



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 *	03/17/2015
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 *	Giuseppe Vitali Palma	Representative Title	AMS & IPD 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
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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
	MZC4*UA65AA5	A	SH1A	03/17/2015
Amount	UoM	Unit type	ST ECOPACK Grade	
320.00	mg	Each	ECOPACK® 2	

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	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SMC	6.4X6.0X2.2	5	S bend	
Comment	Package: PPACK 5 LEADS; MD valid for LDFMPT-TR			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
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)	true
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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : REACH-17th December 2014				
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	MZC4*UA65AA5					
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	0.752	mg	supplier	die	Silicon (Si)	7440-21-3		0.712	mg	946809	2225
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.007	mg	9309	22
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.006	mg	7979	19
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.002	mg	2660	6
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.013	mg	17287	41
die (s)				supplier	passivation	Gamma-butyrolactone	96-48-0		0.004	mg	5319	13
die (s)				supplier	passivation	Polyhydroxyamide	55295-98-2		0.002	mg	2660	6
die (s)				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	1330	3
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	1330	3
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.004	mg	5319	13
Leadframe	Copper & its alloys	159.372	mg	supplier	alloy	Copper (Cu)	7440-50-8		157.762	mg	989898	493006
Leadframe				supplier	alloy	CopperPhosphorous (CuP)	12517-41-8		0.317	mg	1989	991
Leadframe				supplier	alloy	Cobalt (Co)	7440-48-4		0.444	mg	2786	1388
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.571	mg	3583	1784
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		0.278	mg	1744	869
Soft solder	Other organic materials	0.367	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	0.351	mg	956403	1097
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.009	mg	24523	28
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.007	mg	19074	22
Bonding wire	Other inorganic materials	0.146	mg	supplier	wire	Gold (Au)	7440-57-5		0.146	mg	1000000	456
encapsulation	Other organic materials	158.781	mg	supplier	mold compound	Epoxy Resin	Proprietary		4.763	mg	29997	14884
encapsulation				supplier	mold compound	2,2'-((3,3',5,5'-tetramethyl-1,1'-biphenyl)-4,4'	EC 413-900-7		6.351	mg	39998	19847
encapsulation				supplier	mold compound	phenol resin	Proprietary		7.939	mg	50000	24809
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		138.934	mg	875004	434169
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.794	mg	5001	2481
connections coating	Solder	0.582	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.582	mg	1000000	1819