

BIOCOMPATIBILITE

La résine Polycarbonate est bien connue en optique, pour ses applications biomédicales (verres de contact) . elle présente une très bonne biocompatibilité. La double polymérisation permet une conversion maximale (supérieure à 99%) des monomères. La lixiviation par les fluides salivaires et le relargage des monomères dans les tissus environnants, cause essentielle et bien connue du risque de cytotoxicité des composites est ainsi écartée. Le traitement thermique en dépression a aussi pour effets d'évacuer les composés volatiles, et de cristalliser le Polycarbonate en structure stable, se différenciant de la structure amorphe et réactive des résines.

CYTOTOXICITY				
Bio-Technics Laboratories inc. Los angeles CA				
- Microbiologist examiner: J.Vocos				
- Microbiologist supervisor : M.Espinosa				
● MEM ELUTION, L929 ; Specimen A = PCDMA no aging				
		# B = PCDMA 24 Hours		
		# C = PCDMA 07 Days		
● RESULTS:	Conf of Cell	Crenation	Vacuolization	Cytolysis
# A =	0	0	0	0
# B =	0	0	0	0
# C =	0	0	0	0
↓ Controle =	0	0	0	0
↑ Controle =	4	4	4	4

Effect of Conquest Sculpture composite resin on oral mucous membranes of golden Syrian hamsters			
Irritation index			
Material	N	Score	Judgment
Conquest Sculpture	6	2,3	Minimal
Negative Control	5	2,8	Minimal
Positive Control	5	9,6	Moderate

étude Dr. Yiming Li, Indiana University.

Sculpture® Plus Composite MSDS

Section 1: Product and Company Identification

Product Name: Sculpture® Plus Nano-Hybrid Indirect Restorative Composites (Body, Incisal, Opaqueous Body, Neck Paste, Range Modifier)
Material Safety Sheet Number: 00201
Date of Issue: 3/08/03
Revision Date: Not applicable

Company Identification:

Pentron® Laboratory Technologies, LLC
P.O. Box 724, Wallingford, CT U.S.A. 06492
Phone: 800-243-3100 / 203-265-7397
Emergency Information Chemtec:
800-424-9300
Chemtec International: 202-483-7616

2. Composition/Information on Ingredients

Chemical Characteristics: A blend of difunctional methacrylates of PCBisGMA, EBPADMA, PCDMA, BisGMA, UDMA and HDDMA; silanated fillers such as barium boro-silicate glass, nano-particulated silica, zirconium silicate, photoinitiator, accelerator, stabilizer and pigments.
*contains a small amount of Al₂O₃

3. Hazard Identification

Risk Identification: Avoid eye contact and ingestion.
Special Risks for Human Beings and Environment: Avoid prolonged skin contact with uncured material. Adequate ventilation.
Classification: Classification corresponds to actual EEC guidelines.

4. First Aid Measures

General Information:

After skin contact: Wash with plenty of water and soap.
After eye contact: Rinse with plenty of water and consult a physician.
After swallowing: Seek medical advice immediately.

5. Fire Fighting Measures

Extinguishing Media: CO₂, water
Protective Equipment: Unknown

6. Accidental Release Measures

Personal Precautions: Protective gloves, goggles and others are recommended.
Environmental Precautions: Unknown
Methods for Cleaning Up: Wipe up with absorbent material.
Additional Information: Unknown

7. Handling and Storage

Storage: Store in a dry and cool place below 75°F. Protect from light source. Do not store in sunlight or hot areas. Store away from foodstuffs.

