



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2016-07-13
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Rossana Bonaccorso	<b>Representative Title</b>	ADG MD CHAMPION
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty Statement**

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Legal Statement			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	Standard
<b>Legal Statement</b>	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
BAT20JFILM	HJW3*NHBAF20	A	Z55A	2016-07-13
Amount		UoM	Unit type	ST ECOPACK Grade
5.00		mg	Each	ECOPACK® 2

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	
NAC	Tin (Sn), matte	Alloy 42		



Package Designator	Size	Nbr of instances	Shape	
DSO	1.682 - 1.247 - 1.059	2	gull wing	
Comment	Package: SOD 323			

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

QueryList : REACH-20th June 2016				
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	HIW3*NHBAF20					
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	0.151	mg	supplier	die	Silicon (Si)	7440-21-3		0.138	mg	913907	27600
				supplier	metallization	Aluminium (Al)	7429-90-5		0.011	mg	72848	2200
				supplier	Passivation	Silicon Oxide	7631-86-9		0.002	mg	13245	400
Leadframe	Other Ferrous alloys, non-stainless ste	1.289	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.715	mg	554694	143000
				supplier	alloy	Nickel (Ni)	7440-02-0		0.509	mg	394880	101800
				supplier	alloy	Manganese (Mn)	7439-96-5		0.008	mg	6205	1600
				supplier	alloy	Cobalt (Co)	7440-48-4		0.006	mg	4655	1200
				supplier	alloy	Silicon (Si)	7440-21-3		0.002	mg	1552	400
				supplier	metallization	Silver (Ag)	7440-22-4		0.049	mg	38014	9800
Bonding wire	Precious metals	0.023	mg	supplier	wire	Gold (Au)	7440-57-5		0.023	mg	1000000	4600
Encapsulation	Other inorganic materials	3.388	mg	supplier	mold compound	silica vitreous	60676-86-0		2.890	mg	853011	578000
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		0.186	mg	54900	37200
				supplier	mold compound	Phenol Resin	26834-02-6		0.169	mg	49882	33800
				supplier	mold compound	Tetrakis(2,6-dimethylphenyl) 1,3-phenylene bi	139189-30-3		0.085	mg	25089	17000
				supplier	mold compound	Carbon black	1333-86-4		0.007	mg	2065	1400
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.051	mg	15053	10200
Connections coating	Solder	0.149	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.149	mg	1000000	29800