



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*	2024-07-24
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*	gregorio duro	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

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
STL160N6LF7	BSUO*OL6ER8F	A	998G	2024-07-24
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	110.00	mg	Each	ECOPACK® 2
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		
1	260	3		
Bulk solder termination	Terminal plating	Terminal base alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00643564	
Package designator	Package size	Number of instances	Shape	
Not Applicable	5.80x5.00x1.00	8	0	
Comment	Power FLAT 8L 6x5x1 P1.27			

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		false
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)		True
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions		False
Exemption Id.	Description	
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)	

QueryList : ELV directive : 2000/53/EC amended 2020/363_March 2020		Response
1 - Product(s) meets EU ELV requirements without any exemptions		False
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)		True
Exemption Id.	Description	
8(e)	8(e) - Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	

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
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.051	die	464
Lead	2.364	soft solder	21491

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				False
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	2.364	Soft solder	21491
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				False
CategoryLevel_Name	CategoryLevel_Threshold	Amount in embedded article / Homogeneous material (mg)	Application - article / Homogeneous material	ppm in article /Homogeneous material
Lead	1000 ppm	2.364	Soft solder	920202



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
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	BSUO*OL6ER8F					
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	1.488	mg	supplier	die	Silicon(Si)	7440-21-3		1.272	mg	854839	11562
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.084	mg	56452	764
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.051	mg	34274	464
				supplier	metallisation	Silver(Ag)	7440-22-4		0.024	mg	16129	218
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.011	mg	7392	100
				supplier	metallisation	Tungsten(W)	7440-33-7		0.021	mg	14113	191
				supplier	metallisation	Vanadium(V)	7440-62-2		0.002	mg	1344	18
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.002	mg	1344	18
				supplier	passivation	Silicon oxide	7631-86-9		0.021	mg	14113	191
				Leadframe	M-004 Copper and its alloys	48.040	mg	supplier	alloy	Copper(Cu)	7440-50-8	
supplier	alloy	Iron(Fe)	7439-89-6						1.085	mg	22585	9864
supplier	alloy	Iron phosphide	1310-43-6						0.065	mg	1353	591
supplier	alloy	Zinc(Zn)	7440-66-6						0.057	mg	1187	518
supplier	metallization	Silver (Ag)	7440-22-4						0.699	mg	14550	6355
Soft solder	Solder	2.569	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temperat	2.364	mg	920203	21491
				supplier	solder	Tin(Sn)	7440-31-5		0.128	mg	49825	1164
				supplier	solder	Silver(Ag)	7440-22-4		0.064	mg	24912	582
				supplier	solder	dry flux residue	proprietary		0.013	mg	5060	118
Bonding wires	M-008 Precious metals	0.046	mg	supplier	wire	Gold(Au)	7440-57-5		0.046	mg	1000000	418
Encapsulation	M-011 Other inorganic materials	57.832	mg	supplier	mold compound	Silica vitreous	60676-86-0		49.331	mg	853006	448464
				supplier	mold compound	Epoxy type resin	proprietary		2.313	mg	39995	21027
				supplier	mold compound	Phenol type resin	proprietary		2.024	mg	34998	18400
				supplier	mold compound	Magnesium hydroxide	1309-42-8		2.313	mg	39995	21027
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		1.157	mg	20006	10518
				supplier	mold compound	Zinc hydroxide	20427-58-1		0.578	mg	9994	5255
				supplier	mold compound	Carbon black	1333-86-4		0.116	mg	2006	1055
Connections coating	Solder	0.025	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.025	mg	1000000	227