

SAFETY DATA SHEETS

This SDS packet was issued with item:

076469696

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

076469613 076469621 076469639 076469647 076469654 076469688 076469704 076469712 076469720 076469738

076469779 076469787 076469795 076469803 076469811 076469829

1. Chemical Product and Contact Information

Product Name: FibreKor® Post
Material Safety Sheet Number: 00037
Date of Issue: 09/14/98
Revision Date: 12/02/09
Company Identification: Pentron Clinical
1717 West Collins Ave.
Orange, CA 92867
Phone: 800-551-0283
203-265-7397
Emergency Information Chemtrec: 800-424-9300
Chemtrec International: 202-483-7616

2. Composition/Information on Ingredients

Chemical characteristics: Mixture of cured copolymers BISGMA, UDMA, HDDMA. Bariumborosilicate* glasses, barium sulfate, glass fibers. Initiators: DEAEMA, BHT, Photo and heat curing agents, UV absorbers, silane-coupling agent.
* contains alumina as minor constituent of the glass.

Description: Glass fiber reinforced composite.

Hazardous components: None known.

Element	CAS #	Exposure Limit mg/m ³	
		OSHA PEL	ACGIH TLV
Methacrylate copolymer	N/A	N/A	N/A
Inorganic fillers & glass fibers in polymer matrix	Various	N/A	N/A

3. Hazard Identification

Risk identification: None known.
Special risks for human beings and environment: None in rod form. Breathing, skin and eye contact of dust and fibers may cause short term irritation and itching of the mouth, nose, throat, skin and eyes. May cause short term mechanical irritation of the stomach and intestines. There is no known chronic health effects connected with long term use or contact with this product.
Classification: Unknown.

4. First Aid Measures

General information:
After skin contact: Immediately wash with soap and plenty of water for 15 minutes. Consult a physician if irritation occurs.
After eye contact: Immediately flush eyes with plenty of water for 15 minutes. Consult an ophthalmologist if needed.
Inhalation of dust: Move the person to fresh air and seek medical attention if irritation persists.
After swallowing: Consult a physician immediately. Expectorate or induce vomiting. Seek fresh air.

5. Fire Fighting Measures

Extinguishing media: Water, chemical foam, carbon dioxide or dry chemical.
Protective equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measures

Personal precautions:
Environmental precautions: Store in air conditioned room. Follow common hygienic measures. Do not breathe in dust. Absorb with inert material. Collect in closed containers and dispose of as recommended. Avoid skin contact, wear protective equipment.
Methods for cleaning up: Dispose in accordance to Federal, State, and local regulations.
Additional information: Machining must be done in local ventilation.

7. Handling and Storage

Handling: Always handle with care.
Handling procedures: Keep container closed to prevent the material from contamination.
Recommendation for fire and explosion protection: Not applicable.

8. Exposure Controls/Personal Protection

Additional information:

Personal protective equipment:

General measure of protection and hygiene:

Protective gloves, goggles are recommended.

Routing health care personnel treatment procedures as commonly practiced in the dental health care industry.

Not applicable.

Respiration:

Hands:

Eyes:

Protective gloves.

OSHA approved goggles.

9. Physical and Chemical Properties

Appearance:

Form:

Cured fiber-reinforced rods.

Color:

Opaque white.

Odor:

None.

Information on change in the physical state

Melting point/melting range:

Not applicable.

Boiling point/boiling range:

Not applicable.

Flash point:

None known.

Autoignition temperature:

Not applicable.

Danger of explosion:

None known.

Density:

Not applicable.

Vapor pressure:

Not applicable.

Viscosity:

Not applicable.

pH:

Not applicable.

Solubility in/miscibility with water:

None.

Content of solvents:

None.

Organic solvents:

None.

Water:

None.

Content of solids:

100%

10. Stability and Reactivity

Incompatibility with other substances:

Stable in air and water.

Hazardous decomposition products:

Hydrocarbons, oxides of sulfur.

11. Toxicological Information

Carcinogenicity:

NTP: not listed

IARC Monographs: not listed

OSHA Regulated: not listed

TLV:

Primary Routes of entry:

Inhalation (in dust form)/ingestion, skin, and eyes.

12. Ecological Information

General information:

Unknown.

Classification of water endangerment:

Unknown.

13. Disposal Considerations

Disposal consideration:

Dispose in accordance with Federal, State and local regulations.

14. Transport Information

Not classified as dangerous goods in consumer quantity.

15. Regulatory information

Classification according to EEC guidelines:

Unknown.

National Prescriptions:

Unknown.

Classification according to VbF:

Unknown.

