



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 *	20189-03-11
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	Giovanni Giacopello	Representative Title	ADG 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
BAT54FILMY	AJWR*AHBAT43	A	9955	20189-03-11
	Amount	UoM	Unit type	ST ECOPACK Grade
	8	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 (in each organic material)			

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	Tin (Sn), matte	Alloy 42		

Package Designator	Size	Nbr of instances	Shape	
DSO	2.75 - 1.2 - 0.9	3	gull wing	
Comment	Package: SOT 23 SIMPLE DIODE			

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 : ELV directive : 2000/53/EC amended 2017/2096 _November 2017			
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 : California Prop65 list, dated 26th October 2018			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.95	Die - Leadframe	118750

QueryList : REACH-15th January 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
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	AIWR*AHBAT43					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	0.093	mg	supplier	die	Silicon (Si)	7440-21-3		0.088	mg	946237	11000
				supplier	metallization	Aluminium (Al)	7429-90-5		0.001	mg	10753	125
				supplier	passivation	Nickel (Ni)	7440-02-0		0.001	mg	10753	125
				supplier	Passivation	Silicon Oxide	7631-86-9		0.001	mg	10753	125
				supplier	polymer die coating	Durimide	Proprietary		0.002	mg	21504	250
Leadframe	M-002 Other ferrous alloys, non-stain	2.397	mg	supplier	alloy	Iron (Fe)	7439-89-6		1.333	mg	556112	166625
				supplier	alloy	Nickel (Ni)	7440-02-0		0.949	mg	395912	118625
				supplier	alloy	Silicon (Si)	7440-21-3		0.004	mg	1669	500
				supplier	alloy	Cobalt (Co)	7440-48-4		0.011	mg	4589	1375
				supplier	alloy	Chromium (Cr)	7440-47-3		0.002	mg	834	250
Bonding wires	M-008 Precious metals	0.002	mg	supplier	metallization	Silver (Ag)	7440-22-4		0.098	mg	40884	12250
				supplier	wire	Gold (Au)	7440-57-5		0.002	mg	1000000	250
Encapsulation	M-011 Other inorganic materials	5.265	mg	supplier	mold compound	silica vitreous	60676-86-0		4.595	mg	872745	574375
				supplier	mold compound	Epoxy Resin	29690-82-2		0.264	mg	50142	33000
				supplier	mold compound	Phenol Resin	26834-02-6		0.264	mg	50142	33000
				supplier	mold compound	Aromatic poly-phosphate	Proprietary		0.132	mg	25071	16500
				supplier	mold compound	Carbon Black	1333-86-4		0.010	mg	1900	1250
connections coating	Solder	0.243	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.243	mg	1000000	30375