8. Exposure Controls/Personal Protection

Additional Information for Technical Plants: Unknown
Components with Limits of Values to be Supervised at the Workplace: Unknown. The product contains no relevant quantities of components with limits of values to be supervised at the workplace.
Additional Information:
Personal protective equipment: Protective gloves, goggles are recommended
General measure of protection and hygiene: Normal hygienic measures
Respiration: Not applicable
Hands: Protective gloves
Eyes: OSHA approved goggles

9. Physical/Chemical Properties

Appearance:

Form: Viscous paste
Color: Tooth colored
Odor: Slight ester-like odor
Melting Point/Melting Range: Not applicable
Boiling Point/Boiling Range: Not applicable
Flash Point: Not applicable
Autoignition Temperature: Unknown
Danger of Explosion: Not likely
Density: c.a. 1.8-1.9 g/cm³
Vapor Pressure: Not applicable
Viscosity: Paste

pH: Not applicable
Solubility in/Miscibility with Water: None
Content of Solvents: None
Organic Solvents: None
Water: None
Content of solids: >70%

10. Stability and Reactivity:

Stability: Avoid heat, direct sunlight.
Incompatibility With Other Substances: Avoid peroxides, strong oxidizers, reducing agents and free radical initiators.
Hazardous Decomposition Products: Not known

11. Toxicological Information

Allergic reaction to users and patients with known sensitivity to any ingredients of this composite is possible. The products are non-cytotoxic
Acute Toxicity: Not available

Primary Irritation:

Skin Contact: Yes. Skin absorption: Unknown.
Eye: Irritating
Inhalation: Non volatile
Ingestion: Possibly toxic when swallowed in excess amounts in the uncured state.
Sensitization of Product: Not observed
Additional Toxicological Information: Non-mutagenic

12. Ecological Information

General Information: Unknown
Classification of Water Endangerment: Unknown

13. Disposal Considerations

Product Recommendation: Use proper landfill disposal or incineration in accordance with local, state, and federal regulations.
Disposal Key Number: Unknown
Uncleaned Packaging: Unknown
Recommendation: Unknown

14. Transport Information

RID/ADR: Not a hazardous material

15. Regulatory information

Classification According to EEC Guidelines: No classification necessary to actual
EEC guidelines
National Prescriptions: Unknown
Classification according to VbF: Not applicable

16. Other Information

Revision Summary: No revisions have been made.

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Sculpture® Plus Color Paste MSDS

Section 1: Product and Company Identification

Product Name: Sculpture® Plus Color Paste
Material Safety Sheet Number: 00202
Date of Issue: 3/8/03
Revision Date: Not applicable
Company Identification:
Pentron® Laboratory Technologies, LLC
P.O. Box 724, Wallingford, CT U.S.A. 06492
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: A blend of difunctional methacrylates of PCBisGMA, EBPADMA, PCDMA, BisGMA, UDMA and HDDMA, fillers, curing agents, UV stabilizers, FDA & FDC approved pigments.

3. Hazard Identification

Risk Identification: None known in the cured form
Special Risks for Human Beings and Environment: Sensitivity to its ingredients

4. First Aid Measures

General Information:

After skin contact: Wash with plenty of water and soap.

After eye contact: Rinse with plenty of water and consult an

Ophthalmologist.

After swallowing: Seek medical advice immediately. Allow normal vomiting and

fresh air. Administer oxygen/perform CPR if required.

5. Fire Fighting Measures

Extinguishing Media: CO₂, sand, vermiculite/soda ash/foam for absorbance and fire deterrence

Protective Equipment: Protective clothing and gear including a self-contained breathing apparatus

6. Accidental Release Measures

Personal Precautions: Protective gloves, goggles and others are recommended

Environmental Precautions: Unknown

Methods for Cleaning Up: Wipe up with absorbent material or cure it with a visible light source and dispose the cured material as per local disposal codes.

Additional Information: Unknown

7. Handling and Storage

Storage: Store in a dry and cool place. Protect from light source. Do not store in high heat areas. Store away from foodstuffs.

8. Exposure Controls and Personal Protection

Personal Protective Equipment: Protective gloves, goggles are recommended

General Measure of Protection and Hygiene: Normal hygienic measures

Respiration: Use adequate general and local ventilation and OSHA approved respirators.

Hands: Protective gloves

Eyes: OSHA approved goggles

9. Physical and Chemical Properties

Appearance:

Form: viscous paste

Color: varying

Odor: ester-like odor.

