



## Material declaration form

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

Supplier Information			
Company name*	STMicroelectronics	Response Date*	2025-03-31
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 : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty statement**

While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

**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
TSL64011YLT	AYWY*VB3B1BY	A	ZS1A	2025-03-31
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	16	mg	Each	ECOPACK® 3
<b>Identity</b>	<b>Authority</b>			
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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		0

Package designator	Package size	Number of instances	Shape	
SOT	2.9x1.6	5	gull wing	
Comment				
Comment	WY SOT 23-5			

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
<b>Exemption Id.</b>	<b>Description</b>

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
<b>Exemption Id.</b>	<b>Description</b>

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		
<b>Substance</b>	<b>amount in product (mg)</b>	<b>Application</b>	<b>ppm in product</b>
Nickel	0.087	alloy	5311

QueryList :Customer	Response
<b>QUERY</b>	<b>Response</b>

QueryList : Chinese RoHS , references : SJT 11364 – 2014 and GBT 26572 – 2014	Response			
<b>QUERY</b>	<b>Response</b>			
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			
<b>Hazardous substance</b>				
<b>Lead (Pb)</b>	<b>Cadmium (Cd)</b>	<b>Mercury (Hg)</b>	<b>Hexavalent Chromium (Cr VI)</b>	<b>PBB &amp; PBDE</b>
0	0	0	0	0

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			
<b>CategoryLevel_Name</b>	<b>CategoryLevel_Threshold</b>	<b>amount in product (mg)</b>	<b>Application</b>	<b>ppm in product</b>
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			
<b>CategoryLevel_Name</b>	<b>CategoryLevel_Threshold</b>	<b>Amount in embedded article / Homogeneous material (mg)</b>	<b>Application - article / Homogeneous material</b>	<b>ppm in article /Homogeneous material</b>



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



Material Composition Declaration :						Mfr Item Name	AYWY*VB3B1BY			16.3805		5000000.0	1000026.0
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 or Dies or Wafer (choose)	M-011 Other inorganic materials	0.675	mg	supplier	die	Silicon(Si)	7440-21-3		0.646	mg	957037	39438	
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.006	mg	8889	366	
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.001	mg	1481	61	
				supplier	metallisation	Tungsten(W)	7440-33-7		0.001	mg	1481	61	
				supplier	Passivation	Silicon nitride(Si3N4)	12033-89-5		0.002	mg	2963	122	
				supplier	passivation	Silicon oxide	7631-86-9		0.011	mg	16296	672	
				supplier	polymer coating	polyimide	proprietary		0.008	mg	11852	488	
Leadframe	M-004 Copper and its alloys	7.272	mg	supplier	alloy	Copper (Cu)	7440-50-8		7.000	mg	962596	427350	
				supplier	alloy	Zinc (Zn)	7440-66-6		0.007	mg	963	427	
				supplier	alloy	Iron(Fe)	7439-89-6		0.167	mg	22965	10195	
				supplier	alloy	Phosphorus (P)	7723-14-0		0.005	mg	688	305	
				supplier	alloy	Nickel (Ni)	7440-02-0		0.087	mg	11964	5311	
				supplier	alloy	Palladium (Pd)	7440-05-3		0.004	mg	550	244	
				supplier	alloy	Gold (Au)	7440-57-5		0.002	mg	275	122	
Die attach	M-011 Other inorganic materials	0.105	mg	supplier	glue	Silver(Ag)	7440-22-4		0.083	mg	790476	5067	
				supplier	glue	Methylene diac	42594-17-2		0.017	mg	161905	1038	
				supplier	glue	Dicyclopenteny	68586-19-6		0.003	mg	28571	183	
				supplier	glue	Epoxycyclohex	3388-04-3		0.001	mg	9524	61	
				SVHC	glue	Bis(α,α-dimethy	80-43-3		0.001	mg	9524	61	
Bonding wires	M-008 Precious metals	0.083	mg	supplier	wire	Gold (Au)	7440-57-5		0.083	mg	1000000	5067	
Encapsulation	M-011 Other inorganic materials	8.245	mg	supplier	mold compound	Solid Epoxy Re	Proprietary		0.161	mg	19560	9846	
				supplier	mold compound	Solid Epoxy Re	Proprietary		0.161	mg	19560	9846	
				supplier	mold compound	Phenol resin	Proprietary		0.306	mg	37111	18681	
				supplier	mold compound	Amorphous Sili	60676-86-0		7.375	mg	894429	450244	
				supplier	mold compound	Carbon Black	1333-86-4		0.040	mg	4890	2462	
				supplier	mold compound	Crystalline silica	14808-60-7		0.202	mg	24450	12308	