



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*	2024-03-27
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*	giovanni giacopello	Representative title	ADGMaterial 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
LDLL16ENTR	B06D*UR2LAAM	A	P1C7	2024-03-27
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	69.00	mg	Each	ECOPACK® 2
Identity	Authority			
Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)			

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	Tin (Sn), matte, annealed	Copper Alloy	DM01056637	
Package designator	Package size	Number of instances	Shape	
QFN	5.00x5.00x1.00	32	No lead	
Comment	QFN 5X5X1 EPAD3.5 32L WETTF FLAN			



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 25th Feb 2022			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	0.059	die	855

QueryList : REACH-23rd January 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, 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		true

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		False

PFAS/PTFE Restriction		Response
Product contains Per- and Polyfluorinated Substance		False

BPA Restriction		Response
Product contains Bisphenol A (Isopropylidenediphenol)		False



Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	B06D*UR2LAAM					
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	6.552	mg	supplier	die	Silicon(Si)	7440-21-3		5.750	mg	877593	83335
				supplier	metallisation	Copper(Cu)	7440-50-8		0.525	mg	80128	7609
				supplier	metallisation	Cobalt(Co)	7440-48-4		0.001	mg	153	14
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.059	mg	9005	855
				supplier	metallisation	Palladium(Pd)	7440-05-3		0.019	mg	2900	275
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.001	mg	153	14
				supplier	metallisation	Tungsten(W)	7440-33-7		0.024	mg	3663	348
				supplier	passivation	Silicon oxide	7631-86-9		0.084	mg	12821	1217
				supplier	polymer coating	polyimide	proprietary		0.089	mg	13584	1290
				supplier	alloy	Copper(Cu)	7440-50-8		29.632	mg	872094	429449
Leadframe	M-004 Copper and its alloys	33.978	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.521	mg	15333	7551
				supplier	alloy	Iron phosphide	26508-33-8		0.121	mg	3561	1754
				supplier	alloy	Zinc(Zn)	7440-66-6		0.039	mg	1148	565
				supplier	metallization	Silver (Ag)	7440-22-4		3.665	mg	107864	53116
				supplier	glue	Silver(Ag)	7440-22-4		0.859	mg	845472	12449
Die attach	M-011 Other inorganic materials	1.016	mg	supplier	glue	Bismaleimide resin	35325-39-4		0.138	mg	135827	2000
				supplier	glue	Additives	proprietary		0.019	mg	18701	275
				supplier	wire	Copper(Cu)	7440-50-8		0.245	mg	1000000	3551
Bonding wires	M-004 Copper and its alloys	0.245	mg	supplier	wire	Copper(Cu)	7440-50-8		0.245	mg	1000000	3551
				supplier	mold compound	Silica vitreous	60676-86-0		22.866	mg	880003	331391
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		1.299	mg	49992	18826
				supplier	mold compound	Phenolic resin	205830-20-2		1.013	mg	38986	14681
				supplier	mold compound	Epoxy type resin	25068-38-6		0.520	mg	20012	7536
Encapsulation	M-011 Other inorganic materials	25.984	mg	supplier	mold compound	Carbon black	1333-86-4		0.052	mg	2001	754
				supplier	mold compound	other	proprietary		0.234	mg	9006	3391
				supplier	solder alloy	Tin (Sn)	7440-31-5		1.225	mg	1000000	17754
Connections coating	Solder	1.225	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.225	mg	1000000	17754