

SECTION 1: IDENTIFICATION OF THE SUBSTANCE /MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier: Llis.

1.2 Recommended use and restrictions on use: Light curing composite resin for anterior and posterior teeth.

1.3 Supplier's details: Dentscare Ltda, Avenida Edgar Nelson Meister, 474, Joinville, Brasil.

1.4 Emergency telephone number: xx55 47 3441 6100.

SECTION 2: HAZARD IDENTIFICATION

2.1 Hazard classification: No Hazardous Ingredients identified.

2.2 Label elements: Professional use only.

2.3 Other hazards: The material is contraindicated if the person is allergic to any of the ingredients of the product.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical characterization: Mixture.

INGREDIENT:	CAS N. A:	CLASSIFICATION:	% CONCENTRATION:
Silane treated ceramic	44758-98-9	-	65-75%
Silane treated silicodioxide	248596-91-0	-	5-10%
Bis(EMA)	24448-20-2	R36/37/38	5-10%
Bis (GMA)	1565-94-2	R36/37/38	6-8%
TEGDMA	109-16-0	R36/37/38	<5%
Camphorquinone	465-29-2	R36/37/38	<1%
Ethyl 4-dimethylaminobenzoa.	10287-53-3	R36/37/38	<1%

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Inhalation: Remove person to fresh air.

4.1.2 Skin contact: Wash with soap and water abundantly. If symptoms persist, seek medical assistance.

4.1.3 Eye contact: Wash with water abundantly. If symptoms persist, seek medical assistance.

4.1.4 Ingestion: If ingested, do not induce vomit. Seek medical assistance.

4.2 Most important symptoms and effects, both acute and delayed: See Section 11. Information on toxicological effects.

4.3 Indication of any immediate medical attention and special treatment required: Not applicable.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media: Use fire extinguishers with class A extinguishing agents (e.g. water, foam).

5.2 Special hazards arising from the substance or mixture: Not applicable.

5.3 Special protective actions for fire-fighters: Wear full protective equipment and a self-contained breathing apparatus (SCBA).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Ventilate the area with fresh air. See other sections of this MSDS for information about the physical dangers and health, respiratory protection, ventilation and personal protective equipment.

6.2 Environmental precautions: Non-defined.

6.3 Methods and material for containment and cleaning up: Clean up mechanically. Dispose of according to local and national regulations.

6.4 Reference to other sections: Non-defined.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling: Keep it away from high temperatures.

7.2 Conditions for safe storage including any incompatibilities: Keep the product in a cool place with the packing always well shut and protected. Avoid exposure to direct sunlight. Keep at temperatures of 5° - 30°C/ 41 – 86F.

7.3 Specific end use(s): The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters: Not Applicable.

8.2 Exposure controls

8.2.1 Eye/face protection: Utilize protective glasses with side shields and mask.

8.2.2 Skin protection – hand protection: Gloves.

8.2.3 Skin protection - other: Utilize protective goggles.

8.2.4 Respiratory protection: Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

8.2.5 Thermal hazards: Non-defined.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) **Appearance (form and colour):** Viscous paste. Colour: Off-white to cream.

b) **Smell:** Slight odor methacrylate.

c) **Odour threshold:** No data available.

d) **pH:** No data available.

e) **Melting point/Melting range:** No data available.

f) **Boiling point/Boiling range:** Not applicable.

g) **Flash point:** Not Applicable.

- h) **Evaporation rate:** Not Applicable.
- i) **Flammability (solid, gaseous):** No data available.
- j) **Lower/upper explosion limit:** No data available.
- k) **Vapor pressure:** Not Applicable.
- l) **Vapor density:** Not Applicable.
- m) **Relative density:** No data available.
- n) **Solubility (s):** Nearly insoluble in water.
- o) **Partition coefficient: n-octanol/water:** Not Applicable.
- p) **Autoignition temperature:** Not Applicable.
- q) **Decomposition temperature:** Not Applicable.
- r) **Viscosity:** No data available.
- s) **Explosive properties:** Not Applicable.
- t) **Oxidising properties:** Not Applicable.

9.2 **Other information:** Not Applicable.

SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity:** Not Applicable.

10.2 **Chemical stability:** Stable under normal conditions of storage and handling.

10.3 **Possibility of hazardous reactions:** None.

10.4 **Conditions to avoid:** Exposure to blue or ultra-violet light and high temperatures causes the light curing of the product.

10.5 **Incompatible materials:** Not Applicable.

10.6 **Hazards decomposition products:** CO₂, during combustion.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 **Acute toxicity:** Oral - Rattus norvegicus - lineage Wistar – single dose : 2000mg / kg - 14 days. During the trial period, there was no mortality or any other symptoms among the animals tested. The product complies with the requirements of absence of toxicity.

11.1.2 **Irritation:** May be irritating to eyes, mucous membranes or skin on contact or with prolonged exposure.

11.1.3 **Corrosion:** Not Applicable.

11.1.4 **Sensitization:** May be sensitizing. Prolonged or frequent skin contact may cause allergic skin reactions in some susceptible individuals.

11.1.5 **Repeated dose:** Not Applicable.

11.1.6 **Carcinogenicity:** Not Applicable.

11.1.7 **Mutagenicity:** Not Applicable.

11.1.8 **Reproductive toxicity:** Not Applicable.

SECTION 12: ECOLOGICAL INFORMATION

- 12.1 Toxicity:** No data available.
- 12.2 Persistence and degradability:** No data available.
- 12.3 Bioaccumulative potential:** No data available.
- 12.4 Mobility in soil:** No data available.
- 12.5 Results of PBT and vPvB assessment:** No data available.
- 12.6 Other adverse effects:** No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods:** In accordance with the governmental regulations of your country.

SECTION 14: TRANSPORT INFORMATION

- 14.1 UN-Number:** Not Applicable.
- 14.2 UN proper shipping name:** Not Applicable.
- 14.3 Transport hazard class(es):** Not Applicable.
- 14.4 Packing group:** Not Applicable.
- 14.5 Environmental hazards:** Not Applicable.
- 14.6 Special precautions for user:** Not Applicable.
- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not Applicable.

SECTION 15: REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:** These Material Safety Data were prepared according to Regulation (EC) N° 453/2010.
- 15.2 Chemical Safety Assessment:** Not Applicable.

SECTION 16: OTHER INFORMATION

The information and recommendations are based on the MSDS and information of the raw material manufacturers. Dentscare Ltda CNPJ 05.106.945/000106, is not responsible for the accuracy of this information or the need for additional information.