

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32L031G6U3 STM32L031G6U3TR	77MB*425XXXX	A	998Z	23-07-2019
	Amount	UoM	Unit type	ST ECOPACK Grade
	24.36	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 Temp	Nbr of Reflow Cycles		 life.augmented
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable; if coating is used or other bulk termination	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	4X4X0.55	28	No lead	
Comment	Package : A0B0 UFQFPN 4X4X0.55 28L PITCH0.5 COL 8202209			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	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 : REACH-15th January 2019				
Query				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

Material Composition Declaration :						Mfr Item Name	77MB*425XXXX				5999999.0	1000012.1
note : Substance present with less 0.001mg will not be declared in this document												
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or dies	M-011 Other inorganic materials	1.884	mg	supplier	die	Silicon (Si)	7440-21-3		1.733	mg	919851	71146
				supplier	metallization	Aluminium (Al)	7429-90-5		0.013	mg	6900	534
				supplier	metallization	Copper (Cu)	7440-50-8		0.044	mg	23355	1806
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.005	mg	2654	205
				supplier	metallization	Titanium (Ti)	7440-32-6		0.007	mg	3715	287
				supplier	Passivation	Silicon Nitride	12033-89-5		0.012	mg	6369	493
				supplier	Passivation	Silicon Oxide	7631-86-9		0.070	mg	37155	2874
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Die Attach Epoxy_ABLEBOND 8006NS	M-011 Other inorganic materials	0.127	mg	Supplier	Metals	Silver	7440-22-4		0.090	mg	704535	3687
				Supplier	Plastics/polymers	Bisphenol-F, epoxy resin	9003-36-5		0.006	mg	48437	253
				Supplier	Organic Compounds	Fatty acids, polymers with epichlorohydrin	68475-94-5		0.006	mg	48437	253
				Supplier	Organic Compounds	Gamma Butyrolactone	96-48-0		0.006	mg	48437	253
				Supplier	Organic Compounds	Epoxy Resin Proprietary	Proprietary		0.006	mg	48437	253
				Supplier	Amines	Poly(Oxy(methyl-1, 2-ethanediyl))	9046-10-0		0.006	mg	48437	253
				Supplier	Metallic compounds	Copper Oxide	1317-38-0		0.006	mg	48437	253
				Supplier	Organic Compounds	1,4-Bis(2,3-epoxypropoxy) butane	2425-79-8		0.001	mg	4844	25
EMC_G770HCD_Sumitomo	M-011 Other inorganic materials	10.925	mg	Supplier	Plastics/polymers	Epoxy Resin	Proprietary		0.323	mg	29542	13249
				Supplier	Plastics/polymers	Phenol Resin	Proprietary		0.323	mg	29542	13249
				Supplier	Glass	Silica (Amorphous) A	60676-86-0		8.606	mg	787789	353317
				Supplier	Glass	Silica (Amorphous) B	7631-86-9		1.614	mg	147710	66247
				Supplier	Additives	Carbon Black	1333-86-4		0.059	mg	5416	2429
				Supplier	Metals	Gold	7440-57-5		0.193	mg	1000000	7911
BondingWire_Au_MKE	Bonding Wire	0.193	mg	Supplier	Metals	Gold	7440-57-5		0.193	mg	1000000	7911
Anode Ball_Tin_Asahi	Metals	0.286	mg	Supplier	Metals	Tin	7440-31-5		0.286	mg	1000000	11739
Leadframe_C7+NIPbAuAg_HDS	Metals	10.944	mg	Supplier	Metals	Nickel	7440-02-0		0.485	mg	44305	19906
				Supplier	Glass	Silicon	7440-21-3		0.078	mg	7125	3201
				Supplier	Metals	Magnesium	7439-95-4		0.019	mg	1720	773
				Supplier	Metals	Gold	7440-57-5		0.003	mg	295	133
				Supplier	Metals	Copper	7440-50-8		10.354	mg	946065	425059
				Supplier	Metals	Palladium	7440-05-3		0.005	mg	490	220