



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 *	2018-02-06
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
	HFVV*UAZ5AA5	A	Z8GA	2018-02-06
Amount	UoM	Unit type	ST ECOPACK Grade	
16	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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	2.90x1.60x1.10	5	gull wing	
Comment	Package: WV SOT 23 5L; MDF valid for LD39020ADM30R			

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	HFWV*UAZSAAS				6000000.0	1000068.0	
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	0.164	mg	supplier	die	Silicon (Si)	7440-21-3		0.158	mg	963415	9875	
				supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	12195	125	
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	6098	63	
				supplier	Passivation	Silicon Oxide	7631-86-9		0.003	mg	18293	188	
				supplier	alloy	Copper (Cu)	7440-50-8		6.333	mg	951901	395813	
Leadframe	M-004 Copper and its alloys	6.653	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.166	mg	24951	10375	
				supplier	alloy	Phosphorus(P)	7723-14-0		0.006	mg	902	375	
				supplier	alloy	Zinc(Zn)	7440-66-6		0.014	mg	2104	875	
					JIG - R	alloy	Lead (Pb)	7439-92-1		0.001	mg	150	63
				supplier	alloy	Silver(Ag)	7440-22-4		0.133	mg	19991	8313	
Die attach	M-015 Other organic materials	0.057	mg	supplier	glue	Silver(Ag)	7440-22-4		0.045	mg	789474	2813	
				supplier	glue	exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl met	7534-94-3		0.008	mg	140351	500	
				supplier	glue	1,1'-(1,3-phenylene)bis-1H-pyrrole-2,5-dione	3006-93-7		0.002	mg	35088	125	
				supplier	glue	A mixture of: 4-allyl-2,6-bis (2,3-epoxypropyl)pr	Proprietary		0.001	mg	17544	63	
				supplier	glue	2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane	3388-04-3'		0.001	mg	17544	63	
Bonding wires	M-008 Precious metals	0.066	mg	supplier	wire	Gold(Au)	7440-57-5		0.066	mg	1000000	4125	
Encapsulation	M-015 Other organic materials	8.589	mg	supplier	mold compound	Epoxy Resin1	29690-82-2		0.086	mg	10013	5375	
				supplier	mold compound	Epoxy Resin2	Proprietary		0.086	mg	10013	5375	
				supplier	mold compound	Phenol Resin	25068-38-6		0.258	mg	30038	16125	
				supplier	mold compound	Catalyst	Proprietary		0.043	mg	5006	2688	
				supplier	mold compound	Carbon black	1333-86-4		0.022	mg	2561	1375	
				supplier	mold compound	Amorphous silica	60676-86-0		7.751	mg	902433	484438	
				supplier	mold compound	Crystal silica	14808-60-7		0.343	mg	39935	21438	
Finishing	M-011 Other inorganic materials	0.472	mg	supplier	connection coating	Tin(Sn)	7440-31-5		0.472	mg	1000000	29500	