Flash Point: >150°C (>300°F)

Autoignition Temperature: >260°C (>500°F)

Danger of Explosion: Not likely

Density: c.a. 1.12 g/cm³

pH: Not applicable

10. Stability and Reactivity

Stability: Avoid heat, direct sunlight.

Incompatibility With Other Substances: Avoid peroxides, strong oxidizers, reducing agents and free radical initiators. Will polymerize with light exposures (400–700nm wavelength). Insoluble in water in the polymerized state.

11. Toxicological Information

Allergic reaction to methacrylate by chronic exposure to product is possible.

Acute Toxicity: Not available

Primary Irritation:

Skin Contact: Yes. Skin absorption: Unknown

Eye: Irritating

Inhalation: Non-volatile

Ingestion: Possibly toxic when swallowed

Additional Toxicological Information: Non-mutagenic

12. Ecological Information

General Information: Unknown

Classification of Water Endangerment: Unknown

13. Disposal Considerations

Recommendation: Use proper landfill disposal or incineration in accordance with local, state, and federal regulations.

Disposal Key Number: Unknown

Uncleaned Packaging: Unknown

Recommendation: Unknown

14. Transport Information

RID/ADR: Not a hazardous material

15. Regulatory information

Not available

16. Other Information

Revision Summary: No revisions have been made.

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Sculpture® Plus LP Glaze MSDS

1. Chemical Product and

Contact Information

Product Name: Sculpture® Plus LP Glaze
Material Safety Sheet Number: 00199
Date of Issue: 3/8/03
Revision Date: Not applicable
Company Identification:
Pentron® Laboratory Technologies, LLC
P.O. Box 724, Wallingford, CT 06492 U.S.A.
Phone: 800-551-0283 / 203-265-7397
Emergency Information Chemtrec: 800-424-9300
Chemtrec International: 202-483-7616

2. Composition/Information on Ingredients

Proprietary mixture of various methacrylates with acetone and light curing activators
Acetone: less than 50%
Methyl Methacrylates: less than 10%

3. Hazard Identification

Risk Identification: None known
Special Risks for Human Beings and Environment: Sensitivity to its ingredients

4. First Aid Measures

General Information:

After skin contact: Wash with plenty of water and soap.
After eye contact: Rinse with plenty of water and consult an Ophthalmologist.
After swallowing: Seek medical advice immediately. Allow normal vomiting and fresh air. Administer oxygen/perform CPR if required.

5. Fire Fighting Measures

Extinguishing Media: CO₂, sand, vermiculite/soda ash/foam/ for absorbance and fire deterrence
Protective Equipment: Protective clothing and gear including a self-contained breathing apparatus

6. Accidental Release Measures

Personal Precautions: Protective gloves, goggles and others are recommended
Environmental Precautions: Unknown
Methods for Cleaning Up: Wipe up with absorbent material
Additional Information: Unknown

7. Handling and Storage

Storage: Store in a dry and cool place. Protect from light source. Do not store in high heat areas. Store away from foodstuffs.

8. Exposure Controls/Personal Protection

Personal Protective Equipment: Protective gloves, goggles are recommended
General Measure of Protection and Hygiene: Normal hygienic measures
Respiration: Use adequate general and local ventilation and OSHA approved respirators.
Hands: Protective gloves
Eyes: OSHA approved goggles

9. Physical and Chemical Properties

Appearance:

Form: liquid
Color: slightly yellow
Odor: ester-like odor.
Flash Point: -26°C (-15°F)
Autoignition Temperature: 538°C (1000°F)
Danger of Explosion: Not likely
Density: c.a. 1.03 g/cm³
pH: Not applicable
Solubility in/Miscibility with Water: None
Content of Solvents: <50%
Content of Solids: 0%

10. Stability and Reactivity

Stable. Avoid heat, direct sunlight.
Incompatibility With Other Substances: Avoid peroxides, strong oxidizers, reducing agents and free radical initiators. Will polymerize with light exposures (400–700nm wavelength). Insoluble in water in the polymerized state.