16. Other Information

The information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof. Pentron Clinical however, makes no representations as to the completeness or accuracy of this information and supplies it on the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Pentron Clinical be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

Section 1. Identification**GHS product identifier** : FibreKor™ Fiber Post**Other means of identification** : Not available.**Product type** : Post**Relevant identified uses of the substance or mixture and uses advised against****Product use** : Dental product: Post and Core**Area of application** : Professional applications.**Manufacturer** : **Pentron Clinical**
1717 West Collins Avenue
Orange, CA 92867-5422
Telephone no.: 1-203-265-7397, Toll Free: 1-800-551-0283**e-mail address of person responsible for this SDS** : edwin.varela@kavokerrgroup.com**Emergency telephone number (with hours of operation)** : CHEMTREC® (24 hours) U.S. : 1-800-424-9300 International: +1-703-527-3887**Section 2. Hazards identification****OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).**Classification of the substance or mixture** : TOXIC TO REPRODUCTION (Fertility) - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 38.8%

GHS label elements**Hazard pictograms** :**Signal word** : Warning**Hazard statements** : Suspected of damaging fertility.**Precautionary statements****Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.**Response** : IF exposed or concerned: Get medical attention.**Storage** : Store locked up.**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.**Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available.

CAS number/other identifiers

CAS number : Not applicable.
Product code : Not available.

Ingredient name	Other names	%	CAS number
1,6-hexanediyl bismethacrylate	1,6-hexanediyl bismethacrylate	10-30	6606-59-3
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate	7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate	5-10	72869-86-4
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	0.1-1	75980-60-8
2-(Diethylamino)ethyl methacrylate	2-(diethylamino)ethyl methacrylate	0.1-1	105-16-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : No special measures are required. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.

Inhalation : No special measures required. If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Skin contact : No special measures required. In case of contact, immediately flush skin with plenty of water. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Get medical attention if adverse health effects persist or are severe.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Section 4. First aid measures

- Skin contact** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : In case of major fire and large quantities: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : No specific fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides
Hydrocarbon.

- Special protective actions for fire-fighters** : In case of major fire and large quantities: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Low release. For professional use only. Handling of product in very small amounts or in situations where release is highly unlikely
- For emergency responders** : Low release. See also the information in "For non-emergency personnel".

- Environmental precautions** : Low release. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Section 6. Accidental release measures

Methods and materials for containment and cleaning up

- Small spill** : Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container.
- Large spill** : Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : No special measures are required for small quantities under normal and intended conditions of product use. For professional use only. Put on appropriate personal protective equipment (see Section 8). Handle with care and dispose in a safe manner.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

- Appropriate engineering controls** : No special measures are required for small quantities under normal and intended conditions of product use.

- Environmental exposure controls** : No special measures are required for small quantities under normal and intended conditions of product use.

Individual protection measures

- Hygiene measures** : No special measures are required for small quantities under normal and intended conditions of product use.

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

- Body protection** : No special measures are required for small quantities under normal and intended conditions of product use.

Section 8. Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : No special measures are required for small quantities under normal and intended conditions of product use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Solid. [Post]
- Color** : White. (Opaque.)
- Odor** : Odorless.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : Not available.
- Solubility** : Insoluble in the following materials: cold water and hot water.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- SADT** : Not available.
- Viscosity** : Not available.

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-(Diethylamino)ethyl methacrylate	LC50 Inhalation Vapor	Rat	11 g/m ³	4 hours
	LD50 Oral	Rat	4696 mg/kg	-

Conclusion/Summary : Based on the criteria of the protocol, this product is considered non-cytotoxic per ISO 10993-5.
Based on analysis and test results, this product is considered as biocompatible per EN ISO 7405:2008 and EN ISO 10993-1:2009.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Conclusion/Summary

Skin : Not sensitizing

Mutagenicity

Not available.

Conclusion/Summary : Not mutagenic in Ames test.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
1,6-hexanediyl bismethacrylate	Category 3	Not applicable.	Respiratory tract irritation
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate	Category 3	Not applicable.	Respiratory tract irritation
2-(Diethylamino)ethyl methacrylate	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : No known significant effects or critical hazards.

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Section 11. Toxicological information

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

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: 12/18/2014

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Version : 1

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Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate	3	-	low
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	-	53 to 72	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) PAIR: mequinol
United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
1,6-hexanediyl bismethacrylate	10-30	No.	No.	Yes.	Yes.	No.
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate	5-10	No.	No.	Yes.	Yes.	No.
diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	0.1-1	No.	No.	No.	No.	Yes.
2-(Diethylamino)ethyl methacrylate	0.1-1	No.	No.	No.	Yes.	No.

SARA 313

Not applicable.

State regulations

Massachusetts : The following components are listed: MINERAL WOOL FIBER; BARIUM SULFATE

New York : None of the components are listed.

New Jersey : The following components are listed: BARIUM SULFATE; SULFURIC ACID, BARIUM SALT (1:1)

Pennsylvania : The following components are listed: BARIUM SULFATE

California Prop. 65

None of the components are listed.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	0
Flammability		0
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

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Version : 1

Prepared by : IHS

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- UN = United Nations

References : HCS (U.S.A.)- Hazard Communication Standard
International transport regulations

▀ Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.