



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 *	2016-04-01
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	Representative Title	IPD 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	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
AST1S31PUR	AY59*UA17AAA	A	SA1A	2016-04-01
Amount		UoM	Unit type	ST ECOPACK Grade
28.00		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	
NAC	Nicke/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	3X3X1.0	12	No lead	
Comment	Package: VFDFPN 8 3x3x1.0 PITCH 0.65 SAWN			

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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-17th December 2015				
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	AY59*UA17AAA					
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	2.473	mg	supplier	die	Silicon (Si)	7440-21-3		2.370	mg	958350	84643
				supplier	metallization	Aluminium (Al)	7429-90-5		0.019	mg	7683	679
				supplier	metallization	Tungsten (W)	7440-33-7		0.015	mg	8066	536
				supplier	Passivation	Silicon Nitride	12033-89-5		0.004	mg	1617	143
				supplier	Passivation	Silicon Oxide	7631-86-9		0.033	mg	13344	1179
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	405	36
				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	1617	143
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.007	mg	2831	250
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.020	mg	8087	714
				Leadframe	Copper and its alloy	8.602	mg	Supplier	Alloy	Copper (Cu)	7440-50-8	
Supplier	Alloy	Iron (Fe)	7439-89-6						0.194	mg	22553	6929
Supplier	Alloy	Phosphorus (P)	12185-10-3						0.002	mg	232	71
Supplier	Alloy	Zinc (Zn)	7440-66-6						0.010	mg	1163	357
Supplier	Alloy	Nickel (Ni)	7440-02-0						0.099	mg	11509	3536
Supplier	Alloy	Palladium (Pd)	7440-05-3						0.009	mg	1046	321
Supplier	Alloy	Gold (Au)	7440-57-5						0.001	mg	116	36
Die Attach	Other Organic Material	0.134	mg	Supplier	Glue	Silver (Ag)	7440-22-4		0.108	mg	805970	3857
				Supplier	Glue	Carbocyclic Acrylates	proprietary		0.013	mg	97015	464
				Supplier	Glue	Bismaleimide resin	35325-39-4		0.004	mg	29851	143
				Supplier	Glue	2-preponoic acid, 2-methyl	68586-19-6		0.004	mg	29851	143
				Supplier	Glue	Additive	proprietary		0.004	mg	29851	143
				Supplier	Glue	Dicumyl peroxide	80-43-3		0.001	mg	7462	36
Bonding Wire	Other Inorganic Material	0.181	mg	Supplier	Bonding Wire	Gold (Au)	7440-57-5		0.181	mg	1000000	6464
Encapsulation	Other Organic Material	16.610	mg	Supplier	Molding Compound	Silica Fused	60676-86-0		15.564	mg	937026	555857
				Supplier	Molding Compound	Epoxy Resin	25068-38-6		0.498	mg	29982	17786
				Supplier	Molding Compound	Phenol Resin	29690-82-2		0.498	mg	29982	17786
				Supplier	Molding Compound	Carbon Black	1333-86-4		0.050	mg	3010	1786