



## Material declaration form

General Information			
IPC	1752	Version	2
Form type*	Distribute		
Sectionals*	Material information	Subsectionals*	A-D
	Manufacturing information		

\*: Required Field

Supplier Information			
Company name*	STMicroelectronics	Response Date*	2023-02-01
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	ADGMaterial Declaration champion
Representative phone*	Refer to Supplier Comment section	Representative email*	Refer to Supplier Comment section
Supplier comment	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**

Supplier acceptance*	true	Legal declaration*	Standard
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	Manufacturing site	date
ACST1220H-8BTR	BTDP*UNN1220	A	998G	2023-02-01
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	320.00	mg	Each	ECOPACK® 2
<b>Identity</b>	<b>Authority</b>			
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 temperature	Number of reflow cycles		
1	260	3		
Bulk solder termination	Terminal plating	Terminal base alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00889806	
Package designator	Package size	Number of instances	Shape	
SIP	6.50x6.10x2.30	3	Gull wing	
Comment	TO 252 DPAK			



QueryList : RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 March 2015		Response
1 - Product(s) meets EU RoHS requirement without any exemptions		false
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)		true
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions		false
Exemption Id.	Description	
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)	

QueryList : ELV directive : 2000/53/EC amended 2020/363_March 2020		Response
1 - Product(s) meets EU ELV requirements without any exemptions		false
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)		true
Exemption Id.	Description	
8(e)	8(e) - Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	

QueryList : California Prop65 list, dated 25th Feb 2022			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	1.107	die	3459
Lead	3.781	soft solder	11816

QueryList : REACH-17 Jan 2023				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				false
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	3.78	Soft solder	11816
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				false
CategoryLevel_Name	CategoryLevel_Threshold	Amount in embedded article / Homogeneous material (mg)	Application - article / Homogeneous material	ppm in article /Homogeneous material
Lead	1000 ppm	3.78	Soft solder	955039

QueryList : Responsible metals sourcing	Response
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.	true
The following metals are present is the component :	Tin,

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update	Response
The Product does contain at least one of the substances listed in Chemical Control Act	false

QueryList : China GB 33372-2020 Limit standard for volatile organic compounds content in adhesives - 4 March 2020 application date 1st December 2020	Response
The product contains adhesives identified under GB 33372	false

Stockholm Convention Persistent Organic Pollutants	Response
Product is compliant with Stockholm Convention Persistent Organic Pollutants Annex I	true



Material Composition Declaration :						Mfr Item Name	BTDP*UNN1220		320.0000		7000000.0	1000003.0
note : Substance present with less 0.001mg will not be declared in this document												
Homogeneous material	Material group	Mass	Unit of measure	Level	Substance category	Substance	CAS	Exempt	Mass	Unit of measure	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	5.601	mg	supplier	die	Silicon(Si)	7440-21-3		5.324	mg	950545	16638
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.176	mg	31423	550
				supplier	passivation	Silicon oxide	7631-86-9		0.101	mg	18032	316
Leadframe	M-004 Copper and its alloys	174.034	mg	supplier	alloy	Copper(Cu)	7440-50-8		172.702	mg	992346	539694
				supplier	alloy	Iron(Fe)	7439-89-6		0.173	mg	994	541
				supplier	alloy	Iron phosphide	26508-33-8		0.052	mg	299	163
				supplier	metallization	Nickel (Ni)	7440-02-0		1.107	mg	6361	3459
Soft solder	Solder	3.959	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	3.781	mg	955039	11816
				supplier	solder	Tin(Sn)	7440-31-5		0.079	mg	19955	247
				supplier	solder	Silver(Ag)	7440-22-4		0.099	mg	25006	309
Bonding wires	M-003 Aluminum and its alloys	1.108	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.108	mg	1000000	3463
Bonding wires 2	M-003 Aluminum and its alloys	0.267	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.267	mg	1000000	834
Encapsulation	M-011 Other inorganic materials	133.986	mg	supplier	mold compound	Silica vitreous	60676-86-0		120.252	mg	897497	375788
				supplier	mold compound	Epoxy type resin	proprietary		9.379	mg	70000	29309
				supplier	mold compound	Phenol type resin	proprietary		4.020	mg	30003	12563
				supplier	mold compound	Carbon black	1333-86-4		0.335	mg	2500	1047
Connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3266