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*	2025-02-10
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*	Antonella Lanzafame	Representative title	APMSMaterial 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/support.html		

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.

Signature Not Verified

Digitally signed by
Antonella Lanzafame
Date: 2025.02.10
11:56:58 CET

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Product

Mfr item number	Mfr item name	Version	Manufacturing site	date
TSC1801BIYLT	AYWB*VB4LABY	A	ZS1A	2025-02-10
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	16.78	mg	Each	ECOPACK® 3
Identity	**Authority**			
Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony			

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	0

Package designator	Package size	Number of instances	Shape	
DSO	2.9x1.63	6	gull wing	
Comment				
Comment	WB SOT 23			

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	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 2020/363_March 2020	**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 3rd January 2025	**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	0.086	alloy	5125

QueryList :Customer	**Response**
QUERY	**Response**

QueryList : Chinese RoHS , references : SJT 11364 – 2014 and GBT 26572 – 2014	**Response**
QUERY	**Response**
1 - Product(s) requires marking for the presence of restricted substances and must be marked with an Environmental Protection Use Period under China's Measures for Administration of the control of pollution by Electronic Information Products	false
2 - Product(s) is eligible for marking with the e code under China's Measures for Administration of the control of pollution by Electronic Information Products	false

Hazardous substance				
Lead (Pb)	**Cadmium (Cd)**	**Mercury (Hg)**	**Hexavalent Chromium (Cr VI)**	**PBB & PBDE**
O	O	O	O	O

QueryList : REACH-21st January 2025				**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
,			,	

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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 :	**Gold, Tungsten,**

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

QueryList:Stockholm Convention Persistent Organic Pollutants (POP)	Response
Product is compliant with Annex A, B and C of Stockholm Convention Persistent Organic Pollutants	true

QueryList: EU Ship Recycling Regulation No. 1257/2013	Response
Product contains hazardous materials listed in Annex II of EU Ship Recycling Regulation No.1257/2013 and 2009/16/EC Directive	False

PFAS/PTFE Declaration	Response
The product is containing at least one of the following PFAS substance: Polytetrafluoroethylene,Thiophenium, Triphenylsulfonium nonaflate, Trifluoroacetic anhydride	False

BPA Declaration	Response
Product does not contain Bisphenol A (Isopropylidenediphenol)	True

Montreal Protocol	Response
Product does not contain Ozone Depleting Substances based on Annex I to Annex VII of EU REGULATION (EC) No 1005/2009	True

Environmental Protection Agency:Toxic Substances Control Act (TSCA). Section 6(h)	Response
Product does not contain Phenol, isopropylated, phosphate (3:1)	True

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Material declaration form

ACTIVE: 2/10/2025

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						**Mfr Item Name**	**AYWB*VB4LABY**		16.7800		4999999.0	999998.0
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 or Dies or Wafer (choose)	M-011 Other inorganic materials	0.547	mg	supplier	die	Silicon(Si)	7440-21-3		0.515	mg	941499	30691
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.006	mg	10969	358
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.001	mg	1828	60
				supplier	metallisation	Tungsten(W)	7440-33-7		0.001	mg	1828	60
				supplier	Passivation	Silicon nitride(S	12033-89-5		0.002	mg	3656	119
				supplier	passivation	Silicon oxide	7631-86-9		0.013	mg	23766	775
				supplier	polymer coating	polyimide	proprietary		0.009	mg	16453	536
Leadframe	M-004 Copper and its alloys	7.800	mg	supplier	alloy	Copper (Remai	7440-50-8		7.519	mg	963974	448093
				supplier	alloy	Iron (2.10 ~ 2.5	7439-89-6		0.183	mg	23462	10906
				supplier	alloy	Nickel (1.00 ~ 1	7440-02-0		0.086	mg	11026	5125
				supplier	alloy	Palladium (0.1	7440-05-3		0.010	mg	1282	596
				supplier	alloy	Gold (0.02 ~ 0.	7440-57-5		0.002	mg	256	119
Die attach	M-011 Other inorganic materials	0.075	mg	supplier	glue	Silver (50 - 100	7440-22-4		0.059	mg	780000	3486
				supplier	glue	Propionic acid,	Proprietary		0.011	mg	150000	670
				supplier	glue	Amines, C36-al	Proprietary		0.002	mg	32500	145
				supplier	glue	Dicyclopenteny	68586-19-6		0.002	mg	32500	145
				supplier	glue	Propenoic acid	Proprietary		0.0004	mg	5000	22
Bonding wires	M-008 Precious metals	0.170	mg	supplier	wire	Au	7440-57-5		0.170	mg	1000000	10131
Encapsulation	M-011 Other inorganic materials	8.188	mg	supplier	mold compound	Solid Epoxy Re	Proprietary		0.172	mg	20994	10244
				supplier	mold compound	Solid Epoxy Re	Proprietary		0.172	mg	20994	10244
				supplier	mold compound	Phenol resin (2	Proprietary		0.344	mg	41988	20489
				supplier	mold compound	Amorphous Sili	60676-86-0		7.243	mg	884532	431618
				supplier	mold compound	Carbon Black (	1333-86-4		0.043	mg	5249	2561
				supplier	mold compound	Crystalline silica	14808-60-7		0.215	mg	26243	12805

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