 *	2017-03-29
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 *	Antonella Lanzafame	Representative Title	AMG 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/web/en/support/support.html		

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
L4973D3.3-013TR	A5Z7*U740DA6	A	MU1A	2017-03-29
Amount	UoM	Unit type	ST ECOPACK Grade	
534.52	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	Comment	
Not Applicable ; if coating is used	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	12.8X7.5X2.5	15	gull wing	
Comment	SO 20 .30 TO JEDEC MS-013			

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-12th January 2017				
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	ASZ7*U740DA6						
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	11.616	mg	supplier	die	Silicon (Si)	7440-21-3		11.353	mg	977359	21240	
die (s)				supplier	metallization	Aluminum (Al)	7429-90-5		0.065	mg	5596	122	
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.036	mg	3099	67	
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.153	mg	13171	286	
die (s)				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	86	2	
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	172	4	
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.006	mg	517	11	
Leadframe	Copper & its alloys	150.157	mg	supplier	alloy	Copper (Cu)	7440-50-8		149.884	mg	998182	280409	
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.069	mg	460	129	
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.126	mg	839	236	
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.071	mg	473	133	
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.005	mg	33	9	
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.002	mg	13	4	
Die attach	Other Organic Materials	2.052	mg	supplier	glue	Silver (Ag)	7440-22-4		1.539	mg	750000	2879	
Die attach				supplier	glue	Epoxy Cresol Novolak	29690-82-2		0.507	mg	247076	949	
Die attach				supplier	glue	tert-butanol	75-65-0		0.002	mg	975	4	
Die attach				supplier	glue	1-isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.004	mg	1949	7	
Bonding wire	Other inorganic materials	1.098	mg	supplier	wire	Gold (Au)	7440-57-5		1.098	mg	1000000	2054	
encapsulation	Other Organic Materials	369.597	mg	supplier	mold compound	Silica, vitreous	60676-86-0		295.677	mg	799998	553164	
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		25.872	mg	70001	48402	
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		14.784	mg	40000	27658	
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		22.176	mg	60000	41488	
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		4.435	mg	12000	8297	
encapsulation				JIG 1	mold compound	Brominated Epoxy Resin	40039-93-8		5.544	mg	15000	10372	
encapsulation				supplier	mold compound	Carbon black	1333-86-4		1.109	mg	3001	2075	