Chemicals contained in products

EPSON
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Package-type

Epson Package name; **SOP3C-8PIN / Halogen free**
JEITA Package name; **(P-LSOP08-04.40x05.00-1.27)**
Lead frame plating; **Lead(Pb) Free**
Weight; **0.077** [g] *Note1

Part	Subpart	Subpart weight [mg]	Substance name	CAS No.	Content ※2		Application
					[mg]	[ppm]	
IC Die	IC Die	4.0	Silicon	7440-21-3	4.0	999894	Base material
			Boron	7440-42-8	0.000008	2	Dopant
			Phosphorus	7723-14-0	0.00002	5	Dopant
			Aluminum	7429-90-5	0.00008	20	Metalization
			Arsenic *Note3	7440-38-2	0.00002	5	Dopant
			Fluorine *Note3	7782-41-4	0.000008	2	Dopant
			Titanium *Note3	7440-32-6	0.00008	20	Metalization
			Molybdenum *Note3	7439-98-7	0.00008	20	Metalization
			Tungsten *Note3	7440-33-7	0.0001	30	Metalization
			Cobalt *Note3	7440-48-4	0.000008	2	Metalization
	Stress buffer coat	0.079	Polyimide	-	0.079	1000000	Stress buffer coat *Note4
Package	Die Bonding material	0.15	Silver	7440-22-4	0.12	822222	Base material
			Epoxy resin	-	0.022	144444	Adhesive
			Phenol resin	-	0.005	33333	Adhesive
	Lead Frame Plating	0.69	Tin	7440-31-5	0.67	975000	Solder
			Silver	7440-22-4	0.017	25000	Solder
	Lead Frame	19	Nickel	7440-02-0	8.4	430000	Conductor
			Iron	1309-37-1	11.0	565000	Conductor
			Silver	7440-22-4	0.1	5000	Inner lead plating
	Bonding Wire	0.10	Gold	7440-57-5	0.10	1000000	Conductor
	Mold resin	53	Epoxy resin	-	4.7	90000	Base material
			Phenol resin	-	1.6	30000	Base material
			Silica	60676-86-0/-	44.1	839000	Filler
			Carbon black	1333-86-4	0.16	3000	Coloring agent
			Organic phosphorous compound	-	0.42	8000	Hardening accelerator
			Metal hydroxide	-	1.6	30000	Flame retardant

Regarding the information of chemical substances

*Note1 The weight might be somewhat different depending on an individual built-in IC-chip specification like the size etc.
*Note2 Content data are estimated values based on supplier information and intended levels of content in product.
Actual measurements may vary from these values somewhat.
*Note3 Use or not-use of these substances depends on individual built-in IC-chip specification.
*Note4 The stress buffer coat may not be used depending on the individual model.