



Materials Declaration Form


IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Sectionals *	A-D <i>* : Required Field</i>

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2017-04-06
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		

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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 omprehensive 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
TSV522AIST	HYE3*V522ABJ	A	ZS1A	2017-04-06
Amount	UoM	Unit type	ST ECOPACK Grade	
23.70	mg	Each	ECOPACK® 3	

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	
ting is used or other bulk terminat	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	3 x3x 0.85	8	gull wing	
Comment	Package: E3 MSOP/TSSOP 8 BODY3.00 PITCH0.65			

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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	false
Exemption Id.	Description

ELV exemption number	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	true
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	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	HVE3*V522ABJ					
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	0.449	mg	supplier	die	Silicon (Si)	7440-21-3		0.430	mg	957684	18143
				supplier	metallization	Aluminium (Al)	7429-90-5		0.004	mg	8909	169
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	2227	42
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	2227	42
				supplier	Passivation	Silicon Oxide	7631-86-9		0.007	mg	15590	295
				supplier	polymer die coating	PIXI Gamma-butyrolactone	96-48-0		0.006	mg	13363	253
Leadframe	Copper & its alloys	9.116	mg	supplier	Alloy	Copper (Cu)	7440-50-8		8.737	mg	958434	366793
				supplier	Alloy	Iron (Fe)	7439-89-6		0.251	mg	27563	10549
				supplier	Alloy	Phosphorus (P)	12185-10-3		0.002	mg	221	84
				supplier	Alloy	Zinc (Zn)	7440-66-6		0.014	mg	1544	591
				supplier	Alloy	Silver (Ag)	7440-22-4		0.112	mg	12238	4684
Die attach	Other Organic Materials	0.233	mg	supplier	Glue	Silver (Ag)	7440-22-4		0.161	mg	689655	6751
				supplier	Glue	methylene diacrylate	42594-17-2		0.058	mg	250000	2447
				supplier	Glue	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.007	mg	30172	295
				supplier	Glue	Polymer of Polybutadiene + Anhydride	Proprietary		0.007	mg	30172	295
Bonding wires	Precious metals	0.348	mg	supplier	wire	Gold(Au)	7440-50-8		0.348	mg	1000000	14599
Encapsulation	Other Organic Materials	12.784	mg	supplier	Molding compound	Silica, vitreous	60676-86-0		10.597	mg	828931	444895
				supplier	Molding compound	phenolic resin	29690-82-2		0.521	mg	40723	21857
				supplier	Molding compound	epoxy resin	25068-38-6		0.595	mg	46541	24979
				supplier	Molding compound	Biphenyl epoxy resin	85954-11-6		0.296	mg	23192	12447
				supplier	Molding compound	carbon black	1333-86-4		0.030	mg	2358	1266
				supplier	Molding compound	Zinc hydroxide	20427-58-1		0.150	mg	11714	6287
Finishing	Other inorganic materials	0.770	mg	supplier	Molding compound	Magnesium hydroxide	1309-42-8		0.595	mg	46541	24979
				supplier	Connection coating	Ti(Sn)	7440-31-3		0.770	mg	1000000	32321