



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 *	2019-10-31
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Antonella Lanzafame	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
TS432ILT	VRWX*S432AR6	A	ZS1A	2019-10-31
Amount	UoM	Unit type	ST ECOPACK Grade	
10.00	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		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
ing is used or other bulk terminat	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
DSO	2.8x1.5x0.9	3	gull wing	
Comment	Package: WX SOT 23 3 LDS			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 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-16th July 2019				
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	VRWX*S432AR6					
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	0.442	mg	supplier	die	Silicon (Si)	7440-21-3		0.437	mg	988688	43700
				supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	4525	200
				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	4525	200
				supplier	Passivation	Silicon Oxide	7631-86-9		0.001	mg	2262	100
Leadframe	Copper & its alloys	2.545	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.465	mg	968566	246500
				supplier	alloy	Iron (Fe)	7439-89-6		0.052	mg	20432	5200
				supplier	alloy	Iron Phosphide (Fe2P)	1310-43-6		0.001	mg	393	100
				supplier	alloy	Zinc (Zn)	7440-66-6		0.003	mg	1179	300
				supplier	metallization	Silver (Ag)	7440-22-4		0.024	mg	9430	2400
Die attach	Other Organic Materials	0.071	mg	supplier	glue	Epoxyde Bisphenol A Resin	25068-38-6		0.024	mg	338028	2400
				supplier	glue	Diaminodiphenylsulfone	80-08-0		0.007	mg	98592	700
				supplier	glue	Ethoxyethoxy-ethyl Acetate	112-15-2		0.003	mg	42254	300
				supplier	glue	Bisphenol A diglycidyl ether polymer	25036-25-3		0.003	mg	42254	300
				supplier	glue	Glycol ether ester	Proprietary		0.003	mg	42254	300
				supplier	glue	Silica, vitreous	60676-86-0		0.001	mg	14085	100
Bonding wires	Other inorganic materials	0.030	mg	supplier	wire	Copper (Cu)	7440-50-8		0.030	mg	1000000	3000
				supplier	Aluminium oxide	1344-28-1		0.030	mg	422535	3000	
Encapsulation	Other Organic Materials	6.715	mg	supplier	mold compound	Silica, vitreous	60676-86-0		5.775	mg	860015	577500
				supplier	mold compound	phenolic resin	29690-82-2		0.201	mg	29933	20100
				supplier	mold compound	epoxy resin	9003-35-4		0.390	mg	58079	39000
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.336	mg	50037	33600
Finishing	Other inorganic materials	0.197	mg	supplier	mold compound	carbon black	1333-86-4		0.013	mg	1936	1300
				supplier	Connection coating	Tin (Sn)	7440-31-5		0.197	mg	1000000	19700