

Section 1 - Chemical Product and Company Identification

Product Name

Multi-layer Ceramic Capacitor

Name of Manufacturer or Supplier of the goods

Premier Farnell plc

150 Armley Road, Leeds, LS12 2QQ

+44 (0) 8701 202530

Emergency telephone number

+44 1865 407333

Section 2 - Hazards Identification

Product hazard class : Not Available

Product hazard class : Not Available

Other hazards : Not Available

Section 3 - Composition/information on ingredients Pure material/Mixtures

Size	Weight (mg)	Size	Weight (mg)
01005	0.11	1206	30
0201	0.236	1210	48.62
0402	1.216	1808	55.6
0603	4.754	1812	83.4
0805	7.608		

Substance	CAS No.	Formula	Main purpose	Typical %
Strontium Oxide	1314-11-0	SrO	Dielectric Ceramic Body	11.778
Calcium Oxide	1305-78-8	CaO		13.59
Zirconium Dioxide	1314-23-4	ZrO ₂		45.3
Titanium Dioxide	13463-67-7	TiO ₂		1.812
Silica	14808-60-7	SiO ₂		13.59
Manganese Tetraoxide	1317-35-7	Mn ₃ O ₄		4.53
Nickel	7440-02-0	Ni	Inner Electrode	2.4
Barium Titanate	12047-27-7	BaTiO ₃		0.6
Copper	7440-50-8	Cu	Terminal Electrode	5.28
Lead Free Glass	65997-18-4	Lead Free Glass Frit		0.72
Nickel	7440-02-0	Ni	Under plating	0.2
Matte Tin	7440-31-5	Sn	Surface plating	0.2

Section 4 - First Aid Measures

The first aid measures for different exposure routes:

Inhalation : Not Available

Newark.com/multicomp-proFarnell.com/multicomp-prosg.element14.com/b/multicomp-pro

Skin contact : Not Available
Eye contact : Not Available
Ingestion : Not Available
The most important symptoms and hazardous effects
None
The protection of first-aiders : None
Notes to Physician : None

Section 5 - Fire-fighting measures

Suitable fire extinguishing media : This product is incombustible
Specific hazards may be encountered during fire-fighting : None
Specific fire-fighting methods : No
Special equipment for the protection of firefighters : No

Section 6 - Accidental release measures

Personal precautions : No
Environmental precautions : No
Methods for cleaning up : No

Section 7 - Handling and storage

Handling : No special advice
Storage : Following the method defined in MSL level 1

Section 8 - Exposure controls/personal protection

Engineering control : No

Control parameters:

8 hours time weighted average exposure limits/Short-term exposure limits/maximum exposure limits : No
Biological standards : No

Personal protective equipment:

Respiratory protection : No
Hand protection : No
Eye protection : No
Skin and body protection : No
Hygiene measures : No special requirement

Section 9 - Physical and chemical properties

Appearance
(physical state, colour, etc.) : Cuboid ceramic
Odor threshold : No defined
pH value : Not available

Flammability (solid, gas)	: incombustible
Decomposition temperature	: Not be tested
Auto-ignition temperature	: Incombustible
Vapor pressure	: Not Available
Density	: =6
Partition coefficient (n-octanol/water,log Kow)	: -
Odor:	: No
Melting point	: 1500°C
Boiling point/boiling point range	: Not be tested
Flash point	: °F °C: Not be tested
Test method	: Open cup Closed cup
Explosion limits	: Not Available
Vapor density	: Not Available
Solubility	: Not Available
Evaporation rate	: Not Available
Rated watt hour (WH)	: N/A

(Note: resistor, capacitor, conductor could not provide energy, they are called passive component)

Section 10 - Stability and reactivity

Stability	: Stable
Possible hazardous reactions under specific conditions	: No
Conditions to avoid	: No
Materials to avoid	: No
Hazardous decomposition products	: No

Section 11 - Toxicological information

Routes of exposure	: Not available
Symptoms	: No
Acute toxicity	: No
Chronic toxicity or long term toxicity	: No

Section 12 - Ecological information

Ecotoxicity	: No
Persistence and degradability	: -
Bioaccumulative potential	: -
Mobility in soil	: -
Other adverse effects	: No

Section 13 - Disposal considerations

Methods of waste disposal	: Follow the local regulation
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Section 14 - Transport information

United Nations number (UN No) : Not Available.
UN Proper shipping name : Not Available.
Transport hazard class (es) : Not Available.
Packing group : Not Available.
Marine pollutant (Yes/No) : No
Specific transport measures
and precautionary conditions : No

15. Regulatory information

Applicable regulations : 2011/65/EU, EC-1907-2006, (EU) 2015/863

16. Other information

No Information are available.

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