



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 *	2018-05-22
Company Unique ID	NL 008751171801		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	Floriana SAN BIAGIO	Representative Title	AMS 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
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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
	A2DD*MV7YACA	A	ZW1A	2018-05-22
Amount	UoM	Unit type	ST ECOPACK Grade	
23.8	mg	Each	ECOPACK® 2	
	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)		

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 (SAC305)	Not Applicable	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
LGA	4x3x1	5	flat	
Comment	A089 HCLGA 4MM X 3 MM X 1.00 MM MICRO; MDF valid for MP34DT06JTR			

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-15th January 2018				
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	A2DD*MV7YACA				7999998.0	899788.0				
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Dies	M-011 Other inorganic materials	2.021	mg	supplier	die	Silicon (Si)	7440-21-3		1.962	mg	970807	82437				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	990	84				
				supplier	metallization	Copper (Cu)	7440-50-8		0.009	mg	4453	378				
				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	495	42				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.002	mg	990	84				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	495	42				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.014	mg	6927	588				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.030	mg	14844	1261				
				Substrate 1	Other organic materials	4.172	mg	supplier	core	Glass Cloth	65997-17-3		0.165	mg	39549	6933
								supplier	core	Silica vitreous	60676-86-0		0.018	mg	4314	756
supplier	core	Thermosetting resin and other filler	Proprietary						0.045	mg	10786	1891				
supplier	core	Copper foil (Cu)	7440-50-8						2.719	mg	651726	114244				
supplier	solder mask	Solvent naphtha(petroleum),heavy aromatic	64742-94-5						0.003	mg	719	126				
supplier	solder mask	Napthalene	91-20-3						0.001	mg	240	42				
supplier	solder mask	Phosphin oxide derivative	Proprietary						0.004	mg	959	168				
supplier	solder mask	Talc containing no asbestiform fibers	14807-96-6						0.018	mg	4314	756				
supplier	solder mask	Barium sulfate	7727-43-7						0.053	mg	12704	2227				
supplier	solder mask	Dipropylene glycol monomethyl ether	34590-94-8						0.025	mg	5992	1050				
supplier	plating	Copper (Cu)	7440-50-8						0.927	mg	222196	38950				
supplier	plating	Nickel (Ni)	7440-02-0						0.176	mg	42186	7395				
supplier	plating	Palladium (Pd)	7440-05-3						0.009	mg	2157	378				
supplier	plating	Gold (Au)	7440-57-5						0.009	mg	2157	378				
Substrate 2	Other organic materials	12.308	mg	supplier	core	Glass Cloth	65997-17-3		0.486	mg	39487	20420				
				supplier	core	Silica vitreous	60676-86-0		0.054	mg	4387	2269				
				supplier	core	Thermosetting resin and other filler	Proprietary		0.134	mg	10887	5630				
				supplier	core	Copper foil (Cu)	7440-50-8		8.025	mg	652015	337185				
				supplier	solder mask	Solvent naphtha(petroleum),heavy aromatic	64742-94-5		0.009	mg	731	378				
				supplier	solder mask	Napthalene	91-20-3		0.004	mg	325	168				
				supplier	solder mask	Phosphin oxide derivative	Proprietary		0.011	mg	894	462				
				supplier	solder mask	Talc containing no asbestiform fibers	14807-96-6		0.054	mg	4314	756				
				supplier	solder mask	Barium sulfate	7727-43-7		0.155	mg	12593	6513				
				supplier	solder mask	Dipropylene glycol monomethyl ether	34590-94-8		0.074	mg	6012	3109				
				supplier	plating	Copper (Cu)	7440-50-8		2.735	mg	222213	114916				
				supplier	plating	Nickel (Ni)	7440-02-0		0.517	mg	42005	21723				
				supplier	plating	Palladium (Pd)	7440-05-3		0.025	mg	2031	1050				
				supplier	plating	Gold (Au)	7440-57-5		0.025	mg	2031	1050				
Substrate 3	Other organic materials	4.172	mg	supplier	core	Glass Cloth	65997-17-3		0.165	mg	39549	6933				
				supplier	core	Silica vitreous	60676-86-0		0.018	mg	4314	756				
				supplier	core	Thermosetting resin and other filler	Proprietary		0.045	mg	10786	1891				
				supplier	core	Copper foil (Cu)	7440-50-8		2.719	mg	651726	114244				
				supplier	solder mask	Solvent naphtha(petroleum),heavy aromatic	64742-94-5		0.003	mg	719	126				
				supplier	solder mask	Napthalene	91-20-3		0.001	mg	240	42				
				supplier	solder mask	Phosphin oxide derivative	Proprietary		0.004	mg	959	168				
				supplier	solder mask	Talc containing no asbestiform fibers	14807-96-6		0.018	mg	4314	756				
				supplier	solder mask	Barium sulfate	7727-43-7		0.053	mg	12704	2227				
				supplier	solder mask	Dipropylene glycol monomethyl ether	34590-94-8		0.025	mg	5992	1050				
				supplier	plating	Copper (Cu)	7440-50-8		0.927	mg	222196	38950				
				supplier	plating	Nickel (Ni)	7440-02-0		0.176	mg	42186	7395				
				supplier	plating	Palladium (Pd)	7440-05-3		0.009	mg	2157	378				
				supplier	plating	Gold (Au)	7440-57-5		0.009	mg	2157	378				
Die attach 1	Other organic materials	0.127	mg	supplier	glue	Treated silica	Proprietary		0.013	mg	102362	546				
				supplier	glue	Silica vitreous	60676-86-0		0.096	mg	755906	4034				
Die attach 2	Other organic materials	0.069	mg	supplier	glue	Dimethyl siloxane reaction with silica	67762-90-7		0.018	mg	141732	756				
				supplier	glue	Silica, amorphous, treated	6809-20-6		0.042	mg	608696	1765				
				supplier	glue	Bismaleimide monomer	35325-39-4		0.003	mg	43478	126				
				supplier	glue	Silicon dioxide	7631-86-9		0.021	mg	304348	882				
				supplier	glue	Acrylate monomer	Proprietary		0.001	mg	14493	42				
				supplier	glue	Epoxy resin	29690-82-2		0.001	mg	14493	42				
				supplier	glue	Additive	Proprietary		0.001	mg	14493	42				

Bonding wires	Other inorganic materials	0.017	mg	supplier	wire	Gold (Au)	7440-57-5		0.017	mg	1000000	714
solder paste	Other inorganic materials	0.909	mg	supplier	solder	Tin (Sn)	7440-31-5		0.877	mg	964796	36849
				supplier	solder	Silver (Ag)	7440-22-4		0.027	mg	29703	1134
				supplier	solder	Copper (Cu)	7440-50-8		0.005	mg	5501	210