



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*	2024-09-25
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 : 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.			



Product				
Mfr item number	Mfr item name	Version	Manufacturing site	date
STDRIIVE102BH	NC0V*UBGLACQ	A	CA2A	2024-09-25
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	150	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		
3	260	3		
Bulk solder termination	Terminal plating	Terminal base alloy		Comment
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	0		0

Package designator	Package size	Number of instances	Shape	
QFN	6 x 6	48	Flat	
Comment				
Comment	A0BE VFQFPN 6x6x0.9 48L PITCH 0.4			

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 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
Substance	amount in product (mg)	Application	ppm in product
Nickel	1.010	alloy	6733

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	
0	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 :	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	NC0V*UBGLACQ		150.0010		5006993.0	1000009.0
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	0.143	mg	supplier	die	Silicon(Si)	7440-21-3		0.117	mg	818182	780
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.001	mg	6993	7
				supplier	metallisation	Copper(Cu)	7440-50-8		0.014	mg	97902	93
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.003	mg	20979	20
				supplier	metallisation	Palladium(Pd)	7440-05-3		0.001	mg	6993	7
				supplier	metallisation	Tungsten(W)	7440-33-7		0.001	mg	6993	7
				supplier	passivation	Silicon oxide	7631-86-9		0.003	mg	20979	20
				supplier	polymer coating	polyimide	proprietary		0.003	mg	20979	20
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.001	mg	6993	7
				Leadframe	M-004 Copper and its alloys	56.848	mg	supplier	alloy	Copper(Cu)	7440-50-8	
supplier	alloy	Iron(Fe)	7439-89-6						0.984	mg	17309	6560
supplier	alloy	Iron phosphide	1310-43-6						0.059	mg	1038	393
supplier	alloy	Zinc(Zn)	7440-66-6						0.052	mg	915	347
supplier	metallization	Nickel (Ni)	7440-02-0						1.007	mg	17714	6713
supplier	metallization	Palladium (Pd)	7440-05-3						0.035	mg	616	233
supplier	metallization	Gold (Au)	7440-57-5						12.889	mg	226727	85927
Die attach	M-011 Other inorganic materials	0.033	mg	supplier	glue	Silver(Ag)	7440-22-4	0	0.026	mg	787879	173
				supplier	glue	Bisphenol F type epoxy resin	9003-36-5		0.003	mg	90909	20
				supplier	glue	Epoxy resin	68475-94-5		0.001	mg	30303	7
				supplier	glue	Diglycidyl phenyl allyl ether	EC417-470-1		0.001	mg	30303	7
				supplier	glue	Other	proprietary		0.001	mg	30303	7
				supplier	glue	Polycypropylenediamine	9046-10-0		0.001	mg	30303	7
				supplier	wire	Copper(Cu)	7440-50-8		0.499	mg	1000000	3327
Encapsulation	M-011 Other inorganic materials	92.477	mg	supplier	mold compound	Silica vitreous	60676-86-0		81.379	mg	879992	542527
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		4.624	mg	50002	30827
				supplier	mold compound	Phenolic resin	205830-20-2		3.607	mg	39004	24047
				supplier	mold compound	Epoxy type resin	proprietary		1.850	mg	20005	12333
				supplier	mold compound	Carbon black	1333-86-4		0.185	mg	2000	1233
				supplier	mold compound	other	proprietary		0.832	mg	8997	5547