



## 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*	2024-11-14
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**

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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
STDRIVE102H	NC0T*UBGLACQ	A	CA2A	2024-11-14
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	150	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	
3	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
QFN	5x5	40	gull wing
Comment			
Comment	A0EH VFQFPN 40L 5X 5X1 0,4 PITCH		

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 17th Nov 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	0.706	alloy	4707

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-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
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 :	Cobalt, 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	true
All the adhesive impacted complies with GB 33372	true

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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	NC0T*UBGLACQ		149.5010		4000001.0	996677.0
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	6.678	mg	supplier	die	Silicon(Si)	7440-21-3		6.436	mg	963762	42907
				supplier	metallisation	Aluminium(AI)	7429-90-5		0.048	mg	7188	320
				supplier	metallisation	Chromium(Cr)	7440-47-3		0.004	mg	599	27
				supplier	metallisation	Copper(Cu)	7440-50-8		0.008	mg	1198	53
				supplier	metallisation	Cobalt(Co)	7440-48-4		0.001	mg	150	7
				supplier	metallisation	Gold(Au)	7440-57-5		0.010	mg	1497	67
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.018	mg	2695	120
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.003	mg	449	20
				supplier	metallisation	Tungsten(W)	7440-33-7		0.005	mg	749	33
				supplier	metallisation	Vanadium(V)	7440-62-2		0.001	mg	150	7
				supplier	passivation	Silicon oxide	7631-86-9		0.092	mg	13777	613
				Leadframe	M-004 Copper and its alloys	40.500	mg	supplier	polymer coating	polyimide	proprietary	
supplier	alloy	Copper(Cu)	7440-50-8						30.258	mg	747111	201720
supplier	alloy	Iron (Fe)	7439-89-6						0.532	mg	13136	3547
supplier	alloy	Iron phosphide	26508-33-8						0.124	mg	3062	827
supplier	alloy	Zinc(Zn)	7440-66-6						0.040	mg	988	267
supplier	metallization	Nickel(Ni)	7440-02-0						0.688	mg	16988	4587
supplier	metallization	Palladium(Pd)	7440-05-3						0.052	mg	1284	347
supplier	metallization	Gold(Au)	7440-57-5						8.806	mg	217432	58707
Die attach	M-011 Other inorganic materials	0.744	mg	supplier	glue	Silver(Ag)	7440-22-4		0.596	mg	801075	3973
				supplier	glue	Bisphenol F type epoxy resin	9003-36-5		0.060	mg	80645	400
				supplier	glue	Epoxy resin	68475-94-5		0.022	mg	29570	147
				supplier	glue	Diglycidyl phenyl allyl ether	EC417-470-1		0.022	mg	29570	147
				supplier	glue	Other	proprietary		0.022	mg	29570	147
				supplier	glue	Polyoxypropylenediamine	9046-10-0		0.022	mg	29570	147
Encapsulation	M-011 Other inorganic materials	101.579	mg	supplier	mold compound	Silica vitreous	60676-86-0		89.389	mg	879995	595927
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		5.079	mg	50000	33860
				supplier	mold compound	Phenolic resin	205830-20-2		3.962	mg	39004	26413
				supplier	mold compound	Epoxy type resin	proprietary		2.032	mg	20004	13547
				supplier	mold compound	Carbon black	1333-86-4		0.203	mg	1998	1353
supplier	mold compound	other	proprietary		0.914	mg	8998	6093				