



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 *	2017-05-11
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Floriana San Biagio	Representative Title	AMG 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
	18X2*MV3SAAA	A	SA1A	2017-05-11
Amount	UoM	Unit type	ST ECOPACK Grade	
421.00	mg	Each	ECOPACK® 2	

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	
ating is used or other bulk terminati	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
QFN	11X14X1.0	97	No lead	
Comment	Package: AOX2 VFQFPN 11X14X1.0 97L 9 DIE PADS; MDF valid for POWERSTEP01TR			

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
Exemption Id.	Description

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	18X2*MV3SAAA					
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	7.891	mg	supplier	die	Silicon (Si)	7440-21-3		7.474	mg	947155	17753
				supplier	metallization	Aluminium (Al)	7429-90-5		0.112	mg	14193	266
				supplier	metallization	Tungsten (W)	7440-33-7		0.044	mg	5576	105
				supplier	Passivation	Silicon Nitride	12033-89-5		0.026	mg	3295	62
				supplier	Passivation	Silicon Oxide	7631-86-9		0.114	mg	14447	271
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	127	2
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.004	mg	507	10
				supplier	back side metallization	Gold (Au)	7440-57-5		0.011	mg	1394	26
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.038	mg	4816	90
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.002	mg	253	5
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.007	mg	887	17
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.058	mg	7350	138
				Leadframe	Copper & its alloys	173.309	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						3.909	mg	22555	9285
supplier	alloy	Lead (Pb)	7439-92-1						0.005	mg	29	12
supplier	alloy	Phosphorus (P)	12185-10-3						0.042	mg	242	100
supplier	alloy	Zinc (Zn)	7440-66-6						0.220	mg	1269	523
supplier	metallization	Silver (Ag)	7440-22-4						1.733	mg	9999	4116
Die attach 1	Other Organic Materials	3.472	mg	supplier	glue	Silver (Ag)	7440-22-4		3.212	mg	925115	7629
				supplier	glue	exo-1,7,7-trimethylbicyclo [2.2.2]hept-2-ylmet	7534-94-3		0.260	mg	74885	618
Die attach 2	Other Organic Materials	0.800	mg	supplier	glue	Silver (Ag)	7440-22-4		0.644	mg	805000	1530
				supplier	glue	Carbocyclic Acrylates	proprietary		0.080	mg	100000	190
				supplier	glue	Bismaleimide resin	35325-39-4		0.024	mg	30000	57
				supplier	glue	2-preponoic acid, 2-methyl	68586-19-6		0.024	mg	30000	57
				supplier	glue	Additive	proprietary		0.024	mg	30000	57
				supplier	glue	Dicumyl peroxide	80-43-3		0.004	mg	5000	10
Bonding wires 1	Other inorganic materials	3.392	mg	supplier	wire	Copper (Cu)	7440-50-8		3.392	mg	1000000	8057
Bonding wires 2	Other inorganic materials	3.712	mg	supplier	wire	Copper (Cu)	7440-50-8		3.675	mg	990032	8729
				supplier	wire	Palladium (Pd)	7440-05-3		0.037	mg	9968	88
Encapsulation	Other Organic Materials	218.625	mg	supplier	mold compound	Silica Fused	60676-86-0		204.852	mg	937002	486584
				supplier	mold compound	Epoxy resin	25068-38-6		6.559	mg	30001	15580
				supplier	mold compound	Phenol resin	29690-82-2		6.559	mg	30001	15580
				supplier	mold compound	Carbon Black	1333-86-4		0.655	mg	2996	1556
Finishing	Other inorganic materials	9.799	mg	supplier	Connection coating	Tin (Sn)	7440-31-5		9.799	mg	1000000	23276