11. Toxicological Information

Allergic reaction to methacrylate by chronic exposure to product is possible.
Acute Toxicity: Not available
Primary Irritation:
Skin Contact: Yes. Skin absorption: Unknown.
Eye: Irritating
Inhalation: Non volatile
Ingestion: Possibly toxic when swallowed
Additional Toxicological Information: Non-mutagenic

12. Ecological Information

General Information: Unknown
Classification of Water Endangerment: Unknown

13. Disposal Considerations

Recommendation: Use proper landfill disposal or incineration in accordance with local, state, and federal regulations.
Disposal Key Number: Unknown
Uncleaned Packaging: Unknown
Recommendation: Unknown

14. Transport Information

RID/ADR: Not a hazardous material.

15. Regulatory information

Not available

16. Other Information

Revision Summary: No revisions have been made.
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Sculpture® Plus Thinning Liquid MSDS

Section 1. Product and Company Identification

Product Name: Sculpture® Plus Thinning Liquid
Material Safety Sheet Number: 00200
Date of Issue: 3/8/03
Revision Date: Not applicable
Company Identification:
Pentron® Laboratory Technologies, LLC
P.O. Box 724, Wallingford, CT 06492 U.S.A.
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: A blend of difunctional methacrylates of PCBiS/GMA, EBPADMA, PCDMA, BisGMA, UDMA and HDDMA, curing agents and UV stabilizers.

3. Hazard Identification

Risk Identification: None known in the cured form

Special Risks for Human Beings and Environment: Sensitivity to its ingredients

4. First Aid Measures

General Information:

After skin contact: Wash with plenty of water and soap.

After eye contact: Rinse with plenty of water and consult an Ophthalmologist.

After swallowing: Seek medical advice immediately. Allow normal vomiting and fresh air. Administer oxygen/perform CPR if required.

5. Fire Fighting Measures

Extinguishing Media: CO₂, sand,

vermiculite/soda ash/foam for absorbance and fire deterrence

Protective Equipment: Protective clothing and gear including a self-contained breathing apparatus

6. Accidental Release Measures

Personal Precautions: Protective gloves,

goggles and others are recommended

Environmental Precautions: Unknown

Methods for Cleaning Up: Wipe up with absorbent material or cure it with a visible light source and dispose the cured material as per local disposal codes.

Additional Information: Unknown

7. Handling and Storage

Storage: Store in a dry and cool place. Protect from light source. Do not store in high heat areas. Store away from foodstuffs.

8. Exposure Controls/Personal Protection

Personal Protective Equipment: Protective gloves, goggles are recommended

General Measure of Protection and Hygiene: Normal hygienic measures

Respiration: Use adequate general and local ventilation and OSHA approved respirators

Hands: Protective gloves

Eyes: OSHA approved goggles

9. Physical and Chemical Properties

Appearance:

Form: liquid

Color: slightly yellow

Odor: ester-like odor

Flash Point: >150°C (>300°F)

Autoignition Temperature: >260°C (>500°F)

Danger of Explosion: Not likely

Density: c.a. 1.10 g/cm³

pH: Not applicable

10. Stability and Reactivity

Stability: Avoid heat, direct sunlight.

Incompatibility With Other Substances: Avoid peroxides, strong oxidizers, reducing agents and free radical initiators. Will polymerize with light exposures (400–700nm wavelength). Insoluble in water in the polymerized state.

11. Toxicological Information

Allergic reaction to methacrylate by chronic exposure to product is possible.

Acute Toxicity: Not available

Primary Irritation:

Skin Contact: Yes. Skin absorption: Unknown.

Eye: Irritating

Inhalation: Non volatile

Ingestion: Possibly toxic when swallowed

Additional Toxicological Information:

Non-mutagenic

12. Ecological Information

General Information: Unknown

Classification of Water Endangerment: Unknown

13. Disposal Considerations

Recommendation: Use proper landfill disposal or incineration in accordance with local, state, and federal regulations.

Disposal Key Number: Unknown

Uncleaned Packaging: Unknown

Recommendation: Unknown

14. Transport Information

RID/ADR: Not a hazardous material

15. Regulatory information

Not available

16. Other Information

Revision Summary: No revisions have been made

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