



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 *	2018-03-15
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	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

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
	HZGR*UT87AA6	A	SH1A	2018-03-15
Amount	UoM	Unit type	ST ECOPACK Grade	
331.3	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	
SIP	6.085x6.61x2.3	3	gull wing	
Comment	GR TO-252 DPAK Cu Wire; MDF valid for LD39150DT25-R			

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	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

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
-	-			0
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
-	-	0.00		
3 - Packing article and materials used for shipping the Product(s) does not contain REACH Substances Of Very High Concern				true
CategoryLevel_Name	CategoryLevel_Threshold	Amount in packing article (mg)	Application - Packing article description	ppm in packing article

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	HZGR*UT87AA6				5000001.0	995093.0
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	1.725	mg	supplier	die	Silicon (Si)	7440-21-3		1.618	mg	937971	4884
				supplier	metallization	Aluminium (Al)	7429-90-5		0.014	mg	8116	42
				supplier	metallization	Tungsten (W)	7440-33-7		0.023	mg	13333	69
				supplier	Passivation	Silicon Nitride	12033-89-5		0.004	mg	2319	12
				supplier	Passivation	Silicon Oxide	7631-86-9		0.033	mg	19130	100
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	580	3
				supplier	back side metallization	Gold (Au)	7440-57-5		0.003	mg	1739	9
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.011	mg	6377	33
				supplier	glass coating	Glass: Silicon Dioxide	7631-86-9		0.001	mg	580	3
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.017	mg	9855	51
Leadframe	M-004 Copper and its alloys	31.944	mg	supplier	alloy	Copper (Cu)	7440-50-8		31.902	mg	998685	96293
				supplier	alloy	Iron (Fe)	7439-89-6		0.015	mg	470	45
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.027	mg	845	81
Bonding wires	M-004 Copper and its alloys	0.103	mg	supplier	wire	Copper (Cu)	7440-50-8		0.103	mg	1000000	311
Encapsulation	M-015 Other organic materials	294.617	mg	supplier	mold compound	Silica, vitreous	60676-86-0		257.789	mg	874997	778113
				supplier	mold compound	Tetramethyl-biphenyl-diyl-bis oxymethylene-bi	85954-11-6		11.785	mg	40001	35572
				supplier	mold compound	Epoxy Resin	29690-82-2		8.839	mg	30002	26680
				supplier	mold compound	phenol resin	25068-38-6		14.731	mg	50001	44464
connections coating	Solder	1.286	mg	supplier	mold compound	Carbon black	1333-86-4		1.473	mg	5000	4446
				supplier	solder alloy	Tin (Sn)	7440-31-5		1.286	mg	1000000	3882