



## 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*	2024-07-25
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	AMSMaterial 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
LDH40MR	MFVW*UBHBAA5	A	Z3UA	2024-07-25
	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	Tin (Sn), immersion	Copper Alloy		0

Package designator	Package size	Number of instances	Shape	
sot	2.8 x 1.5	5	0	
Comment				
Comment	WV SOT 23 5L			

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 29th December 2023				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	0.015	ALLOY	938

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>	
O	O	O	O	O	

QueryList : REACH-27th June 2024					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	
	0				
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	



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, Tin, 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

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

QueryList : EUSRR Directive	Response
Product contains hazardous materials listed in EUSRR Annex II	True
The material present in the product is:	Lead

PFAS/PTFE Declaration	Response
<b>QUERY</b>	<b>Response</b>
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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	MFVV*UBHBAAS		15.9989		5999851.0	999938.0
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	M-011 Other inorganic materials	0.575	mg	supplier	die	Silicon(Si)	7440-21-3		0.528	mg	918261	33000
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.007	mg	12174	438
				supplier	metallisation	Copper(Cu)	7440-50-8		0.001	mg	1739	63
				supplier	metallisation	Gold(Au)	7440-57-5		0.001	mg	1739	63
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.015	mg	26087	938
				supplier	metallisation	Palladium(Pd)	7440-05-3		0.002	mg	3478	125
				supplier	metallisation	Tungsten(W)	7440-33-7		0.001	mg	1739	63
				supplier	passivation	Silicon oxide	7631-86-9		0.020	mg	34783	1250
				supplier	alloy	Copper (Cu)	7440-50-8		6.503	mg	967852	406438
Leadframe	M-004 Copper and its alloys	6.719	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.158	mg	23515	9875
				supplier	alloy	Phosphorus (P)	7723-14-0		0.005	mg	744	313
				supplier	alloy	Zinc (Zn)	7440-66-6		0.008	mg	1191	500
				supplier	alloy	Silver (Ag)	7440-22-4		0.044	mg	6549	2750
				supplier	glue	Silver	7440-22-4		0.032	mg	770000	1973
Die attach	M-011 Other inorganic materials	0.041	mg	supplier	glue	High boiling methacrylate	Proprietary		0.006	mg	150000	384
				supplier	glue	5-Isocyanato-1-(isocyanatomethyl)-1	1189-71-5		0.002	mg	50000	128
				supplier	glue	Resin	Proprietary		0.001	mg	20000	51
				supplier	glue	A mixture of: 4-allyl-2,6-bis (2,3-epoxypropyl)pher	Proprietary		0.0003	mg	8000	21
				supplier	glue	Substituted silane	Proprietary		0.0001	mg	2000	5
Bonding wires	M-004 Copper and its alloys	0.025	mg	supplier	wire	Cu	7440-50-8		0.024	mg	965500	1509
				supplier	wire	Pd	7440-5-3		0.001	mg	31000	48
				supplier	wire	Au	7440-57-5		0.000	mg	3500	5
Encapsulation	M-011 Other inorganic materials	8.132	mg	supplier	mold compound	Epoxy Resin 1	Proprietary		0.362	mg	44574	22655
				supplier	mold compound	Epoxy Resin 2	Proprietary		0.201	mg	24763	12586
				supplier	mold compound	Phenolic Resin	9003-35-4		0.403	mg	49527	25172
				supplier	mold compound	Organic Phosphorus compound	Proprietary		0.024	mg	2972	1510
				supplier	mold compound	Carbon Black	1333-86-4		0.016	mg	1981	1007
				supplier	mold compound	Amorphous silica 1	60676-86-0		6.320	mg	777130	394977
				supplier	mold compound	Amorphous silica 2	7631-86-9		0.806	mg	99053	50344
Connections coating	Solder	0.508	mg	supplier	solder alloy	Tin(Sn)	7440-31-5		0.508	mg	1000000	31747