



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 *	2017-03-15
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Antonella Lanzafame	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
TSV851AICT	IYW8*V801AAL	A	ZS1A	2017-03-15
	Amount	UoM	Unit type	ST ECOPACK Grade
	6.00	mg	Each	ECOPACK® 3
	Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

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	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	2x1.26x0.93	5	gull wing	
Comment	Package: W8 SOT 323 5LDS			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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	IYW8*V801AAL					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or Dies (choose)	Other inorganic materials	0.349	mg	supplier	die	Silicon (Si)	7440-21-3		0.331	mg	948424	55167
				supplier	metallization	Aluminium (Al)	7429-90-5		0.003	mg	8596	500
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	2855	167
				supplier	Passivation	Silicon Oxide	7631-86-9		0.007	mg	20057	1167
				supplier	glass coating	Glass: Silicon Dioxide	7631-86-9		0.007	mg	20057	1167
Leadframe	Copper & its alloys	2.616	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.542	mg	971713	423667
				supplier	alloy	Iron (Fe)	7439-89-6		0.060	mg	22936	10000
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.004	mg	1529	667
				supplier	alloy	Zinc (Zn)	7440-66-6		0.003	mg	1147	500
				supplier	metallization	Nickel (Ni)	7440-02-0		0.005	mg	1911	833
Die attach	Other Organic Materials	0.058	mg	supplier	metallization	Palladium (Pd)	7440-05-3		0.001	mg	382	167
				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	382	167
				supplier	glue	Epoxyde Bisphenol A Resin	25068-38-6		0.005	mg	86207	833
				supplier	glue	Fused Silica	60676-86-0		0.018	mg	310345	3000
				supplier	glue	Ethylidiglycol acetate	112-15-2		0.013	mg	224138	2167
Bonding wires	Precious metals	0.058	mg	supplier	glue	Aluminium oxide	1344-28-1		0.012	mg	206897	2000
				supplier	glue	Bisphenol A diglycidyl ether polymer	25036-25-3		0.008	mg	137931	1333
				supplier	glue	Glycol ether ester	Proprietary		0.001	mg	17241	167
				supplier	glue	Diaminodiphenylsulfone	80-08-0		0.001	mg	17241	167
				supplier	wire	Gold (Au)	7440-57-5		0.058	mg	1000000	9667
Encapsulation	Other Organic Materials	2.919	mg	supplier	mold compound	Silica, vitreous	60676-86-0		2.509	mg	859541	418167
				supplier	mold compound	epoxy resin	25068-38-6		0.170	mg	58239	28333
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.146	mg	50017	24333
				supplier	mold compound	phenolic resin	Proprietary		0.088	mg	30147	14667
				supplier	mold compound	carbon black	1333-86-4		0.006	mg	2055	1000