



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D *: Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2016-01-15
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 *	Floriana San Biagio	Representative Title	AMS 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
	1BYA*UW56AA6	A	ZY1A	2016-01-15
Amount	UoM	Unit type	ST ECOPACK Grade	
73.00	mg	Each	ECOPACK® 3	
Comment		ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used o	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
DSO	6.5x4.4x0.9	20	gull wing	
Comment	Package:TSSOP 20 BODY 4.4 PITCH 0.65; MDF valid for ST3222BTR			

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-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	1BYA*UW56AA6					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	2.906	mg	supplier	die	Silicon (Si)	7440-21-3		2.805	mg	965244	38425
Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.023	mg	7915	315
Die				supplier	passivation	Silicon Nitride (SiN)	12033-89-5		0.008	mg	2753	110
Die Attach				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.039	mg	13421	534
Die Attach				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.031	mg	10668	425
Leadframe	Copper & its alloys	34.699	mg	supplier	alloy	Copper (Cu)	7440-50-8		32.978	mg	950402	451753
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.843	mg	24295	11548
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.043	mg	1239	589
Leadframe				supplier	alloy	Phosphorus (P)	12185-10-3		0.011	mg	317	151
Leadframe				supplier	metallization	Silver(Ag)	7440-22-4		0.824	mg	23747	11288
Die attach	Other inorganic materials	0.774	mg	supplier	glue	Epoxy resin A	9003-36-5		0.055	mg	71059	753
Die attach				supplier	glue	Epoxy resin B	68475-94-5		0.031	mg	40052	425
Die attach				supplier	glue	Silver(Ag)	7440-22-4		0.595	mg	768734	8151
Die attach				supplier	glue	Lactone	96-48-0		0.031	mg	40052	425
Die attach				supplier	glue	Polyoxypropylenediamine	9046-10-0		0.031	mg	40052	425
Die attach				supplier	glue	2,6-Diglycidyl phenyl allyl ether oligomer	proprietary		0.031	mg	40052	425
Bonding wire	Precious metals	0.378	mg	supplier	wire	Gold (Au)	7440-57-5		0.378	mg	1000000	5178
Encapsulation	Other inorganic materials	32.32	mg	supplier	molding compound	Epoxy Resin	proprietary		3.173	mg	98175	43466
Encapsulation				supplier	molding compound	Silica fused (SiO2)	60676-86-0		26.678	mg	825433	365452
Encapsulation				supplier	molding compound	Phenol Resin	proprietary		2.292	mg	70916	31397
Encapsulation				supplier	molding compound	Carbon Black	1333-86-4		0.177	mg	5476	2425
connections coating	Solder	1.927	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.927	mg	1000000	26397