



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 *	2015-07-14
Contact Name *	Refer to "Supplier Comment" section	Contact Title	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 Materials Declaration 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/online_tech_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
	HYWB*V620AAL	A	ZS1A	2015-07-14
Amount	UoM	Unit type	ST ECOPACK Grade	
16.80	mg	Each	ECOPACK® 2	

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 ; if coating is used o	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	2.9 - 1.625 - 1.175	6	gull wing	
Comment	Package: SOT 23 - 6L ; MDF vaild for TSV620ILT-TSV620AILT			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-15th June 2015				
Query				Response
The product 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	HYWB*V620AAL		16.80			
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Silicon Die	Other inorganic materials	0.311	mg	supplier	die	Silicon (Si)	7440-21-3		0.298	mg	958199	17738
Silicon Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.004	mg	12862	238
Silicon Die				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	3215	60
Silicon Die				supplier	Passivation	Silicon Oxide	7631-86-9		0.008	mg	25723	476
Lead-frame	Other inorganic materials	8.086	mg	supplier	alloy	Copper (Cu)	7440-50-8		7.827	mg	967969	465893
Lead-frame				supplier	alloy	Iron (Fe)	7439-89-6		0.16	mg	19787	9524
Lead-frame				supplier	alloy	Phosphorus (P)	12185-10-3		0.002	mg	247	119
Lead-frame				supplier	alloy	Zinc (Zn)	7440-66-6		0.008	mg	989	476
Lead-frame				supplier	metallization	Nickel (Ni)	7440-02-0		0.079	mg	9770	4702
Lead-frame				supplier	metallization	Palladium (Pd)	7440-05-3		0.005	mg	618	298
Lead-frame				supplier	metallization	Gold (Au)	7440-57-5		0.005	mg	618	298
Die Attach	Other inorganic materials	0.128	mg	supplier	glue	Silver (Ag)	7440-22-4		0.087	mg	679688	5179
Die Attach				supplier	glue	methylene diacrylate	42594-17-2		0.031	mg	242188	1845
Die Attach				supplier	glue	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.004	mg	31250	238
Die Attach				supplier	glue	Polymer of Polybutadiene + Anhydride	Proprietary		0.004	mg	31250	238
Die Attach				supplier	glue	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.001	mg	7813	60
Die Attach				supplier	glue	Palladium (Pd)	7440-05-3		0.001	mg	7813	60
Bonding wire	Precious metals	0.120	mg	supplier	wire	Gold (Au)	7440-57-5		0.120	mg	1000000	7143
encapsulation	Other inorganic materials	8.154	mg	supplier	mold compound	Silica, vitreous	60676-86-0		7.011	mg	859823	417321
encapsulation				supplier	mold compound	epoxy resin	Proprietary		0.473	mg	58008	28155
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.408	mg	50037	24286
encapsulation				supplier	mold compound	phenolic resin	Proprietary		0.245	mg	30047	14583
encapsulation				supplier	mold compound	carbon black	1333-86-4		0.017	mg	2085	1012