



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 *	2017-04-19
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
	HVVV*UI46BA5	A	ZS1A	2017-04-19
Amount	UoM	Unit type	ST ECOPACK Grade	
16.00	mg	Each	ECOPACK® 2	

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	
ating is used or other bulk terminati	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	2.8x1.5x0.9	5	gull wing	
Comment	Package: WV SOT 23 5L; MDF valid for STLQ015M18R			

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	HVWV*UI46BA5					
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	0.339	mg	supplier	die	Silicon (Si)	7440-21-3		0.320	mg	943953	20000
				supplier	metallization	Aluminium (Al)	7429-90-5		0.004	mg	11799	250
				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	8850	188
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	2950	63
				supplier	Passivation	Silicon Oxide	7631-86-9		0.007	mg	20649	438
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.004	mg	11799	250
Leadframe	Copper & its alloys	7.063	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.831	mg	967153	426938
				supplier	alloy	Phosphorus (P)	12185-10-3		0.001	mg	142	63
				supplier	alloy	Zinc (Zn)	7440-66-6		0.004	mg	566	250
				supplier	alloy	Iron (Fe)	7439-89-6		0.148	mg	20954	9250
				supplier	metallization	Nickel (Ni)	7440-02-0		0.071	mg	10052	4438
				supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	991	438
				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	142	63
				supplier	metallization	Silver (Ag)	7440-22-4		0.029	mg	852941	1813
Die attach	Other Organic Materials	0.034	mg	supplier	glue	Carbocyclic acrylate	Proprietary		0.003	mg	88235	188
				supplier	glue	2-Propenoic acid, 2-methyl-, 2-[[2,3,3a,4,7,7a]]	68586-19-6		0.002	mg	58824	125
				supplier	wire	Gold (Au)	7440-57-5		0.158	mg	1000000	9875
Bonding wires	Precious metals	0.158	mg	supplier	wire	Gold (Au)	7440-57-5		0.158	mg	1000000	9875
				supplier	mold compound	Epoxy Resin-1	Proprietary		0.168	mg	19988	10500
				supplier	mold compound	Epoxy Resin-2	25068-38-6		0.168	mg	19988	10500
				supplier	mold compound	Phenol resin	29690-82-2		0.336	mg	39976	21000
				supplier	mold compound	Amorphous Silica	60676-86-0		7.481	mg	890065	467563
Encapsulation	Other Organic Materials	8.405	mg	supplier	mold compound	Carbon Black	1333-86-4		0.042	mg	4997	2625
				supplier	mold compound	Crystalline silica	14808-60-7		0.210	mg	24985	13125