1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name Blockout Resin

Other means of identification

Synonyms None

Product Type Professional dental product

Recommended use of the chemical and restrictions on use

Recommended Use Professional dental restorative

Uses advised against No information available

Supplier's details

Supplier Address DenMat
1017 W. Central Ave.
Lompoc, CA 93436
TEL: 805-346-3700

Emergency telephone number

Emergency Telephone Number 805-346-3700

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Skin Sensitizer</th>
<th>Category 1B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Corrosion/Irritation</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word

Hazard Statements

- Causes serious eye irritation
- May cause respiratory irritation.
Precautionary Statements

Prevention
• Wash face, hands and any exposed skin thoroughly after handling.
• Avoid breathing dust/fume/toxic gas/mist/vapors/spray.
• Use only outdoors or in a well-ventilated area.
• Keep container tightly closed.
• Wear protective gloves/protective clothing/eye protection/face protection.
• Keep cool

General Advice
None

Eyes
• IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
• IF eye irritation persists: Get medical advice/attention

Skin
• IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Inhalation
• If INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
• Call a POISON CENTER or doctor/physician if you feel unwell

Fire
• In case of fire: Use CO2, dry chemical, or foam for extinction

Storage
• Store locked up.

Disposal
• Dispose of contents/container to an approved waste disposal plant.

Hazard Not Otherwise Classified (HNOC)
Not applicable

Other information
Aspiration hazard if swallowed - can enter lungs and cause damage. Harmful to aquatic life

<5% of the mixture consists of ingredient(s) of unknown toxicity.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Trade secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethoxylated bis-phenol-A dimethacrylate</td>
<td>41637-38-1</td>
<td>20-30</td>
<td>*</td>
</tr>
<tr>
<td>urethane dimethacrylate</td>
<td>72869-86-4</td>
<td>10-20</td>
<td>*</td>
</tr>
<tr>
<td>silica</td>
<td>68611-44-9</td>
<td>1-5</td>
<td>*</td>
</tr>
<tr>
<td>2-(2' hydroxy-5'-octylphenyl) benzotriazole</td>
<td>3147-75-9</td>
<td>1-5</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of necessary first-aid measures

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Consult a physician.

Skin Contact
Wash off with warm water and soap. Consult a physician if necessary.

Inhalation
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If feeling unwell, seek medical attention.

Ingestion
Rinse oral cavity with copious water. If feeling unwell, call a physician or Poison Control Center immediately.

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects
Mild skin irritation

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

Notes to Physician
Not Applicable

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
None

Specific Hazards Arising from the Chemical
None

Explosion Data
Sensitivity to Mechanical Impact
None.
Sensitivity to Static Discharge
None.

Protective Equipment and Precautions for Firefighters
Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions
Ensure adequate ventilation. Avoid breathing vapors or mists.
Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

Environmental Precautions
Environmental Precautions
Avoid release to the environment. Dispose of contents/container to an approved waste disposal plant. See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for Containment
Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up
Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling
Ensure adequate ventilation. Avoid breathing vapors. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities

Storage
Keep containers tightly closed in a dry, cool and away from direct sunlight.

Incompatible Products
Strong acids. Strong oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Occupational Exposure Limits
None Established

Appropriate engineering controls

Engineering Measures
Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection
Safety glasses with side-shields. Tightly fitting safety goggles.

Skin and Body Protection
Long sleeved clothing. Impervious gloves.

Respiratory Protection
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks/ - Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>Not Applicable</td>
<td></td>
</tr>
<tr>
<td>Melting Point/Range Boiling</td>
<td>Not Applicable</td>
<td></td>
</tr>
<tr>
<td>Point</td>
<td>Not Applicable</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not Applicable</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>upper flammability limit</td>
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<td>None known</td>
</tr>
<tr>
<td>lower flammability limit</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapor Pressure</td>
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<td>None known</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not Applicable</td>
<td>None known</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.75-1.85 @ 25°C</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Insoluble</td>
<td>None known</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Partially soluble in acetone and ethanol</td>
<td>None known</td>
</tr>
</tbody>
</table>

Information on basic physical and chemical properties

Partition coefficient: n-octanol/water: No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: Medium viscosity
Flammable Properties: Not flammable
Explosive Properties: No data available
Oxidizing Properties: No data available

10. STABILITY AND REACTIVITY

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal conditions.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Ignitions sources - heat, sparks and open flames.

