



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 *	2017-07-27
Company Unique ID	NL 008751171B01		
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	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
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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
	MV59*UAY7AB5	A	CA2A	2017-07-27
Amount	UoM	Unit type	ST ECOPACK Grade	
28.00	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
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	3x3x1	8	flat	
Comment	Package: 59 VDFPN 8 3x3x1.0 PITCH 0.65 SAWN; MDF valid for LD59100PUR			

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-7th July 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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	MV59*UA7A85				5000000.0	1000036.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	0.557	mg	supplier	die	Silicon (Si)	7440-21-3		0.536	mg	962298	19143
				supplier	metallization	Aluminium (Al)	7429-90-5		0.006	mg	10772	214
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1795	36
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	1795	36
				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	3591	71
				supplier	Passivation	Silicon Oxide	7631-86-9		0.011	mg	19749	393
Leadframe	M-004 Copper and its alloys	14.162	mg	supplier	alloy	Copper (Cu)	7440-50-8		13.790	mg	973733	492500
				supplier	alloy	Iron (Fe)	7439-89-6		0.324	mg	22878	11571
				supplier	alloy	Zinc (Zn)	7440-66-6		0.017	mg	1200	607
				supplier	metallization	Nickel (Ni)	7440-02-0		0.028	mg	1977	1000
M-008 Precious metals	supplier	metallization	Palladium (Pd)	7440-05-3		0.002	mg	141	71			
	supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	71	36			
	supplier	glue	Silver (Ag)	7440-22-4		0.192	mg	803347	6857			
Die attach	M-015 Other organic materials	0.239	mg	supplier	glue	methylene diacrylate	42594-17-2		0.032	mg	133891	1143
				supplier	glue	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.006	mg	25105	214
				supplier	glue	Polybutadiene Anhydride	Proprietary		0.007	mg	29289	250
				supplier	glue	Epoxy cyclohexylethyltrimethoxysilane	3388-04-3		0.001	mg	4184	36
				supplier	glue	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.001	mg	4184	36
				supplier	wire	Gold (Au)	7440-57-5		0.076	mg	987013	2714
Bonding wires	M-008 Precious metals	0.077	mg	supplier	wire	Palladium (Pd)	7440-05-3		0.001	mg	12987	36
				supplier	mold compound	silica vitreous	60676-86-0		11.059	mg	852923	394964
				supplier	mold compound	epoxy resin	29690-82-2		0.519	mg	40028	18536
				supplier	mold compound	Phenol resin	25068-38-6		0.454	mg	35015	16214
				supplier	mold compound	Magnesium hydroxide	1309-42-8		0.519	mg	40028	18536
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.259	mg	19975	9250
				supplier	mold compound	Zinc hydroxide	20427-58-1		0.130	mg	10026	4643
				supplier	mold compound	carbon black	1333-86-4		0.026	mg	2005	929
Encapsulation	M-015 Other organic materials	12.966	mg	supplier	mold compound	silica vitreous	60676-86-0		11.059	mg	852923	394964
				supplier	mold compound	epoxy resin	29690-82-2		0.519	mg	40028	18536
				supplier	mold compound	Phenol resin	25068-38-6		0.454	mg	35015	16214
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