



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 *	2017-03-17
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Giovanni Giacobello	Representative Title	ADG MD 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
STA8090FGBD	A0W5*V839BDD	A	ZR1A	2017-03-17
Amount	UoM	Unit type	ST ECOPACK Grade	
65.80	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Tin/Silver/Copper (SAC125)	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
BGA	5x6x1.2	99	flat	

Comment	Package: TFBGA 5X6X1.2 99 F9X11 P0.5 B0.3			
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QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	false
Exemption Id.	Description

Query : California Prop65 list, dated 27th January 2017			
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

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						Mfr Item Name	ADWS*V839BDD									
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Dies	Other inorganic materials	5.905	mg	supplier	die	Silicon (Si)	7440-21-3		4.504	mg	762743	68450				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.031	mg	5250	471				
				supplier	metallization	Copper (Cu)	7440-50-8		0.282	mg	47756	4286				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.466	mg	78916	7082				
				supplier	metallization	Cobalt (Co)	7440-48-4		0.003	mg	508	46				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.022	mg	3726	334				
				supplier	metallization	Tungsten (W)	7440-33-7		0.228	mg	38611	3465				
				supplier	metallization	Nickel (Ni)	7440-02-0		0.001	mg	169	15				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.058	mg	9822	881				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.268	mg	45385	4073				
				supplier	polymer die coating	Polyimide AH 1200	Proprietary		0.042	mg	7113	638				
				Substrate	Other organic materials	22.493	mg	supplier	Substrate	Continuous filament fiber glass	65997-17-3		2.689	mg	119548	40866
								supplier	Substrate	Epoxy	7328-97-4		2.242	mg	99675	34073
								supplier	Substrate	Calcium carbonate	471-34-1		1.569	mg	69755	23845
supplier	Substrate	Calcium oxide	1305-78-8						2.017	mg	89672	30653				
supplier	Substrate	Inorganic Filler	21645-51-2						5.603	mg	249100	85152				
supplier	Substrate	Copper (Cu)	7440-50-8						7.844	mg	348731	119210				
supplier	Substrate	Nickel (Ni)	7440-02-0						0.269	mg	11959	4088				
supplier	Substrate	Gold(Au)	7440-57-5						0.179	mg	7958	2720				
supplier	Substrate	Talc containing no asbestiform fiber	14807-96-6						0.008	mg	356	122				
supplier	Substrate	Morpholine derivative	Trade Secret						0.011	mg	489	167				
supplier	Substrate	Barium Sulfate	7727-43-7						0.036	mg	1600	547				
supplier	Substrate	Silica, amorphous	7631-86-9						0.004	mg	178	61				
supplier	Substrate	Dipropylene glycol monomethyl ether	34590-94-8						0.022	mg	978	334				
Die Attach	Other organic materials	0.406	mg					supplier	Die attach Film	amorphous silica	7631-86-9		0.142	mg	349754	2158
				supplier	Die attach Film	epoxy resin	68610-41-3		0.101	mg	248768	1535				
				supplier	Die attach Film	Cycloaliphatic Epoxy Resin	244772-00-7		0.041	mg	100985	623				
				supplier	Die attach Film	Phenol resin	9003-35-4		0.041	mg	100985	623				
				supplier	Die attach Film	Epoxyde Bisphenol A Resin	25068-38-6		0.016	mg	39409	243				
				supplier	Die attach Film	other	Proprietary		0.065	mg	160099	988				
Bonding wire	Other inorganic materials	0.963	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.953	mg	989616	14483				
				supplier	Bonding wire	Palladium(Pd)	7440-05-3		0.010	mg	10384	152				
Encapsulation	Other organic materials	27.838	mg	supplier	Molding Compound	Silica(fused)	60676-86-0		23.942	mg	860047	363860				
				supplier	Molding Compound	Epoxy resin	25068-38-6		2.672	mg	95984	40608				
				supplier	Molding Compound	Phenol resin	29690-82-2		1.113	mg	39981	16915				
Solder balls	Solder	8.195	mg	supplier	Molding Compound	Carbon black	1333-86-4		0.111	mg	3987	1687				
				supplier	Solder ball	Tin (Sn)	7440-31-5		8.048	mg	982062	122310				
				supplier	Solder ball	Silver (Ag)	7440-22-4		0.099	mg	12081	1505				
				supplier	Solder ball	Copper (Cu)	7440-50-8		0.041	mg	5003	623				
				supplier	Solder ball	Nickel(Ni)	7440-02-0		0.004	mg	488	61				
				supplier	Solder ball	Lead(Pb)	7439-92-1		0.003	mg	366	46				