Incompatible materials

Strong acids. Strong oxidizing agents.

Hazardous decomposition products

None known based on information supplied.
11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

**Product Information**
The product itself has not been tested. Data is for major component in product.

**Inhalation**
May cause drowsiness and dizziness based on components. May cause irritation of respiratory tract.

**Eye Contact**
Irritating to eyes.

**Skin Contact**
May cause skin irritation and/or dermatitis.

**Ingestion**
Potential for aspiration if swallowed. Vomiting may aspirate into lungs and cause chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms**
May cause drowsiness and dizziness. Eye contact with liquid may cause irritation including stinging, burning, tearing, or reddening of the eyes.

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

**Sensitization**
No information available.

**Mutagenic Effects**
No information available.

**Carcinogenicity**
No information Available.

**Acute Toxicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
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<tr>
<td>ethoxylated bis-phenol-A dimethacrylate</td>
<td>LD 50 Oral</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
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<tr>
<td>urethane dimethacrylate</td>
<td>LD 50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
</tr>
</tbody>
</table>

**Reproductive Toxicity**
No information available.

**STOT - single exposure**
No information available.

**STOT - repeated exposure**
No information available.

**Target Organ Effects**
Respiratory system.

**Aspiration Hazard**
Based on product level data, this product does not meet the requirement to be classified as an aspiration hazard. However, this product contains an ingredient that may cause aspiration if swallowed.

12. ECOLOGICAL INFORMATION

**Ecotoxicity**
The environmental impact of this product has not been fully investigated.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to Algae</th>
<th>Toxicity to Fish</th>
<th>Daphnia Magna (Water Flea)</th>
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</thead>
<tbody>
<tr>
<td>ethoxylated bis-phenol-A dimethacrylate 41637-38-1</td>
<td>EC50 48h &gt;100 mg/l OECD Guideline 201</td>
<td>LD50 96h &gt;100 mg/l OECD Guideline 203</td>
<td>EC50 48h &gt;100 mg/l OECD Guideline 202</td>
</tr>
<tr>
<td>urethane dimethacrylate 934705-15-4</td>
<td>EC50 72 h 0.68mg/l</td>
<td>Not Established</td>
<td>EC50 24 h 1.2 mg/l</td>
</tr>
</tbody>
</table>

**Persistence and Degradability**
No information available.

**Bioaccumulation**
No information available.

**Other Adverse Effects**
No information available.
13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods
This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging
Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT

<table>
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<th>UN-Number</th>
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<td>Hazard Class</td>
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<tr>
<td>Packing Group</td>
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<tr>
<td>Description</td>
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<td>Emergency Response Guide Number</td>
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TDG

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MEX

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IATA

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IMDG/IMO

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<td>Proper Shipping Name</td>
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<tr>
<td>Hazard Class</td>
<td></td>
</tr>
<tr>
<td>Packing Group</td>
<td></td>
</tr>
</tbody>
</table>
15. REGULATORY INFORMATION

International Inventories

TSCA
All components of this product are either listed or are exempt on the TSCA inventory.

Legend
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65
None of the components are listed

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>State</th>
<th>Components Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts</td>
<td>The following components are listed: Amorphous silica</td>
</tr>
<tr>
<td>New York</td>
<td>None of the components are listed</td>
</tr>
<tr>
<td>New Jersey</td>
<td>Fluorides; barium compounds</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>Barium compounds; silica</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and Chemical Hazards</th>
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</thead>
<tbody>
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<td>1</td>
<td>0</td>
<td>0</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Physical Hazard</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>
General Disclaimer
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet