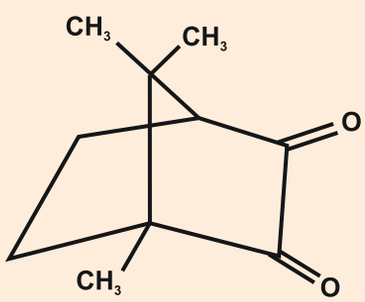
Sarex Overseas (A division of Sarex Organics Pvt. Ltd.)
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CAMPHORQUINONE

1. STRUCTURE



2. PRODUCT NAME & DETAILS

Camphorquinone

Product Code	**: 003290**
CAS No.	**: 10373-78-1**
HS Code	**: 2914.29.90**
Molecular formula	**: $C_{10}H_{14}O_2$**
Molecular weight	**: 166.220**

3. REGULATORY INFORMATION

Chemical name	Common names and synonyms	CAS number	EC number
Camphorquinone	--	10373-78-1	233-814-1

European Inventory of Existing Commercial Chemical Substances (EINECS)	Listed
EC Inventory	Listed
United States Toxic Substances Control Act (TSCA) Inventory	Listed
China Catalog of Hazardous chemicals 2015	Not Listed
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Listed
Korea Existing Chemicals List (KECL)	Not Listed
Canadian Domestic Substance List (DSL)	Listed
Canadian Non-Domestic Substance List (NDSL)	Not Listed
Japanese Existing and New Chemical Substances Inventory (ENCS)	Not Listed

4. SPECIFICATION

Physical Appearance	**: Yellow Powder**
Melting Point	**: 201-203°C**
Moisture Content (KF)	**: NMT 0.5%**
Solubility 2.5% in Methanol.	**: Clear Solution**
Selenium Content (AAS / IPC)	**: NMT 10 PPM**
Identity (FTIR)	**: Comparable with Std.**
Volatiles (GC)	**: NMT 0.20%**

Disclaimer
Typical properties should not be considered as specification.
Product covered by valid patents are not offered or supplied for commercial use. The Patent position should be verified by the customer.
Products will not be supplied to countries where they could be in conflict with existing patents.
Products currently covered by valid US patents are offered for R&D use in accordance with 35 USC 271 (e) (I)
Above information is given in good faith and without warrenty.

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CAMPHORQUINONE

4. SPECIFICATION

Purity (GC)	**: NLT 99.0%**
Camphor (GC)	**: NMT 0.20%**
Camphorquinone Anhydride (GC)	**: NMT 0.70%**
Camphor Acyloin (GC)	**: NMT 0.10%**

5. APPLICATION

- They are used in Resin based composites (RCB), which are frequently used in Denstry.
- These Resins are cured by LED lights, which are activated by Photo initiators additive.
- Camphorquinone is one of the leading photo initiators used in Dental Resin based composites.
- Camphorquinone contains Selenium content less than 10 PPM therefore it is safe for Dental application.
- The minimum optimum concentration of camphorquinone in BISGMA/TEGDMA flowable composite is 1 % weight of resin matrix, which allows adequate balance among degree of conversion, depth of cure, mechanical properties and color characteristics of these materials. (Refer Hindawi, BioMed Research International, Volume 2018, Article ID 7921247, 10 pages).
- STUDIA UBB PHYSICA, Volume 61, (Lx1), 2, 2016, pp 720 Studied the photophysics of photo initiator Camphorquinone bu using time-dependent Density Functional Theory method, i.e. DFT calculations. Adsorption and emission spectra of photo initiator Camphorquinone had been calculated, the calculated electronic absorption energy at 484 nm was in excellent agreement with available experimental data.
- Biomaterials 24 (2003) 2097-2103 studied the Camphorquinone/amine photo initiator system using blue light emitting diodes. These results suggest that the new LED unit perform better than conventional halogen units with respect to light energy.

6. HAZARD CLASSIFICATION

: Non-hazardous Substance.



Irritant

7. ANNUAL CAPACITY

: 12 MT.

8. STORAGE CONDITION

: Store in closed container at ambient temperature. Avoid direct sunlight.

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9. PACKING DEATILS : Outer Packing : 25 kg HDPE Open Mouth Drum
Inner Packing : 2 plastic liner with strip seal individually on each liner

10. SHELF LIFE : 3 years.

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