



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 *	2017-07-19
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Antonella Lanzafame	Representative Title	AMG MD CHAMPION
Representative Phone *	Refer to Supplier Comment section		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
ST3232BTR	EU6S*UW55AA6	A	Z8GA	2017-07-19
Amount	UoM	Unit type	ST ECOPACK Grade	
54.50	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		 life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	5.0X4.4X0.9	16	gull wing	
Comment	Package: 6S TSSOP 16 BODY 4.4 PITCH 0.65			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	true
2 - 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
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Exemption Id.	Description

Query : California Prop65 list, dated 14 August 2015			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			TRUE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			FALSE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.60	metallization	11064

QueryList : REACH-12th January 2017				
Query				Response
1 - Product(s) 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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	EU65*UW55AA6					
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	2.928	mg	supplier	die	Silicon (Si)	7440-21-3		2.826	mg	965164	51853
				supplier	metallization	Aluminium (Al)	7429-90-5		0.023	mg	7855	422
				supplier	Passivation	Silicon Nitride	12033-89-5		0.009	mg	3074	165
				supplier	Passivation	Silicon Oxide	7631-86-9		0.039	mg	13320	716
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.031	mg	10587	569
Leadframe	Copper & its alloys	19.135	mg	supplier	alloy	Copper (Cu)	7440-50-8		18.069	mg	944291	331541
				supplier	alloy	Nickel (Ni)	7440-02-0		0.603	mg	31513	11064
				supplier	alloy	Magnesium (Mg)	7439-95-4		0.031	mg	1620	569
				supplier	alloy	Silicon (Si)	7440-21-3		0.133	mg	6951	2440
				supplier	metallization	Silver (Ag)	7440-22-4		0.299	mg	15626	5486
Die attach	Other Organic Materials	0.499	mg	supplier	glue	Silver(Ag)	7440-22-4		0.389	mg	779559	7138
				supplier	glue	Acrylate resins	Proprietary		0.090	mg	180361	1651
				supplier	glue	Heterocyclic organic compound	Proprietary		0.010	mg	20040	183
				supplier	glue	Treated silica	Proprietary		0.010	mg	20040	183
Bonding wires	Precious metals	0.211	mg	supplier	wire	Gold (Au)	7440-57-5		0.211	mg	1000000	3872
Encapsulation	Other Organic Materials	29.678	mg	supplier	mold compound	Silica	60676-86-0		26.847	mg	904609	492606
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.940	mg	31673	17248
				supplier	mold compound	Epoxy resin	Proprietary		0.567	mg	19105	10404
				supplier	mold compound	Phenol Resin	Proprietary		1.261	mg	42489	23138
connections coating	Solder	2.049	mg	supplier	mold compound	Carbon Black	1333-86-4		0.063	mg	2123	1156
				supplier	solder alloy	Tin (Sn)	7440-31-5		2.049	mg	1000000	37596